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To study heart rate and blood pressure response to cold pressor test in normotensive overweight and normotensive normal weight individuals

Vishnu Santhosh Menon

Introduction: Overweight individuals show exaggerated response to Cold Pressor test (CPT); but studies related to CPT response in normotensive Overweight individuals are very scant. Since Overweight / obesity are predisposing factors for hypertension, therefore by observing individual's response to CPT, one might be able to predict susceptibility of individual to develop hypertension in future. The present project aims to Study Heart rate and Blood Pressure responses to CPT in Normotensive overweight and Normotensive normal-weight individuals.

Methods: This is a comparative study done in a clinical setting over a period of 6 weeks. The study population consists of males aged between 18 to 30 who were arranged into two groups of 16 each; test group consisting of normotensive overweight individuals and control group consisting of normotensive normal-weight individuals. After explaining the study protocol and obtaining informed consent; the subjects were subjected to CPT (5 degree Celsius for 1 min till Wrist Joint). The heart rate and Blood pressure changes in control and test groups were recorded in the pre-task, task and post-task period. The data collected was subjected to statistical analysis for significance within and between two groups.

Results: The difference between the pre-task and the task for Systolic BP (SBP), diastolic BP (DBP) and heart rate (HR) in the overweight subjects were 19.33mmHg, 13.64mmHg and 5.10bpm respectively with $p<0.001$ in each of the cases. The difference between the pre-task and the task for SBP, DBP and HR in the normal-weight subjects were 14.54mmHg ($p<0.001$), 5.61mmHg ($p=0.005$) and 6.27bpm ($p<0.001$) respectively. The mean differences of SBP, DBP and the HR between overweight and normal weights were 4.79mmHg ($p=0.003$), 8.03mmHg ($p<0.001$) and -1.18bpm ($p=0.246$) respectively.

Conclusion: The overweight subjects showed significant rise in SBP and DBP compared to normal-weight subjects. This proves that former may have a greater susceptibility to develop hypertension in the future.

Autonomic reactivity to stressful stimuli in prehypertensive and hypertensive individuals

V Lavanya

Introduction: To assess the autonomic reactivity in prehypertensive and hypertensive individuals and to compare the autonomic reactivity between them.

Methods: It is a cross sectional observational study done in a tertiary care hospital for two months in prehypertensive(n=25) and hypertensive(n=25)of both sex in the age group of 25 to 60 years. Resting heart rate,heart rate response to supine to standing(30:15 ratio)and Deep breathing difference (E:I Ratio)was done to assess parasympathetic activity and blood pressure response to supine to standing,cold pressor test to assess the sympathetic activity.

Results: Basal heart rate and cold pressor test showed significance in both the groups($p<0.005$).

Conclusion: From the study there is not only sympathetic overactivity involved in prehypertensive and hypertensive individuals but there is also parasympathetic involvement.

Assessment of long-term quality-of-life (QOL) outcomes in disease-free breast cancer survivors

Sukriti Rastogi, Chintamani, Megha Tondon, Rohan khandelwal

Introduction: Breast cancer is the most prevalent malignancy amongst women in India. Increasing use of multimodality approach has led to an increase in the number of long term breast cancer survivors. To determine the long term effects of breast cancer and to evaluate the complete outcome of cancer treatment, it is essential to assess quality of life (QOL) of the survivors.

Methods: A follow up study in a cohort of 27 breast cancer survivors, managed by the same oncological team at Safdarjung Hospital. A 34 item, subjective questionnaire (Cronbach's alpha coefficient=0.89, Spearman correlation coefficient=0.92) was used to assess QOL in four domains: physical, psychological, social and spiritual. Socio-demographic and clinical data included age, education, marital status, disease stage, family history, parity and other co-morbid conditions.

Results: The mean age at presentation was 51.5. Physical and social functioning was excellent. Easy fatigueability and pain severely affected 15% of the survivors. The most frequently mentioned complaint was of painful/swollen arm. More than 30% suffered significant changes in their sleep & appetite pattern. Menopausal symptoms were present in more than half of the survivors. 33% of all, faced difficulty in concentrating and memorizing. Majority of survivors were emotionally stable. 80% were having an active social life. Severe depression was profound in 10% of all the cases. Spiritually & religiously inclined survivors showed better QOL. Almost all the survivors with good QOL had strong support from family & friends. Also, 94 % of physically healthy survivors had socially active life indicating strong co-relation between physical health & social life.

Conclusion: During the follow up, it was found that majority of the survivors were leading a good quality of life. The fact that social support was a predictor of a better QOL indicates that interventions aimed at increasing such support may have additional long-term benefits. The QOL study in breast cancer survivors will also have positive influence on women who are newly diagnosed with breast cancer, on survivors & health care providers.

Practices and associated factors of smoking in male undergraduates of the Faculty of Science, University of Colombo, Sri Lanka

M Hiflan Nizam, IMMS Ihagama, IRHS Ihalagama

Introduction: Smoking is a global health hazard. Assessing the smoking practices of University male undergraduates is of importance to identify the impact of smoking in that population, which represents the future educated workforce of the country.

Methods: A cross sectional study was conducted in a randomly selected 160 male undergraduates of the faculty of science, University of Colombo. Data of practices and associated factors of smoking were collected using a self-administered questionnaire. Data were analyzed using statistical software and $p<0.05$ was considered significant.

Results: Out of 160 respondents 35.83% smoked at least once in their life time and 18.33% were currently smoking. The mean age of starting smoking was 17.47 years. Higher percentage of current

smokers (10.17%) were from higher income group (>Rs.50,000). The main reason to start smoking was peer pressure (23.83%) and main reason to continue smoking was that smoking was pleasurable and relaxing (18.33%). 89.47% of undergraduates smoked at outside their home environment. highest was at university (36.84%) and next at hostels (31.58%). The association between the prevalence of smoking in undergraduates and their fathers smoking habit was not statistically significant (p>0.05) but the prevalence of smoking among siblings was highly significant (p<0.001). 95.45% of current smokers were having intact families. The influence of parental education on the prevalence of smoking in undergraduates was not significant (p> 0.05). There was a direct association with smoking in students who consumes alcohol at least monthly compared to students who consumes alcohol occasionally (p=0.01).

Conclusion: The prevalence of undergraduate smoking is high in our study sample. Onset of smoking was due to peer pressure prior to entering university. Risk factors include: high income family background and sibling's smoking. Parental education and smoking, residence and family status has no significant effect. The majority of current smokers also consumed alcohol.

The independent effects of poly cystic ovarian synome on thyroid hormone and follicle stimulating hormone
A Lakshmi

Introduction: To correlate the hormonal status of the patients with a history of secondary amenorrhea for evaluation of PCOS with their thyroid profile.

Methods: A cross sectional study of the patients attending OPD for the evaluation of PCOS was done. Female patients in the age group of 17 to 40 were included in this study. Blood samples were drawn and estimated for LH, FSH,Prolactin,Free T3, Free T4,TSH.

Results: Fifty percent of the patients were in the age group of 17 to 25 years and 50% were in the age group of 26 to 40 years. In group I, 60% of patients had altered gynaecological hormone profile and in groupII, 53% of patients had altered gynaecological hormone profile. The correlation between gynaecological index (LH, FSH and prolactin) and thyroid profile (T3,T4 and TSH)was studied. It was found that there was a significant correlation between FSH and TSH (r=0.809 p< 0.001).

Conclusion: When the PCOD is dignosed in the patients of mean age of 20.8yrs, the gynaecological index is abnormal with normal thyroid profile whereas in the mean age of the 33.5yrs, both gynaecological index & the thyroid profile were abnormal. So, while assessing a case of PCOS in a patient of mean age group 33yrs, both gynaecological index and thyroid profile should be evaluvated.Hence while assesssing a case of PCOS in a patient of higher age group both gynaecological index and thyroid profile has to be considered.

Correlation of Ki-67 labeling index with grade and stage of transitional cell carcinoma bladder
Ravinder Anjna

Introduction: The global burden of yearly occurrence of new cases of TCC (Transitional Cell Carcinoma) bladder has gone up by 55% in 15 years. Incidence rates in India, vary from 2.6 to 4.8 per 100,000 in urban areas. The important prognostic factor in urothelial carcinoma is pathological stage and the grade of tumour. Sometimes

it is difficult to accurately stage/grade and prognosticate the TCC when only small cystoscopic biopsies are sent to the laboratory. Early dysplasias of urothelium are likely to be missed in case only conventional histomorphology is used. To address this issue, the proliferation rate of tumour using Ki-67 labeling index (LI) has been evaluated in this study

Methods: 30 cases of bladder tumours comprising of 3 papilloma, 4 PunLMP (papilloma with undetermined low malignant potential), 19 low grade and 4 high grade carcinomas were studied. The histopathology of these cases was analyzed with 2009 TNM staging and 2004 WHO/ISUP grading system. The sections of the tumour were subjected to MIB-1 monoclonal antibody immunohistochemistry. The tumours were divided into 2 groups (<10% of tumour nuclei staining with MIB-1 and > 10%)

Results: Of the 23 cases of TCC, 15 were in Stage T1, 4 in T2, 3 in T3 and 1 case in T4 stage. There was a significant level of correlation of Ki-67 labeling index with stage (0.01103896) and grade of tumour (0.00003808) using Fishers exact probability test

Conclusion: Our study has shown that the ki-67 MIB1 LI is associated with stage and grade of TCC. Thus, together with tumour size, ki-67 MIB1 LI might be useful for stratifying patients of bladder tumours into risk categories. It also adds to the objectivity in prognostication, reduces the interobserver variation and accurately predicts the tumour progression

Prediction model for low birth weight
Avantika Singh, Sugandha Arya, Harish Chellani

Introduction: Low Birth Weight plays an enormous role in neonatal mortality and morbidity as well as adolescent and adult morbidity. However, no prediction scale is available to predict the possibility of a LBW neonate in Indian scenario. This study was undertaken with the aims to assess the factors associated with LBW and formulate a scale to predict the probability of having a LBW infant.

Methods: For this case control study, cases were defined as all live neonates weighing < 2500g at birth and controls as those ≥ 2500g. Maternal and neonatal data for various risk factors was collected by personal interview (structured questionnaire) and from hospital records. Data gathered for 200 cases and 200 controls were used to study risk factors and build a prediction model. Validation of the model was done on 100 neonates.

Results: Mean weight of cases was 1.99±.41 kg vs. controls 3.03±.39 kg. 39.6% of the cases were preterm and 63.2% SGA. Factors significantly associated with LBW by multivariate analysis were: weight gained by mother during pregnancy <8.9 kg(OR, 6.1 [95%CI, 1.3 -27.8]; P=0.02), inadequate proteins in diet (<47 g/day) (OR,6.1 [95%CI, 1.2 -36.1]; P=0.04), female sex of baby (OR,4.2 [95%CI, 1.1 -16.4]; P=0.04), anaemic mother(Hb<11.0g/dL)(OR,20.0 [95%CI, 1.6 -246.5]; P=0.02), passive smoking (by father)(more than 5 cig/bidi per week)(OR,5.6 [95%CI, 1.1 -29.4]; P=0.04), previous preterm baby (OR,6.9 [95%CI, 1.4 -33.8]; P=0.02) and previous LBW baby(OR,6.2 [95%CI, 1.7 -23.3]; P=0.01). On univariate analysis: primigravida, pre-pregnancy BMI<20.621, mother's height<1.53 metre, ANC visits <4, pre-pregnancy weight<45 kg, inadequate spacing(<24 months) and inadequate calories in diet (<1667.1 kcal/day) were also found significant. Using above data, a 6-factor prediction model was formulated (sensitivity 71.58% & specificity 66.98%). Validation of the model revealed a sensitivity of 72.0% & specificity 64%.

Conclusion: A simplified scale has been developed and validated as

a prediction model for LBW.

Laparoscopic surgery videos as a 'visual aid' to improve learning of anatomy: a prospective controlled study

Krishna Adit Agarwal, Nayan Agarwal, Brij B Agarwal

Introduction: Approaches to teaching correlate with quality of learning. Knowledge of anatomy, a foundation for practice of medicine, can improve by visualization. Dissection on dwindling 'available cadaver' population fails to achieve this in totality. Easily available laparoscopic surgery videos can be useful as visual teaching aids. Aim of teaching anatomy is to produce competent physicians. Today's generation is multimedia-savvy. Practice of medicine is also evolving with integration of multimedia technologies. Hence multimedia tools can be incorporated in teaching and learning as well. This study was aimed to evaluate the utility of Laparoscopic Surgery videos in medical student's learning of anatomy. Aim of this study was to see if the learning of anatomy could be facilitated by laparoscopic surgery videos.

Methods: Prospective controlled study from August 2007 – July 2008. One hundred medical students were divided into study group and control group. Control group students underwent the existing system of dissection, didactic lectures and tutorials. Study group students were shown edited videos of laparoscopic surgery by a teacher in addition to routine teaching. The division of students into two groups was along the routine practice of dividing an academic batch into two groups. The teacher incorporating the surgery videos utilized them for the study group only. The end points used were - Evaluation of students in the part completion test and Student's perception of the utility of videos. Student's perception of surgery videos as a learning tool was assessed on 4 point Likert Scale i.e. Excellent, Very Good, Good and Can't say. Five criteria for learning perception were used to measure the efficacy according to aforesaid Likert scale. These were – Improved memory, Help in revision, Improved drawings, Helpful in group discussion and Appeal for career selection. The data collected was collated in a Microsoft Excel sheet for analysis.

Results: Performance of the study group was better than the control group in theory as well as practical for the part covered by laparoscopic surgery videos. The results of the performance assessment were significant (p<0.01).Large majority (92%) of study group students thought laparoscopic surgery videos to be 'Very Good' additional learning tool.

Conclusion: Laparoscopic Surgery videos can be a good useful tool in medical student's learning of anatomy as shown by both acceptance and performance of medical students. This is pertinent in view of the dwindling cadaver population, reducing involvement of students in dissection, negative perception of cadaveric dissection and encouraging results of multimedia tools in learning. Laparoscopic surgery videos are a free resource as it is a discarded product of surgery. Hence they can easily be procured from operating room of the medical school and incorporated in the teaching of anatomy.

Micronutrient deficiency during third trimester of pregnancy and its effect on neonatal outcome

Sheuli Paul, Akila Prashant, Prashant Vishwanath, MN Suma

Introduction: Pregnancy is a period of increased metabolic demands, with changes in the women's physiology and of a growing fetus. Hence, during pregnancy adequate intake of vitamins and minerals are recommended to prevent the adverse effects on the mother and the fetus. Micronutrient deficiency, whether clinical or sub-clinical, may have adverse effects both on the mother and the foetus. In our study we aim to study the levels of micronutrients like iron, zinc and copper and to assess the neonatal outcome in those pregnant women who exhibited these deficiencies.

Methods: Fifty pregnant women aged 20-30 years after 28 weeks of gestation on regular antenatal checkup were included. Collected venous blood samples were used for the estimation of hemoglobin, serum zinc, copper and ferritin. They were followed up till their delivery and the neonatal outcome was noted. The Gestational age, weight of the baby, length and head circumference, any complications during and after delivery was noted in the proforma.

Results: Serum ferritin levels did not significantly correlate with other study parameters. Zinc levels decreased with increase in parity. Copper level decreased with increase in BMI. With an increase in hemoglobin there was an increase in the levels of zinc and ferritin. With increase in parity there was decrease in neonatal birth weight. Surprisingly, vegetarians showed a better hemoglobin levels.

Conclusion: Our study clearly brings out a relation between microminerals such as iron, zinc and copper during late pregnancy. An improvement in iron status brings a positive effect on ferritin and zinc levels thus indicating a better outcome from pregnancy.

Serum uric acid as marker of endothelial dysfunction in type 2 diabetes mellitus and its correlation with nitric oxide and insulin levels

KT Mimethashree

Introduction: Diabetes mellitus is one of the risk factors of cardiovascular diseases, coronary artery diseases and dyslipedimia. The basic pathophysiology in these conditions are endothelial dysfunction, which also occurs when the conditions which decrease or increase nitric oxide come to play in a milieu of oxidative stress.This decrease or increase in Nitric oxide levels leads to vasoconstriction which accounts for a vicious cycle of decreasing insulin sensitivity. Assessment of the amount of endothelial dysfunction can be used to estimate the severity of the insulin resistance in diabetes. The best parameter representing the functional integrity of endothelium would be Nitric oxide, whose assay poses certain bottlenecks. So, another equivalent marker, Uric acid, whose estimation is simple and practically feasible could be used. Aim of the study is to estimate uric acid, Nitric oxide and insulin levels in type2 DM and controls and correlate their values to evaluate their usefulness as markers of endothelial dysfunction.

Methods: Case control study conducted in hospital setting by random sampling during June to August 2012 with a study population of 90 individuals consisting of 30 diabetic cases <5 years duration and 30 diabetic cases >5 years duration and 30 controls.Special investigations are Fasting blood glucose, Uric acid, Insulin, Nitric oxide.

Results: NO and insulin levels though not statistically significant between cases and controls, to a certain extent becomes clinically significant.WhenUric acid as a marker of endothelial dysfunction was assessed at a cut off of nitric oxide levels of 8.08 micromoles per litre,the levels of uric acid that predict endothelial dysfunction is 4.195.

Conclusion: Serum uric acid can be used both as a marker of endothelial dysfunction in type 2 DM, and as a prognostic marker for its micro and macrovascular complications.Uric acid assay can be used as a cheaper substitute to the costly and cumbersome assays of NO and insulin.

Body dissatisfaction among students of a college in Delhi and their internet usage: is there an association?

Shobhana Sridhar, Rahul Sharma

Introduction: The prevalence of internet usage is increasing amongst college students as shown by various studies. Body (dis) satisfaction is also becoming a burgeoning issue amongst this young age group. The study objective was to study the self-reported body dissatisfaction among college students and its association, if any, with their internet usage.

Methods: A cross-sectional study carried out in a randomly selected general college of University of Delhi. The participants were 150 students belonging to the college. The tools included Body Shape Questionnaire (BSQ) short form and a pre-tested questionnaire for assessing internet use and demographic characteristics. Statistical analysis involved proportions and chi square test.

Results: A total of 126 valid filled questionnaires were obtained from the students including 50 (39.7%) males and 76 (60.3%) females. The age of the respondents ranged from 17-22 years and majority were day-scholars (81.7%). Body dissatisfaction did not have any significant association with age, gender, hostel status and family income. A 'U-shaped' association of body dissatisfaction with BMI was observed. It was least among those with normal BMI and high among those both with BMI<18, and BMI>23. Body dissatisfaction was higher among daily net users (29.7%) than those not using the internet daily (19.2%) (p>0.05). There were significant associations of body dissatisfaction with high numbers of net friends (p<0.05) and facebook friends (p<0.05) but not with number of real-life friends (p>0.05). Body dissatisfaction scores were also higher among those accessing facebook daily (p<0.05).

Conclusion: Body dissatisfaction was found to have an association with BMI. There were statistically significant associations observed with high internet use, especially of facebook. This needs to be explored in further large-scale studies.

Paraoxonase 1 levels in dialysis patients, a study done in a sect of urban Chennai population

Madhusudan Vijayan

Introduction: Chronic kidney disease(CKD) is a proatherogenic state. It is well documented that the most common cause of mortality in CKD patients is Cardiovascular disease(CVD) . The proatherogenic state is due to an alteration in lipid profile occuring in an inflammatory background. There is a qualitative shift of lipoprotein profile towards atherogenicity, rather than a quantitative shift. Thus overall Low density lipoprotein(LDL),High Density Lipoprotein(HDL) and Total Cholesterol levels alone are not useful predictors of atherogenic risk. Paraoxonase 1(PON1) is a HDL associated enzyme which carries out most of the antioxidative functions of HDL including prevention of LDL oxidation, and can be a useful predictor. This study aims to compare PON1 levels in dialysis patients, CVD patients and controls.

Methods: In our case-control study, 50 CKD patients were age and sex matched with 50 cardiovascular disease patients and 50 apparently healthy controls. Fasting venous blood sample was taken, and lipid profile was estimated. PON1 activity was estimated spectrophotometrically using Paraoxon(0,0-diethyl-0,4-nitro phenyl phosphate) as the substrate for hydrolysis.

Results: Total cholesterol levels were lower in CKD than in CVD and controls,which were significant. (166.42,210.48,192.98mg/dl respectively, p=0.001).The LDL levels were lower in CKD than in CVD and controls,which were significant(94.45,118.15,114.15mg/dl respectively,p=0.037). The HDL levels were lower in CKD than in CVD and controls which were significant(42.87,59.60,49.74mg/dl,p<0.001). PON1 levels were found to be less in CKD than in CVD and controls, which were significant (79.70,93.44,123.40 IU/L respectively,p<0.001). PON1/ HDL ratio was lower in CKD and CVD than in control, and was significant (2.040,1.639,2.762 respectively,p<0.001).

Conclusion: Quantitative measurements of atherogenicity like total cholesterol and LDL levels failed to highlight the increased cardiovascular risk, which qualitative measurements like PON1 activity and PON1/ HDL ratio indicate. Hence PON1 and PON1/ HDL are better factors which can be used in the cardiovascular risk stratification of CKD patients.

Counseling as method to increase participation of undergraduate medical students in research

Rajat Choudhari, Harshita Nori, Shubhanker Mitra

Introduction: The interest and number of medical students doing research is negligible. There are many initiatives across the country to improve this situation. Some of the identified barriers preventing medical students from taking up research projects are; difficulty in framing a research question, lack of motivation and insufficient guidance. We hypothesized that counseling the interested students could result in a higher proportion of them eventually taking up research during their undergraduate course. In this project we tried to explore the feasibility and the impact of a counseling among first year medical students.

Methods: First we surveyed medical students to identify the proportion of them interested in research. We then, further invited the first clinical year students for a counseling session. The counseling was oriented towards introduction to concepts of research, how to go about selecting research topics and identifying the guides. The counseling aimed to convey that the students should select a focused research question with a suitable study design which can be completed in a stipulated time.

Results: The survey response rate was 86.4% (203/235), 27%(55/203) of which were first clinical year students. 56.6% (115/203) of the responders stated that they were interested in research, among them 6.9%(14/203) were first clinical year(1Y) students and the rest 49.7%(101/203)were from other batches (0Y). The 1Y students were given counseling; among them 78.6% (11/14) students eventually took up guided research projects. In comparison to this, only 8.9% (9/101) OY students who weren't given counseling took up research projects.

Conclusion: Counseling appeared to bring about a promising rise in the number of first year students engaging themselves in research projects. It could be adopted as a strategy to improve the participation of students in medical research.

Spectrum of opportunistic infections among Human Immunodeficiency Virus sero-positive patients in a tertiary care hospital

Isha Gambhir

Introduction: Opportunistic infections (OIs) continue to cause considerable morbidity and mortality in HIV infected individuals. We undertook a prospective cross-sectional study to document the spectrum of opportunistic infections in HIV seropositive patients and to correlate them with their CD4+ counts.

Methods: One hundred consecutive HIV seropositive patients were studied. Individuals with clinical suspicion of any opportunistic infection were subjected to further investigations. Diagnosis of co-infections and opportunistic infections were performed by examination of smears, cultures and serology following standard guidelines.

Results: Majority of the patients were in the age group of 18-49 years and 70% were males. A total of 96 OI events were reported from 59% of study subjects. Tuberculosis including Pulmonary TB, Extra-pulmonary TB and Disseminated TB was the most common OI observed followed by candidiasis (21%) and P. jiroveci pneumonia (11%). Various other OIs were reported in lesser frequencies. Co-infections with similar modes of transmission including Hepatitis B, Syphilis, Genital warts and Hepatitis C were found in 7.6%, 6.7%, 5% and 1.3% patients respectively. CD4+ testing was done in 47% of patients, majority of the patients tested (95.8%) had counts < 350 Cells/μL. OIs were seen in high frequency among all patients with CD4+ counts of <350 cells/μL.

Conclusion: This study showed the occurrence of various OIs among patients with HIV infection. Knowledge regarding the prevalence of various OIs might aid in making decisions regarding empirical treatment and would help to prioritize limited resources. It is important to understand the presentation of HIV disease in the local context.

Pulmonary tuberculosis in diabetes mellitus patients in a tertiary care hospital in south India-a case control study

Avinash Kumar

Introduction: Diabetes mellitus continues to be a risk factor for the development of tuberculosis in patients in India and worldwide. We undertook a prospective case-control study to document the frequency of tuberculosis in diabetes mellitus patients.

Methods: It was a case control study done in a time period of 2 months with 100 cases and 100 controls. Cases were the patients having diabetes mellitus with respiratory symptoms and controls were free from diabetes mellitus but had respiratory symptoms. All the patients in both the groups were screened for pulmonary tuberculosis by sputum smear microscopy on ziehl neelsen's medium and confirmed by culture on Lowenstein-Jensen's medium. Demographic variables including age, sex and other factors like type (1 or 2) and duration of diabetes mellitus, any other associated complications were analysed for the development of tuberculosis

Results: Majority of the patients (51%) were in the age group of 61-70 years and 77% were males. Among 100 cases, 94 were having type 2 DM and 6 were having type 1 DM. Among cases 13% of the patients were diagnosed with tuberculosis and among controls 6% of the patients were diagnosed with tuberculosis. Among the cases, of

the thirteen patients with Pulmonary Tuberculosis, ten (77%) were males and three (23%) were females, eight patients (61.5%) were in the age group of 61-70 years. All thirteen patients had type-2 Diabetes mellitus .All thirteen patients had uncontrolled Diabetes mellitus status. 62% were having diabetes mellitus since more than 10 years. Hypertension was associated with 77% cases.

Conclusion: This study showed the increased occurrence of tuberculosis among DM patients as compared to non DM patients. Hence it is necessary for all diabetic patients with respiratory symptoms to undergo microbiological screening for pulmonary tuberculosis to avoid further complications.

KAB of adolescent girls on menstruation and menstrual hygiene in urban area

Madhuri Batyala, Kolli Karuna Murthy, Bhaskari Kolli

Introduction: In India, menstruation and menstrual practices are clouded by taboos and socio-cultural restrictions. Traditionally in India, it appears that there are some strategies: use of old cloth as pads by washing them, and endangering menstrual hygiene with long term implications for reproductive health. The aim is to study the knowledge, attitude and behavior of adolescent girls towards menstruation and to promote hygienic practices among them.

Methods: It is a randomly selected school based cross sectional study of 100 adolescent girls from an urban area. The approval of the College Ethical Committee is will be submitted soon. A pre-structured and pretested questionnaire was used. The girls were questioned about their knowledge on menstruation, type of sanitary pads they are using, their disposal and any dietary and behavioral changes. At the end of the study an awareness programme was conducted to the study group. Data was statistically analyzed using chi-square test in SPSS v16.0.

Results: The mean age of attaining menarche was 12.29 with S.D 1.05. Out of the 100 participants, only 6% of the girls knew about the pubertal changes while 65% of them only partially know. 83% of them consider menstruation as normal and only 37% of them knew about it before attaining menarche. The source of information being the mother (72.97%). Only 83% of the girls used sanitary pads while others still preferred using cloth/cotton etc. 94% of them followed safe disposal methods. Many restrictions were imposed on the girls during menstrual period.

Conclusion: The study shows that the urban adolescents need to be educated stupendously regarding menstruation and its hygiene. In spite of the special emphasis on adolescent care the attitude and behaviour has not changed to the expected level.

Variation in hematological parameters in burn injuries

K Kiran Chana, AR Raghupathi, M Natarajan

Introduction: In a patient with severe burns, there would be significant variation in the haematological parameters and also in coagulation factors, due to widespread damage to the coagulatory and fibrinolytic system. This study was aimed to determine the hematological changes occurring in severely burned patients in the first week post-burn and to observe for persistence of abnormalities in these parameters. A comparison of the blood profile between survivors and non-survivors was also made. Correlation of these factors with complications can help in early identification,

appropriate management and improved clinical outcome.

Methods: 35 patients, with thermal burns involving body surface area more than 20%, admitted to the Department of Plastic Surgery, Victoria Hospital, during a period of 2 months, were observed. Blood samples were collected from them post burn on 1st, 3rd and 7th day in survivors and till day of survival in others. Routine hematological tests including Hemoglobin Estimation, Total Erythrocyte Count, Total Leukocyte Count, Platelet count and tests for Coagulation Parameters (PT, INR and APTT) were performed. The individual mean of each of these values in patients who survived (15 patients) was statistically compared with that of patients who died (20 patients).

Results: It was seen that the initial polycythemia was followed by anemia in all patients, highlighting the need to monitor the Hemoglobin percentage. A significant leukocytosis observed in all the patients was not related to sepsis. The platelet count showed an increase in number in survivors post-burn, while a decline was observed in the non-survivors. The coagulation parameters however, showed no significant deviation from the normal. Hence, it was concluded that platelet count monitoring has to be done more frequently and any fall in the levels are of immediate concern.

Conclusion: The results of this study signify the importance of regularly monitoring the Hematological parameters, especially, Platelet Count and Haemoglobin Estimation to effectively manage and treat burn patients. The parameters considered were a part of routine patient work-up and follow up, enabling the study to be applied in every primary health care.

Quality of life of patients after temporary ileostomy for ileal perforation- a questionnaire based study

Rahul Gaba, Pradeep Saini, Arun Gupta, Navneet Kaur, Nitin Agarwal, MS Faridi

Introduction: Quality of life (QoL) of the patients after a temporary ileostomy for ileal perforation is affected by several perceptions and concerns, stoma related complications adds on to this stress. QoL issues and factors affecting satisfaction in these patients have not been addressed. Study aimed at assessing the stoma related complications and quality of life issues.

Methods: This is a non interventional, cross sectional, personal interview based study at a tertiary care hospital. Forty (40) consecutive patients following up in OPD were interviewed with the help of validated questionnaire having three parts related to demographic details; stoma morbidity and quality of life. Analysis was done with the help of chi square, one way ANOVA and unpaired t test.

Results: 29 males and 11 females, between 16 to 60 years participated. Females scored less than males in all important outcomes. Most common complications seen were excoriation/dermatitis (90%) and Flatus & odour (57.5%). Mean general QoL, stoma related QoL, role physical, role emotional and body pain dimensions score were 48, 52, 19, 22 & 40(all out of 100) respectively. Significant associations between general QoL, stoma related QoL, physical health and mental health with duration of stoma at the time of interview were found. Stoma related QoL also was significantly associated with general QoL, physical health, and mental health.

Conclusion: Below average general QoL score indicates an in general dissatisfaction with quality of life; patients with below average general QoL had a significantly poor stoma QoL. Patients

thought they could do physical activities but were actually not doing it as reflected from the good physical function scores but poor role physical scores. Role emotional, role physical and body pain were the most limited domains of patients' lives. This highlights the need for dedicated stoma care personnel and counselors, to reduce stress levels, alleviate concerns and clear misconceptions.

Behind the prostate, lies the hand: exploring novelties

Anew Lourdunathan, Helena Ann Titus, Sonu Yeldose, Edmond Fernandes

Introduction: Research is to see what everyone has seen and think what no one has thought. The ratio of the lengths of index and ring fingers (2D : 4D) is a marker of prenatal exposure to sex hormones, with low 2D : 4D being indicative of high prenatal androgen action. Recent studies have reported a strong association between 2D : 4D and risk of prostate cancer. We intended to explore if there are hands patterns which play a significant role towards prostate cancer-the most common cancer in the geriatric age group.

Methods: The study has been conducted in the coastal belt of the west coast of India, location; Mangalore. The mean of the right index and ring finger length was subjected to appropriate statistical analysis, with the geriatric age group in consideration.

Results: The mean ratio of the index finger (2D) to Ring Finger (4D) in the right hand of patients suffering from prostatic lesion was 10.03 to 10.48 (cms) respectively.

Conclusion: The mean of ring finger being taller than index finger in patients with prostatic lesion allows us to infer that, there could be a possibility of exploring the digits length which will invariably add to the etiological factors of research and a need for a larger multi centric study may concretize the etiological realization and necessary education & prevention can be met in an Indian context.

Metabolic synome in menopausal women in urban population of south India

Aarthi Subramanian

Introduction: Menopause has a natural predisposition to insulin resistance and thereby to Metabolic Syndrome due to the loss of the beneficial effects of Estrogen. The aim of the study is to assess the Metabolic Syndrome by ATP III and IDF criteria in the study groups and correlate it with the estrogen deficient state. The incidence of the syndrome is also compared between the groups. Sub-clinical inflammation attributed by the syndrome is correlated with hsCRP levels

Methods: Case-control study .45 menopausal women and 45 women of reproductive age group were classified according to ATP III and IDF criteria for metabolic syndrome.They were selected from hospital based setting.The study period was from April to June 2012. The patients were randomly selected from those attending the out patient department.FSH and LH were Assessed by ELISA method.

Results: Metabolic syndrome as per IDF & ATP III criteria in cases was 62.2% & 62.2%, & 55.6% & 48.9% in controls respectively.. By logistic regression analysis, FSH served as an independent risk factor for metabolic syndrome (p=0.032, CI=0.904-0.996) with a cut-off value of 24.7mIU/ml. hsCRP levels predicted risk at 3.035mg/l. Age at menopause was a predictor of risk for metabolic syndrome as per IDF criteria only.

Conclusion: There was no significant association of metabolic syndrome with menopausal status due to the estrogen deficient state caused by activation of PPAR-γ in obese reproductive women which mediates down-regulation of FSH stimulated aromatase & estradiol in human granulosa cells.FSH served as an independent predictor of risk at a cut-off of 24.7 mIU/ml indirectly implying the lack of estrogen conferring vulnerability to the syndrome.

Obesity and calcium metabolism in south Indian urban population
Venkatachalam Veerappan

Introduction: Over expression of agouti gene in obesity leads to increased intracellular calcium (Ca)i via calcitriol dependent membrane vitamin D receptor (mVDR) which activates fatty acid synthase promoting lipogenesis. Dysregulation of intracellular calcium flux/signaling is a key factor in hypertension, insulin resistance and obesity.In this case-control study it was proposed to study the association of obesity and calcium metabolism.

Methods: Case-control study.31 cases with BMI>/= 25 with no co-morbidities, 29 obese cases with co-morbidities and controls 27 normal individuals with a BMI <25 were included (Total = 87).They were taken from hospital based setting who were randomly selected from those attending the out patient department.The study period was from April to June 2012.Parathyroid hormone and Vitamin D were assessed by ELISA Method.

Results: Ca levels showed statistically least significance between controls & obese with co-morbidities (p=0.049).25(OH) vitamin D levels were significant between controls and obese without co-morbidities (p=0.034).Levels of PTH (p=0.667) were not statistically significant between the 3 groups. Ca negatively correlated with PTH (r=-0.317, p=0.003) & vit D negatively correlated with WC(r=-0.286, p=0.008) and BMI(r=-0.217, p=0.043). PTH was an independent predictor of calcium by multiple logistic regression (p=0.005)

Conclusion: The association of hypocalcemia in obesity was not demonstrated in the current study population. The calcium levels in the control group being in the low normal range and 25(OH) vitamin D and PTH being within normal limits along with hypermagnesemia directs the cause of lower Ca2+ levels probably to a genetic polymorphism of either 1-alpha hydroxylase activity or to 1,25 (OH)2 vitamin D3

Role of undergraduate medical students in the field of pediatric hemato-oncology in a developing country
Narayanan Balakrishnan, Julius Xavier Scott James Martin, Adanma Anji, Vivek Jeyakumar, Guhan Ramamurthy, Haree Shankar Meghanathan

Introduction: Developed countries have demonstrated a remission rate of almost 60 to 70% in children with cancer. In developing countires, the remission rate has been significantly lower, due to lack of social support and hence Medhope foundation was started in Sri Ramachandra Medical University by the Medical undergraduate students to support the children with cancer and the families under the guidance of a pediatric hemato oncologist.

Methods: The objective of the foundation was to support the families of children with cancer, to increase awareness about childhood cancer and also encourage more medical students to

research and pursue a career Pediatric Hemato Oncology.

Results: Medhope has succeeded in creating a unique blood bank reserve for Pediatric Hemato Oncology Patients. This reserve has has helped over 80 children in the span of a year. Medhope conducted the first Undergraduate Pediatric Hemato Oncology conference HOPE 2011 was attended by over 500 medical students from across the country. A questionnaire based study conducted among the delegates, before and after the conference demonstrated a significant increase in interest in Pediatric Hemato Oncology. Medhope has published a magazine 'Esperanza' which comprises of scientific articles and experiences of the cancer children and their families thereby raising awareness about pediatric hemato oncology. Medhope has also organized 'Play dates' where medical students have spent time with cancer children. Medhope has arranged medical camps to create awareness and has helped in early detection of childhood cancer.

Conclusion: The foundation which was started by the interns of Sri Ramachandra University,under the guidance of a pediatric hemato oncologist is a support system for children with cancer and has also increased the interest of undergraduate medical students for pediatric hematology and oncology.This will be a model for improving the status of pediatric oncology in developing countries.

Correlation between transcutaneous bilirubin at multiple sites and serum bilirubin in neonatal hyperbilirubinemia
Ajay M, Savitha MR

Introduction: Transcutaneous bilirubin(TCB) is a safe, simple, cost effective, non-invasive modality in the screening of jaundiced neonates. However, TCB values vary at different sites.To study correlation between transcutaneous bilirubin at multiple sites and serum bilirubin in jaundiced neonates

Methods: Present cross-sectional study included 149 neonates developing jaundice within 2 weeks of life. Transcutaneous bilirubinometer(model MBJ 20) was used to record TCB at following sites-forehead, sternum, upper thigh and sole(near heel). Corresponding serum bilirubin(SBR) level was obtained within 30mins of TCB reading.

Results: Of 149 neonates, there were 81 males, 68 females, 128 term, 21 preterm neonates and 42 LBW, 10 VLBW neonates. Majority (58.3%) were between 4-6 days of life. Though all the sites correlated with SBR, forehead (FH) TCB best predicted SBR in both preterm and term neonates. Between FH and SBR, correlation coefficient was 0.342 indicating a positive and significant correlation (p=0.000). We also found maximum agreement of 90.7% at 5mg/dl to 15mg/dl range. The sensitivity of FH TCB was 82.9%, specificity 68.9%, Positive predictive value 90.6% and negative predictive value was 52.38%.

Conclusion: Forehead is the most ideal site for TCB measurement. The maximum agreement between FH TCB and SBR was in the 5mg/dl to 15 mg/dl range

The relation of malarial onset with health facilities in Katpady
Somanshi Sehgal

Introduction: Malaria is on the endemic diseases of Karnataka.

Annually 3000 people of Karnataka suffer from malaria annually. Unlike the morbidity, the disease is preventable with the use of basic sanitary facilities at the community level. This project aims to find out the extent of malarial morbidity and develop a relation between the current statistical data to actual local knowledge about the disease and the availability of proper sanitary conditions of the village.

Methods: This cross sectional study was conducted in village Katpady, Udupi district of coastal Karnataka which is an endemic area for malaria. The study was done among 140 head-of-families from different households in a time period of 1.5 months. All types of houses were surveyed regarding the history and knowledge of malaria and a corresponding questionnaire was filled. The results were evaluated.

Results: The study revealed that the incidence of malaria in Katpady is 25%. Even after such a high incidence one-third people were not aware of the modes of spread and preventive measures for malaria. 8.5% of the households even after such a literacy rate believed in indiscriminate dumping. There is improper drainage supply and disposal of waste. The condition gets worse in monsoon. Malaria is an endemic disease of the area but still only 7% of the people had complaints regarding its occurrence.

Conclusion: Even after such a high literacy rate, the incidence of malaria in Katpady remains high due to lack of enthusiasm shown by the residents in keeping the area clean and also due to the lack of good sanitary facilities provided by the government. Thus there is a need for active participation by residents to keep their area clean. Thus a proposal for the same was kept in front of the Panchayat at the village meeting and information was spread in print and speech

Evaluation of automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and Rifampin resistance

Abhijith K Anil, Ashwini Agarwal

Introduction: Laboratory techniques of using direct microscopy for the diagnosis of tuberculosis by detecting acid fast bacilli lacked sensitivity and specificity. Culture, in spite of being the gold standard for tuberculosis detection has a high turn around period which varies from 2 weeks to 3 months. It also requires stringent bio-safety norms and careful handling. Xpert assay tested in our study uses automated system of bacterial lysis, DNA extraction, real-time PCR amplification, and amplicon detection for diagnosis of tuberculosis and detection of Rifampin resistance. In this study we evaluated the performance of the Xpert assay by drawing a comparison with the results obtained by direct microscopy, culture and drug susceptibility testing.

Methods: This study was conducted in a pulmonary tertiary care hospital. Hundred patients with symptoms suggestive of pulmonary or extra-pulmonary tuberculosis were enrolled for the study at the point of presentation to the consulting physician. Patients included both new cases and those who have undergone previous treatment. Samples taken were evaluated using smear test, culture and Xpert assay. The performance of the Xpert assay was then compared with those of culture and smear test. Drug sensitivity test was further done on results positive for Rifampin resistance.

Results: Xpert assay was found to have high sensitivity, specificity and high rates of positive and negative predictability when compared with culture which is gold standard for diagnosis of tuberculosis. Its performance was also superior to that of smear test with both

pulmonary and extra-pulmonary samples. All the Rifampin resistant strains were correctly and rapidly identified and hundred percent concordances were seen with the results of drug sensitivity test.

Conclusion: From the study conducted it was found that Automated Real-Time Nucleic Acid Amplification Technology used in the Xpert assay is ideal for rapid detection of tuberculosis and Rifampin resistance aiding quick and correct therapy.

Correlation of foot bimalleolar angle with pirani score to assess the severity of congenital talipes equinovarus deformity

Pragya jain, Meenakshi Goel, Anil Mehtani, Anil Kumar Jain

Introduction: While treating clubfoot it is important to classify the severity of deformity and the outcome.The pirani score,Demeglio score,Catterrell and Harrold and Walker classifications are in vogue but are subjective in nature and have inter and intraobserver variation.We still need an objective evidence of improvement and deterioration of clubfoot deformity.The foot bimalleolar angle on a foot print in proposed as an objective evidence of severity of clubfoot and its correction.This study is undertaken to correlate anteromedial foot bimalleolar angle with pirani score.

Methods: 244 club feet of 137 children (mean age 5.8 months) attending CTEV clinic were included.All neurogenic clubfeet, relapsed cases and age of children more than one year were excluded.

The severity of deformity as per the pirani score was calculated and the feet were divided into group I, II, III each with (.5-2 pirani score) 154 feet; (2.5-4) 50 feet; (4.5-6) 40 feet respectively.The anteromedial angle between long axis of foot and bimalleolar line or foot bimalleolar angle (FBM) was calculated from podogram. The mean, range and SD of FBM angle for each group was made and multiple compression was done by Tubey HSD.

Results: The mean FBM angle for groups I was 79.20 with SD 5.13 (range 67-920). The mean FBM for group II was 68.40 with SD 3.83 (range 60-790) and in group III was 53.270 with SD 8.01 (range 42-690).The difference of mean of each group was statistically significant with adjacent group (p <01).

Conclusion: The FBM correlates well with severity of deformity as assessed by pirani score and correction achieved,thus podogram and FBM angle became objective and cost effective criteria to be included in assessment and treatment of CTEV.

Cross-sectional retrospective study of psychosocial impact related to physiological changes of menarche among adolescent girls in south India

Sindu T, Bharatwaj RS

Introduction: The bodily changes associated with puberty and menarche affect a girl's psychological and social health. Very few studies have been done on this topic in India. So this study attempts to find out the psychosocial impact of menarche,among school going adolescent girls in, urban south India.

Methods: Following ethical approval, as an ICMR STS project, a cross-sectional study, among 101 randomly chosen adolescent girls by simple random sampling amongst the 150 girl students, who have already attained menarche of an urban co-education school in

Villupuram, and those who were willing to participate and have got informed consent from their parents for participating in the study, was undertaken .Information from the girls was collected using a pre-tested and validated questionnaire. The collected information was compiled and then analyzed for any significance of differences in proportions by Chi square and other appropriate tests using the statistical software SPSS 15.

Results: Majority of the girls 67(66.4%) did not have sufficient information about menarche to be previously prepared. For the majority of the girls 57(56.4%), mother was the primary source of information. Surprisingly mothers who were teachers were not found to be good source of primary information to their daughters. 16(15.8%). of the girls were unable to attend school due to discomfort and for 9(8.9%) it affected their studies. This has an overall negative impact on their psyche, feeling bad or restricted. The girls mostly have a negative stressful reaction when asked to think back of their menarche. On attaining menarche the kind of information the girls got from home, teachers and friends mainly centered on the issues related to personal hygiene, safety and social restrictions

Conclusion: Over all the Girls lack enough information prior to attaining menarche in order to be sufficiently prepared for it.

Seroprevalence Of HIV, HBV & HCV In 1000 blood donors at Dayanand Medical College & Hospital, Ludhiana

Harnoor Singh Bhardwaj

Introduction: Transfusion-transmissible infections(TTI) such as human immunodeficiency virus(HIV), hepatitis B virus(HBV) and hepatitis C virus(HCV) are among the greatest threats to blood safety for the recipient. This study aimed to determine the seroprevalence of these viral markers in relation to voluntary/replacement donation & number of donations in 1000 blood donors at Dayanand Medical College & Hospital, Ludhiana (DMCH).

Methods: Study was conducted on 1000 blood donors donating blood in Department of Immunohematology & Blood Transfusion, DMCH, Ludhiana and at outreach voluntary blood donation camps. Screening and selection of blood donors was done as per criteria for donor selection laid by Director General of Health Services, Ministry of Health, New Delhi. Serum of these blood units was screened by 3rd generation ELISA for these three viral markers. The results were interpreted as per the strategic guidelines provided by WHO. Chi Square test for trend analysis was done.

Results: Out of the 1000 donors tested 83.8% were replacement donors & 16.2% were voluntary donors. 95.3% were males and 4.7% were females with M:F ratio of 20.27:1. Mean age in the present study was 32.58 ± 10.24yrs. Maximum number of blood donors were in the age group of 21-30yrs in both voluntary, 51.85% and replacement group, 52.03% followed by 31-40yrs with voluntary donors as 25.6%, & replacement donors 25.42%.

Seropositivity was more in first time donors in both voluntary 1.85% and replacement 2.02% donors. Incidence of HIV was 0.2% & were only in replacement donors; HBsAg was 1.4%, more in replacement donors 1.43% vs 1.23% in voluntary group. In HCV the incidence was 1.2%, more in the replacement donors 1.31(11) vs 0.61(1) in voluntary donors.

Conclusion: Voluntary blood donation is more safe and advocated than replacement donation where higher incidence of TTI's was observed.

Learning styles and approaches to learning among medical undergraduates and postgraduates

L Samarakoon, T Fernando, C Roigo, S Rajapakse

Introduction: The challenge of imparting a large amount of knowledge within a limited time period in a way it is retained, remembered and effectively interpreted by a student is considerable. This has resulted in crucial changes in the field of medical education, with a shift from didactic teacher centered and subject based teaching to the use of interactive, problem based, student centered learning. This study tested the hypothesis that learning styles (visual, auditory, read/write and kinesthetic) and approaches to learning (deep, strategic and superficial) differ among first and final year undergraduate medical students, and postgraduates medical trainees.

Methods: We used self administered VARK and ASSIST questionnaires to assess the differences in learning styles and approaches to learning among medical undergraduates of the University of Colombo and postgraduate trainees of the Postgraduate Institute of Medicine, Colombo.

Results: A total of 147 participated:73 (49.7%) first year students,40 (27.2%) final year students and 34(23.1%) postgraduate students. The majority (69.9%) of first year students had multimodal learning styles. Among final year students, the majority (67.5%) had multimodal learning styles, and among postgraduates, the majority were unimodal (52.9%) learners.Among all three groups, the predominant approach to learning was strategic. Postgraduates had significant higher mean scores for deep and strategic approaches than first years or final years (p<0.05). Mean scores for the superficial approach did not differ significantly between groups.

Conclusion: The learning approach showed a positive shift towards deep and strategic learning in postgraduate students. However a similar shift was not observed in undergraduate students from first year to final year, suggesting that their curriculum has not influenced learning methodology over a five year period.

Determinants and outcome of Low Birth Weight (LBW) infants in a secondary care hospital: a retrospective cohort analysis

Mahjabeen Khan, Suma Nair, Dinesh Nayak

Introduction: Low birth weight (LBW) is one of the most serious challenges in maternal and child health in both developed and developing countries. Its public health significance may be ascribed to numerous factors such as its association with human wastage and suffering; high cost of medical care and socioeconomic under – development.This study was an attempt to identify the determinants and outcome of low birth weight infants over a period of three years in a secondary care hospital.

Methods: The medical records of all infants born in the year 2008 and fulfilling the prescribed inclusion criteria were reviewed and relevant information recorded using a data extraction sheet.The cohort was retrospectively followed up for a total duration of 3 years.Statistical analysis was done using SPSS version 16

Results: Of the total 800 neonates born in 2008, 105 had a recorded birth weight of less than 2500g (13% of all births).Of these two (1.9%) had very low birth weight (VLBW) and 102 neonates were recorded with a birth weight between 1500-2499 grams (LBW). Mean birth weights of boys and girls were 2290.82± 176.1 (Min= 1850,

Max=2497) and 2246.1± 272.1 (Min= 1070, Max=2490), respectively. Of the six neonates (5.7%) diagnosed with congenital anomaly, four were boys. Multiple gestation [RR=4.45 (95%CI 1.3, 14.8) p < 0.05] and preterm delivery [RR=7.14 (95%CI 1.6,30.0) p < 0.01] were significantly associated with LBW. All the infants had a favourable outcome in the immediate post natal phase.

Conclusion: Preterm delivery and multiple gestation were the two factors found to be significantly associated with LBW in this study. More boys than girls were in the low birth weight category and also observed to have congenital anomaly

Laboratory tests show reliable, accuracy of the results and interpretation of abnormal results
Ramya A, Azhalathithan T, Ayarin Glorida Stephen, Ravi Kiren BS

Introduction: Laboratory tests are used by clinical for diagnosis, monitoring and prognosis in patients with different diseases changes in test results occur as a result of the normal Aging process. To detect biochemical changes in the patients, the pre analytical and analytical variations must be reduced to acceptable levels at which they cause no impact as clinical interpretational of the results.

Methods: In this study were taken 25 male 20 female 20-38 years old, from staff of the central laboratory. The study was conducted at Sri Lakshminarayana Institute of Medical Sciences, Puducherry, Bharath University. Patients were enrolled in the study after obtaining written consent.To examine the differences in measurements according to the separating of sample collecting freezing temperature and freezing periods for Biochemical serum analysis.

Results: Our study shows UA, Triglycerides are increase at 23±1oc for 18 hrs but no change in4±10c, serum glucose decreased in both temperatures at 18 hrs. Increased PO4 concentration could be a cause of prolonged storage of serum at room temperature 23±1oc, but in 1±40c only slight changes were seen in the before 12 hrs.

Conclusion: Our study glucose, creatinine, posphorus should be processed with in 12 hrs is best. The remaining parameters evaluated were stable at 24 hrs at 23±1oc and 4±10c. But we have to check the remaining factors like instruments, relaliability of technical aspects. We hope our results will give you an idea to assess the Biochemical parameters in a time period and sample storage conditions.

Atypical thyroxine replacement in hypothyroidism-a clinical audit
Sukriti Bhutani

Introduction: Change in dosage timing and frequency of L-thyroxine administration may decrease the severity of "hypothyroid" symptoms and contribute to patient satisfaction. This clinical audit was planned to assess the patterns of L-thyroxine replacement in hypothyroid patients.

Methods: A pretested, structured questionnaire collecting information about age, gender, duration of disease, concomitant morbidity and therapy, patient concerns, and thyroid control was administered to 100 consecutive hypothyroid patients attending an endocrine clinic in Karnal, Haryana, North India. Analysis was carried out using the SPSS version 19.0.

Results: The mean age of patients was 42.14 ± 13.14 yr, with an average duration of hypothyroidism of 5.12 ± 6.87 yr. Thirty-two subjects were euthyroid (thyroid stimulating hormone (TSH) 0.35-5.00 mIU/l).Eleven subjects reported a TSH < 0.35 and 57 reported TSH ≥5.00 mIU/l. The commonest dose of L-thyroxine used was 100 mcg/day (n = 35), followed by 125 mcg/day (n = 20). The mean total daily dose was 101.17 ± 24.91 (range 50-150) mcg/day. The daily dose per body weight was 1.452 ± 0.38 (range 0.67-2.56) mcg/kg). Nine patients were on atypical regimes: five took their medication in divided daily doses, two took it at night, and two preferred a time "two hours after breakfast and two hours before lunch." They shifted from early morning administration of L-thyroxine because of uneasiness (n = 5/9), palpitation (n= 2/9), and increased hunger (n = 1/9) post-tablet ingestion. The symptoms subsided after the timing or frequency of L-thyroxine intake was changed.

Conclusion: Changing the time and/or frequency of L-thyroxine dosage helps in alleviating some of the distressful symptoms among the hypothyroid subjects.

A study to evaluate the prevalence of ophthalmic manifestations in patients with head injury
Alagammai O

Introduction: Over 50% of all trauma deaths and about 60% of vehicular trauma deaths are associated with head injuries. Head injuries causes hospitalization of 200-300 persons per 100,000 population per year, and 25% of these are associated with ocular involvement. The manifestations of head injury and its numerous other systemic complications are so compelling that damage to the visual system is most likely to be ignored. There are several studies of patients with head injuries in Rehabilitation units being referred for missed Neuro-ophthalmic findings. Often times, when the eye is examined as part of neurological assessment of a patient with head injury, the purpose is mainly to gauge the severity of the head injury itself. Thus, this study aims at recording the various ocular findings and neuro-ophthalmic signs in patients with head injury.

Methods: Type of study: Retrospective study. Study Population: Patients who had sustained a head injury. Study locale: PSG Hospitals. Sample Size: 63 patients. Sampling Method: Convenient method. Inclusion Criteria: Patients who had sustained a head injury. Duration of the study (in months): Two months. The hospital records of patients who had a diagnostic code of head injury were reviewed and the following data were collected and analysed. Patients name, age, sex. Mode of injury. Abnormalities in the visual system such as periorbital ecchymosis, subconjunctival hemorrhage, corneal abrasion, globe rupture, orbital fractures, ocular motor nerve palsy, optic nerve injury, papilloedema, pupillary abnormalities.

Results: Among the 63 patients with head injury, 60 (95.24%) were males. Head injuries were more common in the age group of 21-40 years (range 3-81). Among the causes, Road traffic accidents were the most common (87.30%), while fall from height accounted for 11.11% and assault contributed 1.59%. Out of the 63 patients, 24 (38.10%) had ocular involvement. Among the ophthalmic manifestations, Periorbital ecchymosis was the most frequently encountered sign (n=18, 75%) followed by Subconjunctival hemorrhage in 17 patients. Traumatic optic neuropathy was present in 9 patients, and all had ipsilateral relative afferent pupillary defect (37.5%). Hutchinson pupil was noticed in 1 patient. Among the Ocular motor nerve palsies, 4 patients had Oculomotor nerve palsy and 3 had Abducens nerve palsy. Damage to the ocular cranial nerves occurred in 15 (62.5%) patients out of the 24 patients. 9 (37.5%) patients had only soft tissue injuries.

Conclusion: Detailed early ophthalmic assessment can serve as an important adjunct to imaging studies in overall clinical assessment of patients of head trauma. In this retrospective study ocular signs were not recorded in all patients with head injury in critical care set up. Hence some important clinical signs of neurological significance are liable to be missed. Emergency care personnel and intensivists should give due importance to eye injuries and pupillary signs in patients with polytrauma.

Childhood cancer awareness among undergraduate medical students in south India

Chitra Lakshmi K, Angeline Prescilla R, Julius Xavier Scott, Magatha Sneha Latha, Kannan L, Arvind Moorthy

Introduction: The demand of paediatric oncology care, when compared to specialized medical care is found to be poor in developing countries.We conducted a study to determine the awareness and interest of paediatric oncology among the medical under graduates. PURPOSE-To evaluate the current status of childhood cancer awareness among undergraduate medical students in south India and their interest in paediatric oncology career

Methods: This is a non randomized study.A 24 point questionnaire was given to the participants.Data collected was entered on to a EXCEL SHEET and processed by spss software

Results: 240 students who attended the MEDHOPE CONFERENCE 2012 from various universities in south India answered the questionnaire.70% of them answered correctly the basic knowledge questions about childhood cancer.55%of the students have not encountered paediatric oncology patients during their clinical postings. 40%did not have enough lectures on paediatric oncology. 29.6%felt that failure in effective treatment of childhood cancers was because of late diagnosis and referral and 21.4 % feel that it is because of lack of trained personnel in paediatric oncology field in ourcountry.50%were interested in pursuing paediatrics as their career but 80 % of them were not interested in pursuing paediatric oncology as their career.65.5%think that the information they have on paediatric oncology is not enough to suspect and refer appropriately during their practise. 84%feel that there is a definite need to improve paediatric oncology teaching in their medical curriculum

Conclusion: The outcome of this study shows that the clinical postings of paediatric oncology in the medical curriculum will improve the outcome of pediatric oncology care world wide.

Is the working population vulnerable to unsafe cellular phone usage?

KDT Dinesha, MDP Dilhani, MKN Dilrukshi, C Arambepola

Introduction: Guidelines for safe cellular phone use to minimize health hazards were declared by the leading international health organizations. At present, the vast majority of the Sri Lankan population owns at least one mobile phone.The objectives of the study were, to ascertain the prevalence of practices linked to health hazards of cellular phone usage, to formulate possible associations of the identified malpractices with the characteristics of the study population and their awareness of relevant health hazards.

Methods: The cross sectional study design was used in this study. A convenient sample of adult bank employees in the head office of Bank of Ceylon was selected. Each section of the bank was taken as

one cluster. All the clusters were listed and ones with less than 20 employees were taken out from the list. Five clusters were chosen by simple random sampling method to select a study population of 150, with the impression that all of them had the minimum number of 30 employees. A self administered questionnaire was used to assess the basic characteristics of the study population, the awareness of recently identified health risks of cellular phones and both safe and risky practices. The prevalence of cellular phone related practices were calculated in proportions. The knowledge regarding health risks was categorized to good and poor knowledge with the use of a scoring system to test the association with the detected practices. The selected associations were analyzed by the x2 test.

Results: Nearly equal number of males and females were found in the study population where almost half of the population was in the youngest age category. Majority of the participants were educated up to or beyond Advanced level. The greater part of the study sample was having high risk behaviours which enhance the health hazards of cellular phones. The age and the awareness of possible health hazards were found to have significant associations with the average caller time and the duration of usage respectively, where the prevalence of unsafe practice was more towards the younger ages and towards participants with poor knowledge.

Conclusion: It is evident that with the increasing availability of cellular phones, as much as it was apparent internationally, the risk behaviours were found to be very much prevalent to the same extent, hence their consequences in years to come. It is suggested to make this research a stepping stone to continue more researches and make citizens of the country aware of the health risks and preventive measures in terms of legislations as well as education programmes, so that the public can obtain the optimum use of the newest technology for the development of them and of the country.

Pattern of fractures in road traffic accident victims admitted to the accident service wards of the national hospital of Sri Lanka

Jayasinghe JASS K, Jayasekara NM, Jayasekara DP, Pathirana S

Introduction: Though out of injuries sustained following road traffic accidents (RTA), fractures contribute to the leading cause of morbidity, the local data available with regard to fracture patterns following RTA is limited.

Methods: A cross-sectional study was carried out recruiting the first 110 consenting consecutive patients who were admitted to Accident Service wards 72 and 73 of the National Hospital of Sri Lanka (NHSL) following RTA. An interviewer administered questionnaire was used to collect data. Demographic characteristics and accident characteristics were analyzed using IBM SPSS statistics 17.

Results: The study revealed that males were more prone to sustain fractures and the motorcycle drivers and passengers were the most vulnerable. Except cyclists who commonly sustained upper limb fractures, most victims of other categories suffered lower limb fractures and irrespective of the category most were closed fractures. A statistically significant difference was found in occurrence of upper limb fractures among cyclists compared to other categories. Irrespective of the age group, lower limbs were found most commonly involved in fractures. Among the fracture victims, motorcyclists predominated <42 age group whereas pedestrians predominated >42 age group and it showed with increase of age the lower limbs were involved frequently and the involvement of the upper limbs declines. Use of helmets significantly reduced the

severity of fractures. Only a few of the RTA victims had received first aid care prior to hospitalization.

Conclusion: Pattern and severity of fractures following RTA varied according to the category & age of the victim, the nature of the accident and use of personal protective equipment. Educating the public on first aid measures following RTA and to have better transport facilities to minimize the secondary damage are recommended.

Influence of extracurricular activities on the academic performance of students of Faculty of Medicine, Colombo
YHH Gunathilaka, MDU Gunathilaka, PMP Gunawardena

Introduction: Despite the fact that there are many studies done to assess the influence of extracurricular activities on academic performance of school students, hardly any study has been done on medical undergraduates.

Methods: A cross sectional study was carried out on 106 medical undergraduates of 2007 A/L batch of Faculty of Medicine, Colombo. Information regarding type of extracurricular activities, and time spent on each activity, marks obtained in three module exams were collected using a pre tested structured self-administered questionnaire. SND test for two sample means was used to analyze the means of the mean marks obtained by the students who engaged in extracurricular activities and who did not. Same test was utilized to analyze the academic performance according to the average time per week spent on extracurricular activities.

Results: According to SND test for two sample means there was no statistically significant difference between the means of the mean marks obtained by the students who engaged in extracurricular activities(mean=60.35, SD=7.035) and who did not(mean=58.52, SD=6.395)(SND =1.145,P= 0.05). Also there was no statistically significant difference between means of average marks of the students who spend more than seven hours per week(mean=60.31, SD=7.63) and who spend less time (mean=59.86, SD=6.74) on extracurricular activities(SND=0.256, P=0.05).

Conclusion: There is no significant difference between the academic performance of students who are doing extracurricular activities and who are not doing and students who spend more time on extracurricular activities do perform well in medical academic carrier as the other students.

Patients' knowledge about insulin therapy, factors affecting it and its effect on glycemic control
NP Udawella, HKW Udayakumara, WD Udawatta

Introduction: Insulin treatment is a major component of the pharmacotherapy of diabetes. Successful insulin therapy can effectively control the disease and prevent its complications, and is dependent on a large number of factors including patients' knowledge about insulin treatment. This study was carried out to describe patients' knowledge about insulin therapy, factors affecting it, and determine its relationship with glycemic control in diabetic patients on insulin therapy, attending the diabetic clinic of the National Hospital of Sri Lanka.

Methods: This study was a cross sectional descriptive study, conducted on a sample of 120 diabetic patients attending the diabetic clinic of the National hospital of Sri Lanka, selected

using a systematic sampling method. Data was collected using an interviewer administered questionnaire and patients' glycemic control was recorded from the patients' clinical records. Information about patients' socio-demographic factors, knowledge about insulin treatment and patients' glycemic control was obtained and analyzed using Statistical package for social sciences (ver. 17.0).

Results: The study sample consisted of an urban population mainly in the age group of 50 to 70 years (66.7%). Majority of the participants were female (70.8%). Among the participants 85.0% was Sinhalese while Muslims and Tamils being 10.8% and 3.33% respectively. A majority was educated up to grade 8 (32.5%) while 31.7% was educated up to ordinary level and 20.8% was educated below grade 8. Majority of the patients were housewives (31.7%) while those who were employed were earning less than Rs.20000 per month (32.5%). All of patients were type 2 diabetics and were using insulin in conjunction with other hypoglycemic drugs. Majority of the patients had moderate knowledge about insulin treatment (60.0%) followed by people who had poor knowledge (29.17%) and who had good knowledge (10.84%). 62.5% of the patients had a poor glycemic control while only 7.5% was having a good glycemic control. The complication rate was high among the participants with 87.5% having at least one complication of diabetes. It was found that a significant relationship exists between the patients' gender and over-all knowledge about insulin treatment and also between patients' gender and their glycemic control. A significant relationship was also found between the patients' level of income and their complication rates. Time period since diagnosis of diabetes and time period since commencement of insulin therapy was found to be significantly associated with the patients' rate of complications. Time period since the last education session the patient has had was found to be significantly associated with their glycemic control.

Conclusion: It was found that statistically significant associations exist between patients' gender, income level, duration of disease and insulin treatment, and time since their last education session with their knowledge about insulin treatment and glycemic control. But simple linear causal relationships were not seen in some of these associations. It can be assumed that the relationships between these factors are interrelated and confounded by each other. Diabetic patients' education sessions should be providing further information in areas of types of insulin being used to treat and their specific patterns of action and information about side effects and complications of insulin therapy. A holistic and multifaceted approach should be adopted by clinicians treating diabetic patients to achieve optimum results.

Bacteriological profile and antibiogram of chronic obstructive pulmonary disease cases- a prospective study
Kalaivani, Cinthujah B, Palaniappan N

Introduction: Chronic Obstructive Pulmonary Disease (COPD) is a spectrum of disor-ders that results in airflow obstruction. It constitutes 30% of cases seen in chest clinics and accounts for 1-2.5% admissions in hospitals all over India. Acute exacerbation of COPD (AECOPD) is defined as a sustained worsening of the patient's condition, from the stable state and beyond normal day-to-day variations, that is acute in onset and necessitates a change in regular medication in a patient with underlying COPD. The pathogens causing acute exacerbation of COPD by infecting the lower respiratory tract are respiratory viruses, atypical bacteria, Streptococcus pneumoniae, Pseudomonas aeruginosa, Klebsiella pneumoniae and Haemophilus influenzae The aim of our study is to find out the incidence of AECOPD and to study the bacteriological

profile and the antibiotic sensitivity patterns of isolated organisms.

Methods: Fifty patients clinically diagnosed with Acute Exacerbation of Chronic Obstructive Pulmonary disease were included in the study over a period of two months (July and August 2011).The sputum samples were subjected to direct gram staining and culture and the isolates were identified according to standard techniques. Antibiotic sensitivity was done by Kirby-Bauer method according to CLSI standards.

Results: COPD was common in age group of fifty five to sixty four years. Out of 50 patients 90% were males and 10% were females. The ratio of male to female is 9:1. Tobacco smoking particularly beedi smoking was seen in many male patients.(70%) Positive bacteriological culture was obtained in 46% of cases. Klebsiella pneumoniae (43.47%) was the commonest isolate followed by Pseudomonas. Most of the isolates were sensitive to Amikacin, Ciprofloxacin and cefotaxime and resistant to Cotrimoxazole, Doxycycline and Gentamicin.

Conclusion: Sputum culture is a good and simple tool to study the aetiology and sensitivity pattern of bacteria in COPD. It helps in screening resistant pathogens and select better drug for treatment.

Asymptomatic throat carriage rate of Group A Streptococcus and its association with ASO titres In school-going children in rural areas of Haryana

Radhika Bansal, Varsha A Singh

Introduction: Group A Streptococci (GAS) are known to cause 20% cases of upper respiratory tract infections in children. The children generally remain asymptomatic and lead to spread of respiratory infections in the community. They manifest in later stages of life with serious complications like ARF, PANDAS and PSGN. We carried out a preliminary study to investigate the rate of Group A Streptococci carriers and associated Anti- Streptolysin O (ASO) titres in asymptomatic school going children below 15 yrs of age in rural areas of Haryana and to determine its association with various epidemiological parameters.

Methods: Pharyngeal swabs were obtained to detect the presence GAS and blood samples were collected aseptically to determine elevated ASO titres in serum (>200IU/ml). A total of 100 samples from healthy school going children below 15yrs of age were collected- 50 samples from government school and 50 samples from private school respectively located in rural Haryana. The samples were cultured for Group A Streptococci and the results were correlated with ASO titres.

Results: Out of the 100 throat swab samples cultured, 12 samples (12%) were positive for Beta haemolytic streptococci. The frequency of Group A Streptococci was more in the students of government school i.e. 18% as compared to 4% in the children of private school. The ASO titres were positive in 35 samples (35%). The rate of ASO titre positivity was 64% in the government school and 6% in the private school. The incidence of ASO titre positivity was higher in girls as compared to boys (p<0.0001, ORR=0.091, CI: 0.032-0.254). A highly significant association was seen between ASO Titres and the lower socio economic status (p<0.001, ORR=0.036, CI: 0.0098-0.132).

Conclusion: The high carriage rate of beta haemolytic streptococci seen in children poses a threat to the community and should be checked. Regular screening needs to be done in various parts of the country with prime focus on the girl child and the economically weaker sections.

Knowledge and awareness of the cause and prevention of cervical cancer

Abhishek Tandon

Introduction: Carcinoma cervix is the second most common cancer in women worldwide, while it is the commonest cancer among Indian women. It is imperative for at least health professionals and students to have a sound knowledge of carcinoma cervix. In this study, the current knowledge of female undergraduates and faculty of health sciences regarding the various parameters like risk factors, symptoms, screening tests and vaccinations pertaining to cervical cancer was accessed

Methods: A cross-sectional, self-administered anonymous questionnaire-based survey was carried out, after institutional Ethical committee approval and written informed consent from the subjects. The study included 260 staff and students of a medical college in Mangalore and non-random sampling was done.

Results: Majority of the participants 185(71.4%) were aware that cervical cancer is one of the most wide- spread gynecological cancers in Asia. The awareness of causative agents of cervical cancer was known to 53.9% of the undergraduates and 50% of the faculty members. When asked about HPV 73% of the total study group said they have heard of it and around 68% agreed that it was detectable. 71% of the study sample had heard about the Pap smear test and 42% have undergone the test. The questions pertaining to the preventive measures of cervical cancer had good faculty preponderance with 91.8% giving a positive response. When asked about the symptoms of cervical cancer, 84.1% of the students and 79.5% of the faculty members knew that abnormal vaginal bleeding was a symptom

Conclusion: There is a growing risk of cervical cancer in women in India and HPV is the main virus responsible for this sexually transmitted cancer. Majority of our study group was well aware of the various risk factors of cervical cancer and its preventable nature however awareness regarding the association between diets, multiple pregnancies and use of tobacco was poor. Awareness campaigns are the need of hour to check the rapidly increasing incidence of cervix cancer.

Study of utilisation pattern and the cost analysis of antiviral agents in the management of chronic viral hepatitis B infection

S Mohapatra, TR Swain

Introduction: Hepatitis B virus infection is a global health problem . The antiviral drugs used in the treatment of chronic HBV infections are the oral nucleoside or nucleotide analogs like lamivudine, entecavir,adefovir. A newer group of anti Hepatitis B like telbivudine, tenofovir have entered the market. Thus it was thought worthwhile to study utilization pattern of different antiviral drugs and to throw some light on their efficacy and cost

Methods: Serologically diagnosed cases of chronic hepatitis B above 12 yrs of age were included in the study .It is an open label observational study conducted during May and June 2011 at SCB Medical College Cuttack involving patients of Gastroenterology and Hepatology Departments. In this study data from 26 persons suffering from chronic hepatitis B was recorded. This included the liver enzyme levels, serological and virological markers of hepatitis B and other related parameters. Data regarding antiviral treatment also recorded . The result was then analyzed.

Results: Out of 26 serologically diagnosed patients of viral hepatitis B, 15 patients were continuing with one form of antiviral therapy. Out of the 15 patients who were taking antiviral medication , 5 were on entecavir , 4 on lamivudine , 3 on telbivudine , 1 on adefovir , 2 patients who were previously on lamivudine were subsequently switched over to entecavir. Telbivudine was significantly more costlier compared to any other antiviral drugs used in the management of Hepatitis B.(Rs 180 per day)

Conclusion: Assessment of efficacy in terms of reduction of the HBV DNA levels and other parameters showed that both entecavir and telbivudine are highly efficacious.Entecavir proved to be more efficacious compared to lamivudine. In contrast to telbivudine, entecavir was less costly and equiefficacious. Lamivudine was cheapest among all. However resistance to Lamivudine is a problem and entecavir is better and cost effective alternative available to tackle the situation.

Sugar dressing In the treatment of diabetic foot ulcer- a pilot study
Kriti Kalda

Introduction: Today, antibiotic resistance has reached a critical mass. Economic constraints make routine pus culture and antibiotics beyond reach of poor patients. Foot ulcers are common reason for hospital stays which is financial burden for families. This study provides better treatment and faster healing rates thereby reducing length of stay and more cost effective treatment. Sugar is used since ancient times to aid wound healing. Use of finely powdered sugar to clean wounds was reported by Scultetus in 1679. In 1714 Zornin wrote on value of Sugar for promoting wound and ulcer healing. Recent reports show excellent results with sugar dressing. Sugar facilitates formation of protective layer of protein and has bactericidal properties due to its osmotic action on wounds.

Methods: A total of 20 patients with Type 2 Diabetes Mellitus with foot ulcer either fresh case or not treated outside for more than five days were taken for prospective case control study to receive either sugar dressing or standard dressing. Bacterial colonisation, rate of healing of the wound length, breadth and depth were assessed at the start of treatment and at weekly intervals. Also proforma was filled and investigation was done for a period of two months.

Results: 20 patients were enrolled. 10 received sugar dressing and 10 standard dressing. In sugar dressing there was reduction in bacterial flora in 3 cases, no organisms isolated in 2 cases and no changes in bacterial flora in remaining 5 cases as compared to 2, 1, and 7 cases respectively for standard dressing. The difference in mean length, breadth and depth in sugar dressing is 0.77, 1.4 and 0.6cm as compared to standard dressing which is 0.37, 0.65 and 0.17cm respectively.

Conclusion: The pilot study suggests that sugar appears to be more effective in reducing bacterial flora and promoting wound healing than in standard dressing.

Birthweight centiles for late pre term and term neonates: prospective cross-sectional study
Shruti Sridharan

Introduction: Birthweight is one of the key indicators to assess the health of an infant at birth. Identification of small or large for gestational age babies is important for the management of the individual pregnancy and neonate. They can be identified using centile charts of birthweight by gestational age. The objective of this study is to construct & compare 'Gender wise' centile charts for birthweight of infants born from 34 to 42 weeks of gestation.

Methods: The study was conducted in a Tertiary & Secondary Care Centre, Udupi. Prospective Cross-Sectional Study was conducted for 2 months, on Infants of 34 – 41 completed weeks of gestation. The sample size is 300, complying to the good practice of statistical study. Mothers with medical & obstetrical complications were excluded from the study. Study was done with informed written consent from the mothers. Gestational age was calculated by the Last Menstrual Period or Ultrasound. The birthweight was measured by electronic weighing machine.

Results: A total of 338 babies were considered for the study of the total 386 single babies delivered, as the balance 48 babies were not Apropriate for Gestational Age. Each of the gestational category contains a minimum of 22 babies. In this study, majority of the males(150) and female(123) babies lie between 10th and 90th centile.

Conclusion: Smoothened Centile Curves were not obtained as, when the sample was further stratified on gender, the number of subjects were reduced.A study to ascertain relationship between birthweight/Gestational age, across genders, should be taken over a longer period of time, enabling a healthy distribution of subjects on the key parameters, to lead to a better study and obtaining a better centile curve.

Prevalence of diabetes mellitus in rural Ahmedabad of Gujarat - a camp based cross-sectional study
Bhavik Shah, Dinesh Rathod, Kriti Agarwal

Introduction: Diabetes Mellitus (DM) ranks twelfth in all-cause mortality worldwide. India is emerging as a 'diabetic capital' of the world. Though Diabetes is considered as a disease of urbanites, several studies have documented prevalence of diabetes from 2 - 10% among adult rural people. The rise is mainly attributed to change in the life style and environment. The baseline data at local level regarding the prevalence of diabetes and factors contributing to its genesis can help for better planning, implementation, monitoring and evaluation of National Program for control of Cancer, Diabetes, Cardio-vascular diseases and Stroke (NPCDCS).

Methods: This was a camp based cross- sectional study conducted at 5 randomly selected taluka villages in rural Ahmedabad. A total of 230 visitors of medical camps with the age of above 20 years were selected by systematic random sampling for study purpose. Clearance from Institutional Ethics Committee (IEC) was obtained before starting the study. Predesigned and pre tested Performa was used for data collection. A drop of blood from the finger tip of each participant was collected for measuring random blood sugar by the use of rapid diagnostic kits. Data was analyzed in Epi Info 7 version.

Results: The prevalence of diabetes mellitus was 2.6 % in the study population. The prevalence was highest (6.7%) in age group 21-30 and 51-60 years. Diabetes was significantly associated with hypertension,family history of diabetes and sedentary working. Diabetes was not significantly associated with smoking, diet habit, caste and socio economical class.

Conclusion: In rural India, lack of awareness and specialist care may lead to more complications and economic burden. Awareness and early diagnosis by screening are the need of the hour to prevent epidemic of diabetes in rural population.

A study on peadiatric palliative care awareness among pediatric post-graduate students of south India

T Ram Prakash, Narayanan Balakrishnan, M Haree Shankar, IN Padmasani, Julius Xavier Scott, MS Latha, P Venkatramam, L Kannan

Introduction: Currently in India there is an increase in growing population of terminally ill patients among the pediatric age group contributing to 15.8 percent. However, the palliative care needs of these pediatric patients are inadequately met because of lack of knowledge and training programs.

Methods: The objective of the study is to evaluate the palliative care awareness among pediatric post graduate students. An observational cross sectional study was conducted using a 19-point questionnaire in the post graduate exam review course attended by post-graduates from various universities of south India. 188 post graduates attended our pediatric exam review course of which,150 postgraduates participated in this study

Results: 88% of them reported that they have never had any palliative care training throughout their curriculum. 86%were not aware of any palliative carecenters intheir area.60.7% were uncomfortable with the care of theterminally ill children.87.3%felt that a formal training in palliative care would help them.64.7%felt that they did not have sufficient knowledge to identify the signs of the terminally ill.77.3% were not comfortable in initiating a discussion about palliative care.71.3% felt that the family members of the terminally ill patient needed spiritual support.55.3% felt that the period of taking care of the terminally ill affected their personal life.79.3% felt that the health care providers involved in palliative care also needed emotional support.

Conclusion: The results of the study show that the post-graduates do not have adequate knowledge and training in palliative care and that there is an immediate need to include palliative care training as a part of their curriculum.

Prevalence of bronchial asthma among primary school children in Mangalore

Siddharth Kackar, Animesh Jain, Pujitha Arthimalla, Sonia Kaur Singh, Aditi Gupta, Ruthshee Suresh

Introduction: Bronchial asthma has a major impact on the quality of life of children. There has been a rise in the prevalence of bronchial asthma in the past few decades. The aim of the study was to estimate the prevalence of bronchial asthma among school children in Mangalore city.

Methods: A school based cross-sectional study was conducted in 4 schools in Mangalore between 16th January 2012 and 23rd January 2012. Following approval from Institutional Ethics Committee and permission from Principals, the data was collected using a questionnaire based on ISAAC (phase 3) which was filled and returned by the parents. Information regarding the symptoms and a few factors were collected regarding children. The collected data was analyzed using SPSS vers.16.0.

Results: A total of 896 children were surveyed. The prevalence of asthma among school children was found to be 7.1%. The prevalence of asthma among children aged 6-9 years was 7% and among children aged 10-13 years was 7.3%. In males, in the age group 6-9 years the prevalence of asthma was 10.3% and that in the age group

10-13 years was 9.8%. Among females, the prevalence in the age groups 6-9 and 10-13 years was 4.5% and 6.1% respectively. Some (15.6%) participants with asthma reported incidence of itching and allergic skin rashes in the family. The male to female ratio of current wheezers in our study was found to be 1.78:1. Majority (60.9%) of the asthmatics had wheezing with cold, whereas 19% of the asthmatics had wheeze with exercise. 40.6% of the asthmatics had night disturbances.

Conclusion: Our data suggests that there is a high prevalence of asthma among school going children in Mangalore. Significant association between the history of allergies in family and presence of asthma could not be found (p=0.369). The prevalence of night disturbances and wheeze with exercise are suggestive limitation of activity at home and school and probably lower quality of life.

Situational analysis of current status of health facilities and e-health management

Rohan Nanda

Introduction: Aim- to improve health facilities for the patient by maintaining proper patient database..Research basis-analysing current problems to the patient in getting proper treatment either due to lack of proper history or due to iatrogenic causes

Methods: method used:questionnaire method, setting:hospital setting,period:15 january 2013 to 15 february 2013,population:105 patients from different departments in RNT medical college and geetanjali medical college in udaipur,sampling:issues and problems related to 5 patients from each ward of surgery, medicine, paediatrics, gynaecology,orthopaedics,ophthalmology, E.N.T.from RNT medical college and Geetanjali Medical college were taken,study design:- issues and problems of indoor patients were being asked and treatment related to the disease was seen, also record of number of abortions that were done was seen,emphasis was also given on patients who developed communicable diseases like tuberculosis,HIV..Mortality rates of patients were also seen and the cause of mortality was noted.It was also noticed that how many patients are aware of immunization card, how many patients follow the proper course of therapy or leave the treatment after symptomatic relief...Analysis:it was found that complete record of abortions were not there,some patients were devoid of appropriate care and some patients could not recover from the disease even if they were provided treatment- the reason being lack of proper history of the patient

Results: If proper record of every patient can be maintained via a common platform like a software then it could help us in bringing down the mortality rates, controlling female foeticide, maintaining proper medication records, maintaining proper vaccination records

Conclusion: By means of a common software, which would link group of hospitals, for maintaining patient database; firstly, the doctors will have a true unmodified history of patients records and can make a better medical decision based on the past records.Secondly In case of wrong treatment or medical carelessness it would be too easy to track the exact responsible person.

A study on drug utilization and treatment outcomes in complicated childhood malaria in a tertiary care hospital

T Seetam Kumar, Bandana Rath, CS Maharana, Y Rojaramanni, JP Behera

Introduction: Malaria remains a major health burden in developing countries. Around 1.5 million cases and 1000 deaths occur annually in India of which 50% are due to Plasmodium falciparum. P. falciparum is the most dreadful, causes severe and complicated malaria in young children resulting in very high mortality. In view of widespread chloroquine-resistance, detection of resistance cases and evaluation of treatment outcomes still remains a global needThe present study was undertaken to find out the drug utilization pattern and treatment outcome in terms of improvement in clinical and laboratory findings in complicated childhood malaria among the pediatric age group of patients.

Methods: This was a prospective, cross sectional, hospital based study in which clinically diagnosed complicated childhood malaria cases (age <14 years), admitted to the pediatric ward were enrolled with prior informed consents from parents and ethical permission. Fever with co-infection (typhoid, HIV, TB.) and clinically suspected cases of systemic infections due to non-malarial origin were excluded. The baseline characteristics, presenting symptoms and vital signs were recorded in a pre-designed CRF. The drug utilization pattern was evaluated using WHO drug use indicator form. Treatment outcomes were evaluated from routine laboratory tests before and after treatment like parasitemia clearance, fever clearance time, period of hospital stay and cure rate.

Results: Out of total 64 cases enrolled in this study the maximum cases (71.88%) were < 5 years of age, males outnumbered females (67.19% Vs 32.81%), mostly from low socioeconomic status (51.57%) and rural areas (85.94%). The most frequent manifestation was severe anemia (76.56%), followed by cerebral malaria (43.75%). Peripheral blood smear examination revealed 81.25% slide positive cases of which 68.75% cases were falciparum positive and 31.25% had mixed falciparum and vivax positive. On treatment, the degree of parasitemia reduced significantly on day 2 (p<0.001). Again the hematological parameters, random blood sugar,total bilirubin, ALT, AST of hepatic dysfunction patients and ser. Urea, creatinine of impaired renal function cases were significantly improved as compared to their pretreatment values(p<0.001). The mean time of resolution of fever and total parasitimia clearance were 51.6±2.23 hrs and 1.58 ± 0.09 days respectively. The average period of hospital stay was 6.20 ± 0.24 days and all cases were cured.The average no. of drugs per prescription was 6.28, 41.04% were in generic names, 64.19% were injectable preparartions and 99.05% were from essential drug list. Other than antimalarials, antimicrobials (20.39%) and anticonvulsants (11.19%) were also used.

Conclusion: In the present study the use of anti - malarials for complicated childhood malaria followed national drug policy and most of the drugs prescribed were from EDL. The treatment outcome was 100% because early and prompt management was implemented.

Compliance to iron supplementation among pregnant mothers attending the antenatal clinic at De Soysa Maternity Hospital

NV Ekanayake, EMSS Ekanayake, AMBWMRNN Ekneligoda, MC Weerasinghe

Introduction: Iron deficiency is the most common nutritional disorder worldwide. Despite the existing national programme in the country and its extensive coverage, maternal anaemia is still prevalent.It is evident that poor compliance to iron supplementation is a major contributor to the reduced efficacy of the existing programme. Therefore assessing the level of compliance to iron supplementation during pregnancy and identifying factors contributing towards poor compliance is a timely issue to be addressed.

Methods: An analytical cross sectional study was carried out including 150 pregnant mothers who have not completed term and in their subsequent ante natal clinic visit at De Soysa Maternity Hospital.Systematic random sampling was used.An interviewer administered questionnaire was used to assess the compliance based on dose, frequency, time, continuity and relation to meals.

Results: 2.7% of the study population was completely compliant while 96.0% and 1.3% were categorized as partial and nil respectively. On sub analysis on drug compliance 44.7% was completely compliant with 55.3% being partial and nil. It is found that there was as association between the level of compliance and the utilization of ante natal care services [X2 =9.0207 ; df 2p<0.05] All other factors did not show significant association with the level of compliance.

Conclusion: Non compliance to iron supplementation among pregnant mothers is high and a significant proportion being partially compliant with a small proportion being nil. Most are partially compliant due to their poor dietary practices with regard to supplementation.Recommendations include assessing compliance to iron supplementation during pregnancy in a wider scale with several studies at different centeres, further analysis for the completely compliant group in order to identify the special features pertaining to them, and studies focused on assessing the reasons for lack of knowledge in this aspect among pregnant mothers.

A histological study of placenta in normal and hypertensive pregnancies

Apurva Deshmukh, Shobha S Rawlani

Introduction: Complications of pregnancy like hypertension and preeclampsia are life threatening for both fetus and mother during gestation.Present study was under taking to record the morphology and histology of Placenta from mothers with pregnancy induced hypertension.

Methods: Present study was conducted on total one hundred placentae, out of which fifty placentae were from mothers with high blood pressure and fifty placentae from normotensive mothers having uncomplicated pregnancy. Gross and histological changes were recorded in both the groups.

Results: It was observed that placentae of hypertensive mothers were small in size.In some placentae of hypertensive mothers there was marginal insertion of umbilical cord,areas of calcification,necrosis and infarction were also observed.Histological findings showed proliferation of cytotrophoblastic cells in villi. There were formation of syncytial knots,fibrous tissue proliferation, fibrinoid degeneration.Areas of hyalinization and calcification were observed.Rupture of blood vessels and spillage of blood in intervillous space was also observed.

Conclusion: These findings suggest that above changes in placenta are due to hypertension induced in mothers during pregnancy.

Attitude and perceptions of medical students regarding teaching carried out by postgraduate trainees

Vindya Gamage, Anuja Abayadeera, DG Chathumini

Introduction: Attitude and perceptions of medical students regarding teaching by postgraduate trainees (PG) are useful for planning teaching activities and for optimal utilization of a valuable

training source in busy teaching hospitals.

Methods: It was a descriptive cross sectional study .A self administered questionnaire was used on undergraduates doing clinical appointments in Faculty of Medicine, University of Colombo,Sri Lanka during July – August 2011.

Results: Four hundred and eight five undergraduates responded with a male: female ratio of 45%: 55 % . Majority were taught by PG trainees 2- 4 times a week. Teaching times lasted 30 – 60 minutes. Majority (80%) considered PG teaching important and enjoyed it. Most found them useful to learn clinical skills, procedures and short/ long cases and 33% thought it important to learn theory. Among them 90% mentioned that all PG trainees do not take equal responsibility and 66% noted a difference between teaching by registrars and senior registrars. Main reasons for the PGs to teach were, for benefit of students (95%), self satisfaction (82.1%) and to remember theory (82.1%). Suggestions for improvement included timetabling of classes and the friendly attitude of PGs.

Conclusion: Undergraduates accept post-graduate residents as an effective personnel source. Timetabling of teaching activities and preparing the PG trainees as educators may optimize their contribution for undergraduate training.

Study of proportion of hypothyroidism in patients with type 2 diabetes mellitus
Apurva Vinay Nichale

Introduction: Thyroid disorders and diabetes mellitus are quite common endocrinopathies. Thyroid hormones affect glucose metabolism via several mechanisms. Moreover, thyroid hormones have significant effects on the synthesis, mobilization and metabolism of lipids. Thyroid diseases further increase with age and in patients with obesity and metabolic syndrome. Thyroid dysfunction in patients with type 2 diabetes is about 10%-31%, with subclinical hypothyroidism representing most common thyroid condition. This hospital-based case control study aimed primarily to find out the proportion of patients with hypothyroidism in type 2 diabetes mellitus along with to compare the proportion of complications due to hypothyroidism and diabetes mellitus among diabetic and non-diabetic patients.

Methods: The study is a case control study. The protocol for the present study was approved by the Medicine Department, Government Medical College, Nagpur. Written informed consent obtained from all participants. The study was conducted in Government Medical College, Nagpur. The type 2 diabetes patients were recruited from diabetic outpatient clinic. Apparently, healthy relatives of patients and other patients attending outpatient departments in Government Medical College were included as controls of the same age group. Sampling is done in such a way that controls are similar to cases with regard to variables like age group. A total of age matched 150 female subjects were recruited and evaluated for height, weight, waist circumference and waist: hip ratio, blood pressure, fasting and postprandial plasma glucose, fasting serum triglycerides and HDL-cholesterol and thyroid examination along with structured interview method. Sera obtained from all patients for the measurement of fasting and post – prandial blood glucose levels, glycated hemoglobin level and a thyroid profile test. Clinical variables studied included Sr.TSH, Sr.T3, and Sr.T4. Statistical Analysis is done by using SPSS version 15. The association of hypothyroidism in Type2 Diabetes Mellitus is done by calculating Odd's ratio along with 95% confidence intervals and tested by Chi square test.

Results: Mean age was 46.78 years with SD of 6.Demographic studies regarding working status, 23% patients had some form of regular employment, 59% patients were non working and rest had irregular work. Among research variables, Sr.TSH was higher in Type2 DM group and when compared with control group, findings were statistically significant.Sr.T4 levels are lower in type2DM patients. Cardiovascular problems were profoundly seen in diabetic patients than the control group. The risk of retinopathy and nephropathy is higher in diabetic individuals as and when compared to the control group. Those not on thyroxin therapies had poor control of diabetes.13. 48% had BMI>24.9kg/m2, 11% had BMI>30% while rest being in normal range. Elevated sr.TSH-13.33%, elevated waist: hip ratio-36%, dyslipidemia-18.66% while 58.6% having blood pressure >/= 130/85 mm hg and cardiovascular symptoms while 10% and 19% had diabetic retinopathy and neuropathy respectively.

Conclusion: Higher Sr.TSH levels are associated with deranged glucose metabolism, suggesting positive correlation. Normal values of body mass index, waist: hip ratio predicts better compliance as well the working status of patient. And finally higher TSH negatively correlates with glucose control. Dysglycemia can depress thyroid function, but thyroid disorders can cause dysglycemia and predispose to insulin resistance and metabolic syndrome. Thus healthy thyroid function depends on keeping the blood sugar in a normal range, and keeping blood sugar in a normal range depends on healthy thyroid function. Therefore, early diagnosis and management of hypothyroidism improved compliance with treatment with resultant better management of illness.

Knowledge, attitude and practice of primary wound care in prevention of rabies among victims of mammal exposure attending Rabies Treatment Unit
Sashikala Mathotaarachchi, Sahan Mendis

Introduction: Rabies is almost a fatal disease caused by a neurotropic lyssavirus, which is transmitted by mammals. Most of the deaths can be prevented through post exposure prophylaxis including primary wound washing with soap and water or antiseptics. The knowledge and practice of primary wound care is poor in South Asian countries. The aim of the study was to assess the knowledge, attitude and practices among victims of mammal exposure attending Rabies Treatment Unit of the National Hospital Sri Lanka.

Methods: A descriptive cross sectional study was carried out among victims of mammal exposure attending Rabies Treatment Unit of the National Hospital, Sri Lanka. Sample of 111 was selected using non probability convenient sampling. Their knowledge, attitude and practices were assessed using an interviewer administered questionnaire. Frequencies, percentages and associations between variables were analyzed using computer database.

Results: Majority of the participants were males (64.9%). 43.2% of the population belonged to the age range 21-40 years. Majority had dog bites (63.06%) and rest were due to rats (14.4%) and cats (11.7%). 55.9% of injuries were due to exposure to stray animals. Majority of the injuries were seen in legs (65.8%). 88.3% scored >50% of knowledge score. Among the victims, (95.5%) have washed the wound with soap and water or antiseptics and out of which 16.2% had used hand remedies. 6.3% had received tetanus toxoid vaccine prior to the visit to the unit. Knowledge regarding Rabies did not correlate with the correct practice (p>0.05). Participants with good education scored significantly higher in knowledge score (p<0.05). 98.2% of the participants have good attitudes on correct practice of primary wound care.

Conclusion: Although there were few malpractices, most of the population followed the correct practice of primary wound care. However their knowledge on fatality of the disease was unsatisfactory. General public should be educated regarding prevention of rabies especially about the fatality of the disease and the importance of proper primary wound care.

Prevalence of PAN resistant bacteria from surgical unit of tertiary care hospital
Avinash Kumar, Vijayshri Deotale

Introduction: Patients who are ill and have suppressed immune system have a greater risk of nosocomial infections arise from surgical wounds and other inpatient used things like patient wearing, IV stand, bedding etc. Also the blind antibiotic therapy leads to the resistance in the bacteria. This trend has given rise to the PAN resistant bacteria which are very difficult to manage. Therefore to check the increasing burden of PAN resistant bacteria we must know the pattern of these PAN resistant bacteria, their colonization in the surgical wards and their association with the disease. In the study our aim was Isolation of PAN resistant Gram negative bacteria from clinical specimens and isolation correlation with Environmental sources.

Methods: It was a prospective study, which depended upon the samples sent by surgeons and then collection of samples from environmental sources related to the same patient. Once the identification of the organism is established we did sensitivity testing as per CLSI guidelines and then correlation with patient sample were done. Study was carried out on 30 patient samples in the Department of Microbiology of a rural medical college in central India in the duration of two months i.e. June and July of 2012. sampling was done by sterilized swab from bed sheet, IV stand, bed railing, IV cannula, catheter etc.

Results: E. coli , Klebsiella spp , Acinetobacter lowffii , Acinetobacter baumannii & Pseudomonas aeruginosa were main prevalent PAN resistant bacteria .Bed sheet, IV stand and IV cannula were main environmental sites from where PAN resistant bacteria were isolated. Environmental correlation were matched successfully with 3(10%) out of all 30 samples taken into consideration.

Conclusion: Klebsiella, Acinetobacter and Pseudomonas were main prevalent PAN resistant bacteria from environmental samples in surgical units. 10% of total PAN resistant samples were correlated successfully.

To study and compare the prevalence of Cryptosporidium parvum infection among immune competent and immune compromised patients with diarrhoea
Saikat Roy, Partha Roy

Introduction: Cryptosporidium parvum is a protozoa causing cryptosporidiosis. Primary symptoms are acute, watery, and non-bloody diarrhoea. The study analyzes the prevalence of cryptosporidium infestation in the immune-compromised patient and compares the same among immune-competent subjects within the same age group having complaints of diarrhoea. The study also forms a scoring system relating the numbers of oocysts of cryptosporidium observed per oil immersion field with the CD4 counts of the immune compromised patients to quantify the severity.

Methods: This is a comparative and quantitative study with a sample size of 150. Stool samples of patients is used. From the sample, a thin smear is made. For the study of oocysts modified Ziehl-Neelsen staining (Kinyoun modification) is done. Significant and positive result is considered as count of oocysts more than 30 /oif. Becton- Dickinson FACS counter is used for CD4 count. Quantitative variables are described using mean and standard deviation and qualitative variables using %. 95% confidence interval are calculated for prevalence values, the difference is tested using 'z' test and association with age was tested using 'Chi-Square test'.

Results: Prevalence of cryptosporidiosis among the studied sample is 28.66% while that among immune competent patients is 27.38 % and immune compromised is 30.30% having a case distribution with a mean age of 39.32 years. All age groups are equally affected with almost similar prevalence among immune competent and immune compromised patients of 25-35 age group. Prevalence among immune compromised is highest aong HIV, transplant and cancer cases.Scoring-3+ score for very low immune status with a mean oocyst count of 341-599 corresponding with 60-180 CD4 range. 2+ score for low immune status with a mean oocyst count of 300-310 corresponding with 180-300 CD4 range. 1+ score for moderately high immune status with a mean oocyst count of 277-293 corresponding with 300-420 CD4 range.

Conclusion: The project brings out that the cryptosporidium infection is common not only among immune suppressed but also has a high prevalence among immune competent. Any age group among adult population can be affected. The scoring system can help health care workers in periphery to diagnose immune status of a patient.high prevalence is seen in patients with hepatitis and type 2 diabetes.

Subclinical hypothyroidism among rural women
K Sathya Prakash

Introduction: Subclinical hypothyroidism is a condition where Thyroid Stimulating Hormone(TSH) is elevated in the presence of normal serum free thyroxine and triiodothyronine levels. It may progress to overt hypothyroidism and lead to adverse effects on pregnancy outcomes, lipid abnormalities, hip fracture, dysfunctional uterine bleeding etc., To find the prevalence of subclinical hypothyroidism among rural women attending a teaching hospital

Methods: Healthy women of all age including pregnant without any co-morbid illnesses attending Chennai Medical College Hospital, willing to participate in this study were investigated for subclinical hypothyroidism after an approval from institutional ethics committee. About 3 ml of venous blood was collected for estimation of Thyroid function test by ELISA. The data were analysed by simple descriptive statistics

Results: A total of 417(age range:16 to 67; median:29 years) were screened over a period of two months. Among them 37(11.7%) had laboratory evidences suggestive of subclinical hypothyroidism. Another 32(7.7%) had overt hypothyroidism. There was a positive correlation between increasing age and the prevalence.

Conclusion: The present study has identified subclinical and overt hypothyroidism among rural women thereby indicating a need for community based studies so as to find out the true prevalence of subclinical hypothyroidism and overt thyroid disorders among women in rural areas. Further detailed investigations/ studies are needed to find out the probable causes, contributory factors, presenting features and interventional strategies.

An assessment of knowledge and attitudes on pre-hospital care among first year medical students in a medical faculty in Sri Lanka

MA Chamila Lakmal, PCI Wijesinghe

Introduction: Pre hospital care(i.e. first aid) is an essential skill required by all medical students. However, many studies have shown that the knowledge of pre hospital care among medical students is deficient. This study aims to assess the knowledge and attitudes on pre hospital care among first year medical students of the Faculty of Medicine, University of Colombo.

Methods: A cross-sectional study was performed which consisted of 135 first year students. Data was collected using a self-administered questionnaire. Questions to assess knowledge were obtained from a validated questionnaire (http://www.revive2survive.com.au). Parametric data was analyzed using descriptive statistics and cross tabulation. A p value<0.05 was considered significant.

Results: Male:female ratio was 31.5 : 69.5. The mean age was 21.48(range=23-19) years. 28% of students had some form of previous training on pre hospital care. The mean score on knowledge was 41.11% (range=68-29). 71% of the students scored < 50% for the knowledge questionnaire. Students scored least in questions on CPR, fainting attacks and cut injuries with 85%, 63% and 57% responding incorrectly. Questions on rescue breaths and hypoglycemia were the most successful with 80% and 67% responding correctly. Only 31% of the students knew the contact number of the local emergency ambulance service. Students with previous training on pre hospital care scored significantly higher (p=0.02). There was no difference of the students' performance with gender or age. Majority(95%) the students scored >50% for the questions on attitudes. 85% the students said they would like to participate in a pre- hospital training program, out of which 80.9% preferred practical sessions. 95% of the participants wanted an update of training at least annually.

Conclusion: Knowledge on pre hospital care among our student sample was poor. Students with previous training performed better than others. Students have good attitudes and are motivated to gain skills on pre hospital care. Practical sessions with regular updates will help students to improve their knowledge on pre hospital care.

Laser induced breakdown spectroscopy (LIBS) in diagnosing tuberculosis: a proposed tool

Sandeep Singh, Sorabh Badaya

Introduction: The global tuberculosis epidemic, killing 2 millions and adding 9 million new cases a year, remains a major public health concern. Low sensitivity of sputum smear, long time taking process for mycobacterium culture to be interpretable make them non effective tool in the current scenario. Declining quality of the smear examination in overburdened laboratories in HIV-endemic countries like India makes acid-fast smears on sputum specimen as a relatively insensitive test for pulmonary tuberculosis in AIDS/ARC patients is another concern. None of the commercially available rapid test are well enough to replace sputum smear microscopy, thus this test have little or no role in the diagnosis of pulmonary tuberculosis. Thus the development of rapid and accurate new diagnostic tools is imperative.

Methods: This brief hypothesis postulates a screening tool aimed to have a real time detection of tubercular bacilli using LIBS modality. Laser Induced Breakdown Spectroscopy (LIBS) is a spectrochemical method for determining the elemental composition of various samples present in any phase, by simultaneously vaporizing and exciting the sample and thus it improves the spectrochemical techniques by eliminating the requirement of sample pre-treatment. LIBS system focuses a high peak power laser pulse onto a targeted material to produce a laser spark or microplasma. Elemental line spectra is created, collected and analyzed by a fiber spectrophotometer since nano- to micro-grams of material are ablated in femto- to nano-seconds (depending on the laser pulse duration), the whole process can be considered as minimally destructive and real time.

Results: The postulated hypothesis is aimed to use laser induced breakdown spectroscopy (LIBS) in the detection of tubercular bacilli as trace mineral elements acts as biological signature in living and non living entities and store information regarding habitat, nutrition, and other environmental conditions. Previous researches have shown significant differences in trace element concentration in different bacterial strains.

Conclusion: The technique is exemplified by suggested use of LIBS in studying biological samples such as tissues, gall stones, biological aerosols in vivo cancer detection and discrimation of E. coli strains.

Epidemiology, KABP and reasons for defaulting among pulmonary tuberculosis (TB) patients, being treated at chest out-patient (OP), Chengalpattu Medical College (CMC) Hospital

P V Sudharsan, Dinkar Sreekumar

Introduction: The top priority areas of TB research include epidemiology, health services research and basic research. This research project strives to fulfill these research needs.

Methods: A 2-month long, cross-sectional, hospital-based study on 188 pulmonary TB patients, attending chest OP in CMC Hospital was conducted using a pre-designed pre-tested structured questionnaire. Convenience sampling was used and data analysed using SPSS Inc. Version 18.0.

Results: In this study, 54% of the patients affected were in the age group of 16-40 years of age, and 70% were males. The distance to the tertiary care centre (for initial diagnosis and other investigations) didn't have a role to play in defaulting (P value – 0.034) but is found to be a major player for delay in diagnosis of tuberculosis (P < 0.001). The highest defaulting was seen during the 2nd month of the treatment, especially when 85% of the patients had felt a significant improvement of their symptoms. Also, it was found that 67.1% patients are not directly observed as per DOTS provisions. With regard to the KAPB aspect of the study, 60% were either unsure of the cause of TB or thought it was related to smoking. However, 79% knew that they can prevent their disease from spreading to others by covering their mouth, while coughing/sneezing, with a hand-kerchief. 19.7% patients said they had faced discrimination from others owing to their disease.

Conclusion: Being a male (3-fold risk), alcoholism (2-fold; P value-<0.03), smoking (2-fold; P value - <0.001) and an improvement in symptoms (p = 0.032) tend to have a higher risk of defaulting. Other factors – age, education level, employment, type of house, social stigma or poor treatment supervision do not have a role to play in defaulting. The KAPB of the given population is poor and hence has to be addressed by proper IEC activities, through appropriate media.

Electrocardiographic abnormalities in persons with asymptomatic type 2 diabetes of rural area of Amravati districts in Maharashtra

Sujata Shivlal Rawlani

Introduction: Coronary Artery Disease has a high prevalence in Asian Indians. Coronary artery disease is the leading cause of morbidity and mortality in patients with type 2 diabetes and is often asymptomatic because of silent myocardial ischaemia. The objectives of the present study were to find out the prevalence of asymptomatic coronary artery disease in type 2 diabetes mellitus with Electro cardiogram.

Methods: This is a cross-sectional study carried out at the Diabetes Clinic of the Department of Medicine. The study population comprised one hundred consecutive persons with T2DM, (aged 30-70years). Diabetes mellitus was diagnosed using the World Health Organization diagnostic criteria of fasting plasma glucose. Information on age, sex and anthropometric measures were obtained from all patients and controls. Family history of diabetes, hypertension, IHD, stroke, and sudden cardiac death were obtained. A 12-lead resting ECG reading was recorded on all subjects using the ECG machine (Schiller, Baar Switzerland). Prevalent rates were calculated as percentages and comparison by chi- square test. The data was considered statistically significant when $P < 0.05$

Results: In the present study out of 100 patients, ECG changes were positive in 43 (43%) and was normal in 57 patients (57%). Out of 43 positive cases 28 (65%) were males and 15 (35%) were females.
Conclusion: This study suggests that the prevalence of coronary artery disease in type 2 diabetes mellitus who are asymptomatic, without past history of ischemic heart disease, CVA or hypertension is 43%.

Wormian bones with os inca - a rare dissection finding

Dinkar Sreekumar

Introduction: A large Wormian bone at the 'LAMBDA' is often referred to as INCA BONE (OS INCAE/OS PARIETALE) [Le Double, 1903] is the topic of interest of this study. The New World Populations have generally high-frequency of the Inca bone whereas lower frequency occurs in North East Asians, with lesser frequency in Indians - especially in south Indians(1). The squamous part of the occipital bone consists of two parts – supra-occipital and interparietal. Embryologically, the interparietal portion ossifies intra-membranously and in rare cases, may be separated from the supra-occipital part by a suture. It is then called as interparietal or Inca bone(2).Wormian bones, also known as "extra" sutural bones are extra bone pieces that occur within a suture in the cranium.

Methods: An Os Inca accompanied by sutural bones on either side was found in a male cadaver of approximately sixty-five years of age, of the south-Indian population, during the conventional method of dissection.The calvarium was also subjected to radiological examination.

Results: An incomplete, divided, median Os Inca was found with multiple wormian bones placed laterally on it's both sides. The radiological anatomy of this Inca bone will be revealed during the poster presentation.

Conclusion: The knowledge of Inca ossicles and wormian bones in the human skulls play an important role, clinically, for the Neuro- surgeons, Orthopaedic surgeons, Anthropologists, radiologists; the anatomists in view of teaching; Forensic experts with respect to reporting.Also, wormian bones are a marker for various diseases and important in the primary diagnosis of Osteogenesis imperfecta. Wormain bones are also seen in Pyknodystosis, rickets, cleidocranial dysostosis, hypo-parathyroidism, Down's syndrome, etc. The embryology, genetic, and aetiological factors of diseases associated with Os Inca and wormian bones will be listed at the valuable time of presentation.

A prospective study to assess relationship of homocysteine with stroke

Shikha Adil, Suresh BV, Shivananda Pai

Introduction: A stroke or a cerebrovascular accident is a medical emergency and a leading cause of morbidity and mortality amongst adults. Marked increase in plasma homocysteine may present as Homocystinuria. Our aim is to find out the association of urine homocysteine with incidence of stroke.

Methods: Patients admitted in Government Wenlock Hospital, Mangalore and KMC Hospital, Ambedkar Circle, Mangalore; and diagnosed with Stroke during the month of July and August were included in the study. Permission was obtained from the Institutional Ethics Committee and Medical Superintendent of the respective hospitals to communicate and examine the patient, to assess investigation reports and to conduct Urine Homocysteine Test. After informed consent, age and sex matched healthy controls were evaluated for urine homocysteine.

Results: 50 cases were reported with male preponderance in the ratio of 3:1. Mean age was found to be 60.66. Most common symptom observed was weakness of limbs. Only 8 patients were urine homocysteine positive with relative risk of 2.19, which included 1 patient without association of any known risk factors. None of the controls were proved to be Urine homocysteine positive.

Conclusion: The current study concludes that age has a strong influence on incidence of stroke as most of the cases were seen in elder age especially in age group of 60-70 years. Amongst females, incidence of stroke almost doubled after menopausal age depicting strong influence of sex hormones. Other risk factors like Hypertension, Diabetes mellitus, Dyslipidemia, smoking, Alcohol intake were found to be associated with incidence of stroke. Even in patients without any risk factors, who form a small portion of the total disease burden at present, Homocysteine is an important and independent risk factor.

Normative data of tibial motor nerve conduction study from flexor hallucis brevis in central Indian male subjects

Aafreen Bari

Introduction: Posterior tarsal tunnel syndrome(PTTS) is tibial nerve compression at the ankle. Nerve conduction and electromyographic studies are considered definitive tests for PTTS which most commonly compromises medial plantar motor branch of the tibial nerve. The most common recording techniques for it involves recording over the motor point of the abductor hallucis(AH) but Flexor Hallucis Brevis(FHB) is also innervated by it.Tibial motor nerve recording from the FHB may be an alternative to AH recording.It is possible that recording from the FHB may be valuable especially when recording from the AH has become problematic. However, normative data has

not been established for this technique. The purpose of our study was to establish normative values for Tibial motor studies recorded from the FHB.

Methods: One hundred male subjects were selected from healthy volunteers between the age group of 18-40 years from central India most of which were residents of the district. Subjects with known causes of neuropathy, malignancy etc. were excluded. After relevant clinical history, neurological examination was done and patient was subjected to electrophysiologic examination with due consent. Nerve conduction study consisted of Motor nerve conduction and F wave study of tibial nerves with recording from FHB of non-dominent leg. Study was done in supine position using RMS EMG EP Mark-II machine.The normative data consists of parameters like distal motor latency, compound muscle action potential amplitude, conduction velocity and F wave minimum latency of motor nerve which were recorded and analyzed using Microsoft excel 2007 and P value significant if found to be <0.05.

Results: This study examined the nerve conduction parameters of motor Tibial nerve with recording from FHB in healthy adult male subjects. Normative and reference values for the healthy adult population of Central India were established.

Conclusion: Our study results indicate that motor recording from FHB produces a clear and consistent initial negative deflection from baseline, allowing an accurate assessment of nerve conduction velocity across the tarsal tunnel. This may make recording from the FHB preferable in assessing posterior tarsal tunnel syndrome when technical challenges occur with AH recording.

Utility of 99mTc– ECD SPECT in prognostication of moderate and severe traumatic brain injury

Jigish Ruparelia, Roopesh Kumar, Dhanapathi Halanaik

Introduction: Traumatic Brain Injury (TBI) contributes to 11% of total deaths in India. Many structural imaging modalities, including CT scan and MRI have traditionally been used for diagnosis. However, it has been observed that patients with normal or near normal CT often have functional disabilities. Functional neuroimaging using PET (Positron Emission Tomography) and Brain SPECT (Single Photon Emission CT) can probe into these dimensions. No documented studies in India have yet assessed the benefits of Brain SPECT in determining the outcome of patients after TBI. Hence, we carried out a study to assess the diagnostic benefits of Brain SPECT over a plain CT scan, as well as to determine the outcome and compare this with the SPECT findings.

Methods: Patients aged 12 to 60 years with an index Glasgow Coma Score of 3 to 12, and having a normal or near normal CT were included. Approval was obtained from Institutional Ethics Committee and informed consent was acquired from each participant. Brain SPECT was carried out within 72 hours of the injury, and findings analysed by a nuclear physician. SPECT data was then compared with the CT scan and clinical findings. Outcome of patients was assessed, 30 days post-injury, using Glasgow Outcome Scale.

Results: 12 patients were included. Outcome data was available for 9 patients. We observed that Brain SPECT was a more sensitive diagnostic modality than CT scan as it was better in picking up abnormalities in brain function. However no concordance was observed in the Brain SPECT findings and the 30-day outcome of the patients.

Conclusion: Brain SPECT using 99mTc-ECD is more sensitive and

can detect areas of brain with functional abnormality better than a CT scan. However, the prognostic benefits of Brain SPECT could not be satisfactorily determined in this study due to the lack of an adequate sample size, and resource and time constraints. Further studies with a larger sample size and greater time period of follow up are required in this field.

Central obesity, its relation to obesity and its various associations

Shipra Goel, Anupam Prakash

Introduction: Malnutrition continues to prevail in India; diseases of undernutrition have been supplanted by diseases of over nutrition. The pandemic of obesity threatens the whole world today. Although Body Mass Index (BMI) is a good yardstick to ascertain the nutritional status of an individual, over the years there has been a paradigm shift in focus on central obesity. The increasing recognition of a strong link between central adiposity and metabolic disturbances prompted this study to identify the association of central adiposity with obesity and to identify its various correlates.

Methods: A cross-sectional study was conducted in which 250 adult subjects in the age group of 30-60 years who attended the medical out-patient departments of LHMC & Smt. Sucheta Kriplani Hospital, Delhi were evaluated after obtaining an informed written consent. Waist circumference and BMI were determined by the standard technique. Each subject was evaluated for various variables like blood pressure, fasting/post prandial plasma sugar, serum triglycerides, serum total cholesterol, serum high density lipoprotein-cholesterol, serum alanine transaminase, serum alkaline phosphatase and mid upper-arm circumference. Statistical analysis was done to find out the correlationship between waist circumference and BMI and also with other variables determined using Karl Pearson's coefficient of correlation. Rejection criteria for null hypothesis was $p < 0.05$.

Results: 69.6% subjects in the study were found to be centrally obese as regards to 66.4% subjects with higher BMI of greater than 23 kg/m2. 68.4% were found to be hypertensive and 62.7% were found to have dyslipidemia. There was a strong correlation between central obesity and BMI (r=0.83) and also with Mid Upper Arm Circumference (r=0.76). There was also a significant relation found between serum cholesterol level and central obesity (r=0.3). The prevalence of Central Obesity was higher in diabetics as against non-diabetics. Also, 74.3% hypertensives were centrally obese (r=0.23) as compared to 56.9% centrally obese non-hypertensives.

Conclusion: The present study clearly reveals that waist circumference is intimately linked to BMI, weight, diastolic blood pressure, serum triglycerides, serum total cholesterol and Mid-Upper Arm Circumference

Cross-sectional study on post-exposure prophylaxis (PEP) practices among health care workers (HCW)

Rahul P Nambiar, Sarbjit Mohapatra, Aditi Khanna, Praveen R, D Sai Bhavana

Introduction: The risk of acquiring Hepatitis B infection is greater than that of acquiring HIV infection (30% to 0.3%) following needle stick injury (NSI). PEP practices reduces the risk of developing Hepatitis B. This study was conducted with the aim of comparing PEP practices among doctors and paramedical staff of teaching hospitals in Mangalore.

Methods: This cross sectional study was conducted in teaching hospitals affiliated to Kasturba Medical College, Mangalore. A pretested semi-structured questionnaire was prepared to collect details about basic socio-economic information and details of PEP practices following NSI (Local measures, Reporting incident, Evaluation of blood sample, Follow up of the report, Immunoglobulin therapy) . After obtaining consent from institutional ethics committee, questionnaire was administered to HCW in their respective workplace. The collected forms were analyzed using SPSS version 12. Chi square test was used to compare vaccination details between doctors and other para medical staff. 'p' < 0.05 was considered significant.

Results: A total of 291 HCW responded. Out of which 70 had NSI / exposure to potentially infectious body fluids. The PEP practices of the HCW were as follows (%): local measures (59), blood sample evaluated for seropositivity (34), follow up with report (27), reported the incident (19) and took immunoglobulin therapy (1). Outcomes were as follows (%): Seronegative (75.9), Seropositivity (1.7), Did not make an attempt to know (22.4). Comparison of PEP between doctors and the paramedical staff were as follows (%): Local measures (77.6, 22.4), Report (50, 50), blood sample evaluation (72.7, 27.3), follow up (69.2, 30.8). One doctor had taken immunoglobulin therapy.

Conclusion: The PEP practices were better followed among the nurses than the doctors. HCWs must be educated about post exposure prophylaxis practices for better management of NSI.

A cross sectional study on needle stick injuries (NSI) among health care workers in Mangalore

Aditi Khanna, Rahul P Nambiar, Praveen R, Sarbjit Mohapatra, D Sai Bhavana

Introduction: Hepatitis B virus is 50 to 100 times more infectious than HIV. Due to its enhanced prevalence health care workers (HCWs) are at higher risk of acquiring hepatitis B infection. So the study was conducted with the aim of finding out type of needle stick injuries (NSI) / nature of exposure among HCWs.

Methods: This cross sectional study was conducted in teaching hospitals affiliated to Kasturba Medical College, Mangalore. A pretested semi-structured questionnaire was prepared to collect information about basic socio-economic information and details of NSI / exposure to potentially infectious body fluids (like nature of exposure, clinical activity / procedure during which NSI occurred, etc.). After obtaining approval from institutional ethics committee, the questionnaire was handed to HCWs in their respective workplace. The collected forms were analyzed using SPSS version 12.

Results: A total of 291 HCWs responded. Out of which 70 had NSI / exposure to potentially infectious body fluids. Majority of the HCWs had it between 1-6 months. The nature of exposures are (%) : prick with glove on (68.1), intact skin without gloves (26.1),to skin with a cut or abrasion (7.2), transcutaneous exposure by a suturing needle (13) &injection needle (20.6). The incidence of NSI exposures are more in doctors (79.7%) as compared to para medical staff (20.3%). The comparison of NSI / exposure between doctors and para-medical staff are (%): prick with glove on (78, 22), intact skin without gloves (100, 0), skin with a cut / abrasion (80, 20), transcutaneous exposure by suturing needle (100, 0) & injection needle (79, 21).

Conclusion: The NSI rates are higher than those reported previously. It is essential to educate doctors on universal precautions and post-exposure prophylaxis practices.

A cross sectional study on hepatitis-B vaccination status among health care workers in teaching hospitals in Mangalore

Sarbjit Mohapatra, Aditi Khanna, Rahul P Nambiar, Praveen R, D Sai Bhavana

Introduction: India with 350 million cases is the second largest global pool of chronic HBV infections. The most effective and feasible means of preventing HBV infection is by vaccination. As Health Care Workers (HCWs) are at higher risk of acquiring Hepatitis B, this study aimed to investigate their vaccination status.

Methods: This cross sectional study was conducted in teaching hospitals affiliated to Kasturba Medical College, Mangalore. A pretested semi-structured questionnaire was prepared to collect details about basic socio-economic information and vaccination status (like number of doses, booster doses, time interval between doses etc.). After obtaining consent from institutional ethics committee, questionnaire was administered to HCWs in their respective workplace. The collected forms were analyzed using SPSS version 12. Chi square test was used to compare vaccination details between doctors and other para medical staff. 'p' < 0.05 was considered significant.

Results: A total of 291 HCWs responded to our study. Majority (278 i.e. 95.2%) of them were vaccinated. But only 49.5% of them completed the primary series of vaccination according to the schedule. Only 17.2% subjects have adequate titre value. The common reasons for not completing the primary series/taking the booster doses were forgetfulness (26.3%), due date not yet (17.2%), no time (10%). The comparison of vaccination characteristics between doctors vs. paramedical staff as follows (%): vaccination coverage (56, 44), number of primary doses (51.7, 48.3), correct time interval between 1st and 2nd dose (75.5, 24.5) and 2nd and 3rd dose (63, 37), taken at least 1 booster dose (66.7, 33.3).

Conclusion: A low (49.5%) coverage among HCWs means there is ample scope for improvement. The doctors have better vaccination coverage than para-medical staff. Hepatitis B vaccination should be made mandatory for all HCWs.

Urinary tract infection (UTI) in the elderly- a clinical and microbiological study

Soorya M, Rejitha IM, Palaniappan N

Introduction: Urinary tract infection (UTI) is the second most common infectious complaint in geriatric clinics overall. The common risk factors for UTI in the elderly are the use of urinary catheters, living in a long-term care facility or nursing home, hormonal factors, anatomical factors, functional factors and metabolic factors.Chronic urinary symptoms are common in elderly persons, and the classic triad of UTI-frequency, urgency, and dysuria occurs routinely in older persons without infection. The common organisms causing UTI are E.coli, Klebsiella, Proteus, Staphylococcus aureus etc. Antimicrobial resistance among uropathogens is increasing. The knowledge of microbiology and antibiotic susceptibility of micro-organisms causing the disease is vital for defining the empirical treatment. This study will be undertaken to find the distribution of isolated uropathogens and their antibiotic susceptibility pattern in elderly people

Methods: A total of 100 elderly patients aged 65 years and above with symptoms of UTI who were treated at Government Medical College Hospital Tirunelveli were included in this cross sectional study over a period of two months. The antimicrobial susceptibility to various drugs was studied by the disc diffusion method, following the CLSI guidelines. Confirmation of the extended spectrum β-lactamase (ESBL) production was done by the Double Disc Synergy Test (DDST) and they were further confirmed by the E-test ESBL strip randomly.

Results: Of the 100 samples, 28 were culture positive and 72 were negative. Klebsiella species was the predominant isolate in this study (12 isolates) followed by E.coli (5) and Proteus mirabilis(4). Two isolates of Acinetobacter and Citrobacter and one each of Pseudomonas and Candida were identified. One patient had a growth of Coagulase negative Staphylococcus. The antibiotic resistance of the organisms isolated in this study was unusually high. Most isolates were resistant to Fluroquinolones and Cotrimoxazole. Only one-third of the uropathogens were susceptible to Amikacin and Gentamicin. The most troublesome finding of the present study is that ESBL-positive organisms (22 isolates) accounted for 84.6% of the total infection. The isolates of K. pneumoniae (42.3%) were the most common ESBL producers, followed by Escherichia coli (15.4%), Proteus vulgaris (11.5%) and others. These resistant uropathogens showed highest sensitivity to Carbapenems and Cefaperazone sulbactam.

Conclusion: It is essential to report ESBL production in urinary isolates along with the routine susceptibility testing, which will help the clinicians in prescribing proper antibiotics. Rational prescribing of antibiotics should be encouraged through educational programs, surveillance and audit. Practice of proper infection control procedures will prevent horizontal transfer of drug-resistant organisms.

Questionnaire based study to judge significance of olfaction in general population
Varsha Venkataraman

Introduction: Olfaction appears to be significant in everyday life and the three main categories of function are those related to ingestion behavior, those related to avoidance of environmental hazards, and those related to social communication. Around 3.6% of random population are known to be functional anosmic, and around 18% have some level of olfactory disturbance. Various causes have been considered for these including head injury, aging, paranasal sinus disease, neoplasm, medications, toxic exposure, upper respiratory tract infection, surgical trauma, and congenital defects.Patients with olfactory disorders do report problems in daily life for example while eating, cooking, social situations, and have been reported to have high depression scores and reduced quality of life. Thus the aim of present study was to perform a questionnaire based study on general population to understand the how important is the sense of smell, and correlate in relation to age and gender in the Indian context.

Methods: Questionnaire(pre-validated) based survey study done over a period of 2 months from 1 August to 30 September; includes 200 subjects from Pune above the age of 18 yrs. with written informed consent. The questionnaire consists of 18 questions each having four scales: I totally agree(8-10 points), I mostly agree(5-7 pts), I mostly disagree(2-4 pts), I totally disagree(0-1 pt).There are three categories of questions with 6 questions each. These are of "Association"(emotions, memories and evaluation, that are triggered by the sense of smell), "Application"(how much the person uses the sense of smell in daily life), and Consequence"(conclusions

the person draws from the olfactory impression). For analysis, every response was scored and the average score for each question was calculated; they were further analysed based on age and gender.

Results: 200 patients out of which 93 were males and 107 were females.At 0-20y(13 male,16 female,total 29); at 21-40y(62 male,76 female,138 total); at 41-60y(18 male,15 female,33 total). Average response for each question was scaled accordingly. Further analysis by gender showed that all the 107 females had answered 'totally agree' to all the question of 'application' , 'association' and 'consequence'.

Conclusion: Olfaction is considered important sense for functioning in routine life. It plays role associative function, applications in daily life and in making and altering decisions in life. Women allot more significance to smell as compared to male, and the significance level remains same in all the age groups.

Diagnostic efficacy of nerve conduction parameters in cervical radiculopathy
Aditi Sudhakar Kashikar, Sachin Pawar

Introduction: Cervical radiculopathy(CR) is the dysfunction of a cervical spinal nerve, its roots or both mostly because of cervical spondylitis(70%).No universally accepted diagnostic criteria are established.Studies found patient's history, examination and radiological evaluation to be insufficient.This study evaluates the diagnostic utility of electrophysiological parameters in CR with aims to study the diagnostic efficacy of motor and sensory nerve conduction parameters in CR and to determine diagnostic efficacy of F wave in CR.

Methods: This is a cross-sectional study including 100 subjects, above 40 years of age, who are clinically diagnosed having CR referred to M.G.I.M.S, Sevagram from April to July, 2012.After documenting detailed history and clinical examination, the study was performed by RMS.EMG.EP.Mark II machine in the Clinical Neurophysiology Unit, Dept. of Physiology for the following.Motor Nerve Conduction Study by stimulating Median, Ulnar, Radial, Axillary, Musculocutaneus and Suprascapular nerves with electrodes on corresponding muscles to evaluate conduction velocity(CV), distal motor latency and compound muscle action potential(CMAP).Sensory conduction study of Median and Ulnar nerves to record sensory nerve action potential and CV.F wave study of motor nerves for F min latency.Statistical Analysis by SPSS 16.0.

Results: Motor Conduction showed CMAP was more sensitive(~70%) with high positive predicative value(~70%) and CV has greater specificity(63%). Proximal nerves have greater sensitivity and specificity.Sensory nerve conduction parameters have higher specificity(~85%).F min latency has highest sensitivity(~85%) and positive predictive value(67%) amongst all.

Conclusion: Motor nerve conduction studies and late response study are useful supportive diagnostic tools due to reliable sensitivity and specificity. CMAP is more sensitive as compared to DML and CV. F-minimum latency is more sensitive. Thus, these can be explored to be fine and economical diagnostic tools for CR.

Awareness and consequences of consanguineous marriages - a community based cross sectional study
Keshava Pavan K, Nitin Joseph, Keerthan Ganapathi, Apoorva P, Parul Sharma, Jai Aditya Jhamb

Introduction: Our research aimed to find out the level of awareness among women about consanguineous marriages and the various consequences of consanguineous marriages in the study area. Participants were included from semi-urban and rural population; Hindu, Muslim and Christian religions; and of different age groups.

Methods: Study design: cross sectional. Study setting: semi-urban and rural localities of Mangalore. Study period: January 2013. Study population: married women of the study area. Sampling method: convenient sampling. Sample size: 187. Institutional Ethics Committee clearance: obtained. Informed consent from study participants: obtained. Data collection: done by a self-administered, semi-structured questionnaire. Analysis method: SPSS vers. 17.0 and Chi Square test.

Results: Consanguineous marriages were found in 12.3% of the study population. The awareness level of the people on consequences of consanguineous marriages was poor (18.72%). 65.2% of the consanguineous marriages were between first cousins. Consanguineous marriages were found to be more in Muslim population. Significant association was found between consanguinity and health problems for the child (p = 0.02), along with growth retardation and low birth weight (p = 0.05). Consanguineously married couples gave significantly higher history of parental consanguinity than the non-consanguineous group.

Conclusion: The study showed that the awareness among public about consequences of consanguineous marriages is poor. Various disorders were found to be significantly high in children of those married consanguineously. It is necessary to implement programmes to increase their awareness about the subject.

Levels of oxidative stress and antioxidant status in diabetes mellitus patients

Janaswamy Vibhav Sri Narayana, Manohar, Rakesh Sahay, Vijay Kumar

Introduction: To evaluate the oxidative status of DM patients as oxidative stress is associated with development of various complications

Methods: Both IDDM and NIDDM patients with duration of DM >1 year without any end organ failure were recruited. Along with detail clinical history and systemic examination, specific investigations like glycosylated hemoglobin(HbA1c), oxidative stress indicators like plasma malondialdehyde (MDA) and protein carbonyl (PC) content and protective antioxidant sulfhydrel content(SH) were done .

Results: 74 NIDDM (mean age 57 yrs), 25 IDDM patients (mean age 32 yrs) and 25 controls were recruited. Mean duration of DM was > 99 months in both the groups. Average fasting blood sugar (FBS) was 144.7 mg/dl, 185.8 mg/dl in NIDDM & IDDM patients respectively. Elevated plasma MDA (> 1 nanomole/ml), PC (> 1 nmol/mg) and decreased SH levels (< 509 μmol/L) were noted in 17/74(22.97%), 48/74(64.9%), 62/74(83.7%) NIDDM and 16/25 (64%), 16/25(64%), 23/25(92.7%) IDDM patients respectively. Average MDA, PC and SH levels in NIDDM, IDDM and controls were 3.6±1.2 nanomole/ml, 3.95±1.2 nanomole/ml , 2.9±0.6 nanomole/ml ; 1.5±0.9 nmol/mg, 1.8±1.5 nmol/mg , 0.5±0.2 nmol/mg and 405±131.3 μmol/L, 365.9±109.5μmol/L , 539.3±56.9 μmol/L respectively. Plasma MDA, PC levels were elevated and SH levels were decreased in both NIDDM and IDDM patients in comparison with the control group which was statistically significant (p value =0.0001, 0.0003, p value= 0.0004, 0.004, p value = 0.002, 0.0007 respectively). There was no difference in the oxidative stress levels among NIDDM and IDDM groups. When

FBS was increasing there was a decrease in SH level in both the types of DM patients. There was no correlation of oxidative status with HbA1C or with duration of DM.

Conclusion: Increased levels of oxidative stress and decreased antioxidant capacity were noted in both the groups of DM. With increase in FBS there was a decrease in protective antioxidant SH levels.

Epidemiological survey of skin flora in hospitalised patients in a tertiary care center

KR Gindhusha, M Mithurshana, Karthikajayakumar

Introduction: The hospital environment is not only thronged by healthcare workers, patients and their attainders but also by microbial pathogens. The objective of this study was to analyse the bacterial flora in hospitalised patients in our hospital and interpret the incidence of nosocomial infections.

Methods: The specimens with sterile swabs were taken from cubital fossa, anterior nares, palms of consented patients and it was taken on zero day (i.e) the day of admission and on 2nd&5th day. Swabs will be collected by clinicians by sterile technique. Swabs are transported in Amies transport media to the microbiology laboratory & processed as per NCCLS procedure. Antibiotic sensitivity of all isolates was done. Patient distribution was, 28 General Medicine, 18 General Surgery, 8 OBG, 3 TB & Chest diseases, 2 Pediatrics, 1 Orthopaedics.

Results: The commonest organism is micrococci in palms and cubital fossa. In anterior nares, it had staphalococcus aureus, micrococci, streptococcus species and diphtheriods. Palms 60 micrococci, Cubital fossa 54 micrococci, 4 staphalococcus aureus, 2 aerobic spore bearers. Nasal swab 30 staphalococcus aureus, 20 micrococci, 2 streptococcus, 8 diphtheroids. All staphalococcus aureus isolated from these were methicillin sensitive. Micrococci were the commonest organism in the palm & cubital fossa which has been proved to a transient flora, not associated with any infections. Our study also reveals that the patient did not develop any healthcare associated infections & other iatrogenic infections. The absence of the transient flora, micrococci in the 5th day further augments the good infections control policies practised in our centre.

Conclusion: Periodical surveillance of hospital acquired infection among the inpatients is a must for evaluating the hospital guidelines of infection control policies & assesses the status of the health education programme and antibiotic policy & help the patient to have an infection free life.

Relationship between malaria and ABO blood group types in Mangalore, Karnataka, India

Sharana Hegde, Ruchi Sinha

Introduction: Malaria affects 1 billion people and results in 1-3 million deaths each year worldwide. P.falciparum causes more severe forms. A study found that patients with blood group O have reduced chances of developing severe falciparum malaria. Clinical severity, rather than incidence or prevalence of detectable parasitemia, is a more relevant outcome to assess ABO group and survival. There is a paucity of studies on the relationship between ABO blood group and its influence on malarial infection. Hence, this study has been planned to study the relationship of severity of malaria with blood groups and to evaluate if ABO blood groups show

differential susceptibility to P.falciparum malaria.

Methods: 200 malaria positive patients were considered. Patients who had atleast one of the following complications were considered complicated malaria cases: Cerebral malaria, severe anaemia-(haemoglobin<9 g/dl), circulatory collapse-(systolic blood pressure<80 mmHg in patients >5 years of age;< 50 mmHg in children aged 1-5 years), jaundice, hematuria, bleeding manifestations, acute respiratory distress syndrome and death.Blood group was tested. Data analysis was done by chi-square test and a p-value less than 0.05 was considered statistically significant.

Results: Majority(43%) were of blood group O.Distribution of blood groups in South India:O(38.75%), B(32.69%),A(18.85%), AB(5.27%).14.5% had falciparum malaria, rest vivax.73% were males, parasite load 3(+) formed majority(35%).No significant relationship between blood groups and type of infection(p=0.236) ,between parasite load and blood groups(p=0.851) and between complicated cases or multiple complication cases and parasite load(p=0.067).31% cases had complications and 12.9% of them multiple complications. Among complicated cases, O dominated (37.09%) followed by A(30.65%). Among uncomplicated, O dominated (45.65%) followed by A(28.99%). No significant relation between blood groups and distribution of complicated and uncomplicated cases(p=0.473) and between complicated falciparum cases and blood groups(p=0.126). A and O made 35 % each of the total number of mixed malaria cases. In A ,57.1% of the mixed malaria cases had complications,whereas in O only 14.3% had complications.There was a statistically significant relation between complicated mixed malaria cases and blood groups. (X2=15.131,p=0.019).

Conclusion: Blood group O was the dominant blood type in both complicated and uncomplicated malaria cases. Blood group A was more prone to severe mixed malaria infections while, blood group O had a favourable outcome.

Significance of CSF adenosine deaminase and C-reactive protein estimation in meningitis in adults
Ponnila T, Amudha VP, G Palaniappan N

Introduction: Rapid and accurate diagnosis of meningitis is important, because delay in proper treatment can be harmful or even fatal.The clinician must sort out the form of clinical presentation and make a specific etiological diagnosis with CSF analysis, Gram's staining, Ziehl-Neelsen staining, latex agglutination tests, bacteriological and tuberculosis culture, viral diagnostic tests and PCR, the basis on which selection of potentially effective antimicrobial therapy is predicted. Since each these techniques have their limitations, the search for more specific, sensitive, and rapid diagnostic methods continues. Combined use of the rapid screening tests like C Reactive Protein level and Adenosine Deaminase activity could be of much help in the differentiation of various types of meningitis in adults.

Methods: A total of 50 samples of CSF and Serum were collected from Patients attending in-patient departments of Tirunelveli medical college hospital with meningitis were taken for study. CSF ADA was estimated in all patients by colorimetric method of GALANTI and GIUSTI and C Reactive Protein in CSF was estimated based on latex agglutination.

Results: Out of 50 cases, 46% cases were Tuberculous Meningitis, 10% was of Pyogenic Meningitis and 44% was of viral Meningitis.TB meningitis occurred more in the younger age group and pyogenic meningitis was noted in the extremes of age group. The incidence

of tuberculous and pyogenic meningitis was more in males and viral meningitis was more in females. The range of ADA was between 1.2 to 15.4 U/L. ADA level in tuberculous meningitis was 10.4-15.4U/L with a mean level of 14.1 ± 1.96 (X ± SD) U/L.In pyogenic meningitis it was 3-10.1 U/L with a mean level of 4.92 ± 1.27 (X ± SD) U/L and in viral meningitis it was 1.2-4.9U/L with a mean level of 3.66 ±1.03 (X ± SD) U/L .At 10 U/L cut off value, sensitivity and specificity of the test for diagnosis of tuberculous meningitis was 95.65% and 96.29% respectively. CRP level in CSF was positive in all cases of pyogenic meningitis. All the 22 cases of viral meningitis and 23 cases of tuberculous meningitis showed a negative result for CRP.

Conclusion: Many patients are needlessly receiving antitubercular treatment and antibiotics in high doses on erroneous interpretation of CSF. The tests for ADA and CRP in CSF are simple and can be carried out in a central laboratory with a rapid diagnosis, thus reducing undue delay or initiation of unwarranted harmful therapy for patients.

Study of CYP17 gene polymorphism in fetal growth restriction with reference to organochlorine pesticide levels
Siddharth Chand, Mohammad Mustafa, BD Banerjee

Introduction: The cytochrome P-450c17alpha (CYP17) gene encodes the enzyme cytochrome P-450c17alpha, which functions in the estrogen synthesis pathway. The genetic variation in the maternal CYP17 gene polymorphism leads to differences in estrogen level which affects fetal growth and causes fetal growth restriction (FGR). Organochlorine pesticides (OCPs) are endocrine disruptors which alter the normal estrogen-progesterone balance and are reported to be associated with adverse reproductive outcomes. This study was designed to investigate the gene-environmental interaction between maternal and cord OCPs level, and maternal CYP17 gene polymorphism with risk of FGR.

Methods: Maternal and cord blood samples of 50 term FGR cases (birth weight <10th percentile for gestational age as per Lubchenco's growth chart) and equal number of normal pregnancies were collected. Women with occupational exposure to OCPs, anemia, hypertension, antiphospholipid antibody syndrome, medical disease, parity more than four, BMI < 19 or >26 kg/m2, history of smoking, alcohol consumption or chronic drug intake were excluded from both groups. The samples were collected at the time of delivery/after delivery and were analyzed for OCPs levels by Gas chromatography system equipped with electron capture detector and polymorphic analysis for CYP17 gene using PCR-RFLP.

Results: Significantly higher levels of α-HCH, ß-HCH, and γ-HCH were found in maternal blood and cord blood samples of FGR cases as compared to controls. The frequency of A1A2/A2A2 genotype was significantly lower (p=0.041, OR=0.421) in FGR cases as compared to controls.

Conclusion: Higher levels of OCPs and CYP17 homozygous A1/A1 in pregnant women may be considered as an important etiological factor in 'idiopathic' FGR. The present study provides evidence that genetic variation and environmental exposure may increase the risk of FGR. Further studies are needed with larger sample size, incorporating other gene polymorphism and environmental exposures to strengthen the observations obtained in the present study.

Clinicopathological spectrum of lupus nephritis correlating clinical variables with histomorphological features, immune-fluorescence in renal biopsies.

Anurag Danda, Sonia Badwal

Introduction: Lupus Nephritis (LN) is a significant cause of morbidity and mortality in patients of Systemic Lupus Erythematosus (SLE). Renal biopsy is crucial for histological categorization of LN and also for assessment of disease-activity and chronicity, thus guiding the treatment.This study seeks to correlate clinical variables of LN with histomorphological features and immune fluorescence in renal biopsies,thereby eliciting whole spectrum of the disease (Class & severity) and help in its precise diagnosis.

Methods: This is a cross-sectional study involving 30 patients of LN diagnosed as per ARA criteria, who underwent renal biopsy. Both archival and freshly diagnosed cases presenting to Nephrology department of a tertiary care hospital formed part of the study group. The clinical data was accrued from the requisition forms,ward and OPD register.Demographic,laboratory data along with management modalities undertaken with response to therapy were recorded. The renal biopsies were evaluated as per standard protocol and were classified according to ISN/RPN criteria for LN.Histological activity and chronicity indices were then correlated with clinical parameters.

Results: Mean age of study population was 26 ±SD 9.8 years with females outnumbering males.Mean age of diagnosis of SLE was 24.9 ±SD 8.7 years while mean years to onset of lupus nephritis 1.2 years±SD1.4 years.Acute Nephritic syndrome (66.6%) was the predominant clinical presentation while Class IV LN (73.33%) was the commonest histological pattern observed. Mean serum creatinine levels posttreatment of the patients with high activity index was 2.1 +/-SD 1.9 mg% which was significantly less than the serum creatinine at presentation. (t=5.2, P=0.0001,unpaired t test) while there was no significant difference in the mean creatinine levels at presentation (3.62 +- SD 0.58 mg/dl) and after treatment (3.08+-SD0.99 mg/dl) in patients with chronic histological features. t=1.89,P=0.107.No statistically correlation was observed between histological indices with clinical syndromes,C-Reactive protein,ANA, dsdna or complement levels.

Conclusion: There is no absolute clinical and lab parameter which predicts disease-activity & chronicity to direct management.Kidney biopsy is essential in establishing diagnosis and prognostication and should incorporate disease-activity & chronicity scores.Chronic cases tend toward bad clinical outcome due to irreversibility of histological lesion.Activity index represents reversible lesion and may not predict outcome but is valuable in cases with high scores which reflect more significant destruction,warranting more aggressive management. A study with larger sample size and longer follow-up is required to validate the results of this study.

A study on management practices of private medical practitioners in patients newly diagnosed with pulmonary tuberculosis

Ankita Bajpai, Vaman Kulkarni

Introduction: India accounts for about one-fifth of the global burden of TB. In spite of a significantly strengthened TB programme and the progress made, 50–80% of TB patients in India still seek care at private clinics and TB treatment offered in the private health sector remains substandard. Sub-optimal prescribing is one of the main causes of tuberculosis (TB) treatment failure and emergence of drug resistance. This study was conducted to address this issue along with some exploration on other factors like categorization of pulmonary tuberculosis patients and prevention of MDR-TB.

Methods: A cross sectional study of 112 private medical practitioners who were practicing allopathic medicine in the city of Mangalore was conducted. Respondents were selected using convenient sampling. A semi-structured questionnaire was used to collect the information. The data was analysed using SPSS Version 11.

Results: Only 58% of the subjects identified the correct definition of TB suspects. Regarding the knowledge about the definition of defaulter, only 13.4% identified the correct answer. About their opinion about DOTS strategy of RNTCP 70.5% responded positively while 29.5% said that it needs improvement. The MDR-TB definition was correctly identified by 86.6%, whereas only 47.7% identified the MDR-TB suspects. There was a significant association between various aspects of TB management and variables such as qualification, years of experience, age of the practitioners and patient load (p<0.05).

Conclusion: To conclude, we think that the number of regimens recommended by the various international/national professional bodies should be reduced to a minimum and that fixed-dose/ compliance kit formulations of different drug strength suitable for different weight ranges should be made widely available. These measures would lead to the desired changes in prescription of treatment for effective TB management and control. Besides Private General medical practitioners should be trained in the National TB Control Programme guidelines and public awareness should be raised to identify the main symptoms of pulmonary TB.

Evaluation of cytochrome P450 2C19 activity in normal, healthy, adult subjects in western Indian population

Harshavardhan N Sant, Urmila Thatte, Nithya Gogtay, Shital Bendkhale, Natasha Bala

Introduction: Polymorphism of CYP2C19 activity in Western Indian population has not yet been studied; hence the objective of the present study is to evaluate the polymorphism of CYP2C19 (Poor metabolizers and extensive metabolizers) in Western Indian population. This will be achieved by investigating the frequencies of CYP2C19*1, CYP2C19*2 and CYP2C19*3 alleles and CYP2C19 genotypes in a Western Indian population.

Methods: Ethics committee approval was taken and written informed consent obtained from all participants. A total of 144 consecutive subjects were studied. They were recruited from the medical and paramedical staff as well as the local population by word of mouth. A sample of 5 ml of EDTA anticoagulated blood was drawn from the participants. DNA was extracted by Phenol chloroform method. This was followed by Polymerase Chain Reaction and Restriction Fragment Length Polymorphism for the genotype of CYP2C19*2 and CYP2C19*3.

Results: The frequencies of CYP2C19*1 and *2 in Western Indian population were 0.638 [95% CI, 0.557, 0.713] and 0.361 (95% CI, 0.308, 0.418) respectively. No *3 alleles were found. The distribution of CYP2C19*1/*1, *1/*2 and *2/*2 genotypes was 0.395 (95% CI, 0.319, 0.477), 0.486 (95% CI, 0.405, 0.567), 0.118 (95% CI 0.063, 0.206) respectively.

Conclusion: *2 was the most frequently identified mutant allele in the Western Indian population. The frequency is similar to that of South Indian population but different from Caucasians and Africans.

The CYP2C19*1/*2 genotype is significantly higher in Western Indians when compared with populations of other countries. Notably, the CYP2C19*1/*3 genotype which has been identified in 2.7% of the Tamilian population, was not reported in the Western Indian population. This study is likely to provide useful baseline information on allele prevalence and may help practicing clinicians at a later date for individualizing drug therapy.

An epidemiological study assessing the factors causing delay in definitive diagnosis of cancer
Sanyukta Rajpurohit

Introduction: The problem of delay in diagnosing cancer as a result of late presentation by individuals, or through healthcare system inefficiency is currently the subject of close attention as part of a broader approach to reduce cancer mortalities, since it is seen to be important for prognosis. The aim of this study was to examine whether patients' psycho-socio-economic characteristics are predictors of long patient-, doctor- and system-related delay; identifying root causes for delay; analyzing the average time lapses involved in confirming diagnosis; and analyzing delay at the health practitioner level.

Methods: A group of 100 patients with different types and diagnostic stages of cancer at the RK Birla Cancer Centre of Sawai Man Singh Hospital, Jaipur was selected and in-depth interviews conducted with them and their family members. using a semi-structured questionnaire, after their Informed Consent. The data collected was organized in tabular form and retrospectively analyzed for various parameters, using MS Access, MS Excel and SPSS.

Results: The most common reason cited for delay was 'Lack of Awareness of Symptoms', followed by 'Misattribution' and 'Lack of good healthcare facilities' by respectively 92, 83 and 65 % of the patients. 79% of the women reported a delay of 30-60 days before first consultation. 89.5 % of the patients first consulted a GP, albeit at a village / small town. 7% considered alternative/ self-medication, while a minor 3.5 % went directly to a specialist. Delay of <10 days was seen between first visit to specialist and the time the recommended investigations were done. 98% patients were scheduled for chemotherapy/surgery with nil delay once diagnosis was confirmed.

Conclusion: Higher socio-economic and education level of the patient results in lesser delay. Women, children and elderly people were delayed more, possibly due to sociopsychological causes. Delay was more for rural patients than urban. Treatment-level delay was negligible.

Suicides and factors associated with suicides-a study in a rural setup of Puducherry in south India
Kangujam Anand Singh, Bharatwaj RS, Madhumitha M, Niranjana Devi N

Introduction: Of the half million people reported to die of suicide worldwide every year, 20% are Indians. In India, the southern states have a suicide rate of greater than 15 per 100,000 . At Pondicherry, we often hear of suicide reports from the local village of koodapakkam located within half a kilo-meter from our college and for which currently no statistics are available regarding suicide rates. So the present study aims to find the rate and identify risk factors associated with suicide in this area

Methods: After ethical approval a cross sectional study was done and Information of suicides in the last three years was collected by house to house survey in Koodapakkam village, using a pretested questionnaire, containing questions pertaining to socio-demographic factors, health etc. Details were collected by the trained interviewers from the relatives or close neighbours after obtaining informed consent. Information was later compiled and the percentages were obtained for comparison.

Results: The area has a total of 13 suicides and annual average suicide rate of 88.59/ 100,000 population. Majority of suicides were committed by married people 9 (69.2%). Commonest age category for suicide was 15-45 years 6(46.16%). The main reason for suicide was family problems leading to stress 9(78.84%).The commonest mode of suicide was by hanging 6(46.15%) and least by burning 3(23.07%). Only 3(23.07%) of them had ever visited a psychiatrist

Conclusion: The study area has suicide rate more than eight times the national average of 10.3. The profile of a person most likely to commit suicide emerges as ' A middle aged, married male, occupied as a labourer, with family problems leading to stress, who is likely to commit suicide, inside the house, by the method of hanging, during early morning or late night hours. There is an urgent need to address the issue of suicides in this area.

Screening for G6PD deficiency in blood donors
Swathi S Rao

Introduction: Glucose-6-phosphate dehydrogenase (G6PD) deficiency is the most common known inherited human enzyme disease, affecting 10% of the world population. In India the incidence of G6PD deficiency has been variably reported as 0-37% in different castes and communities. Severe manifestations of G6PD deficiency can be prevented if necessary precautions are taken, by screening for the enzyme deficiency in the asymptomatic population represented by healthy blood donors before transfusing their blood into recipients. The aim of this study was to determine the prevalence of the enzyme disorder in the study area and thence determine the need for a routine screening for it among the healthy blood donors in blood banks.

Methods: 100 healthy donor individuals (93 males and 7 females) in the age group of 18 – 49 years and of all the eight blood groups were screened for the deficiency in a period of 2 months, using the methemoglobin reductase method. The test consists of the oxidation of Hb to MethHb by Sodium nitrite and the subsequent enzymatic reconversion to Hb in the presence of Methylene blue by stimulation of the Pentose phosphate pathway and activation of Methaemoglobin reductase. Study design – Observational study, Sampling design – Purposive sampling. G6PD enzyme assay was done for confirmation of deficiency wherever possible. All the data collected in this study was analysed by computing descriptive statistics like mean, standard deviation and percentages.

Results: All the samples collected during the time of study tested negative for G6PD deficiency.

Conclusion: None of the samples tested positive for the enzyme deficiency, bringing us to the conclusion that screening for G6PD deficiency need not be added as a routine test in blood banks. Further studies with a larger no. of individuals from different geographical areas, castes and communities are needed to clearly determine the prevalence and necessity of routine screening for the enzyme deficiency.

Aerobic and anaerobic bacterial analysis in appendicitis

M Nishanthi, SV Priyanka, Karthikajayakumar

Introduction: There is no unifying hypothesis regarding the etiology of appendicitis. It may be due to faecolith, stricture, foreign body, bacterial infection, parasitic infestations, viral infection, carcinoma caecum near the base, etc. A mixed growth of aerobic & anaerobic organism is usual. Hence we want to analyze both aerobic and anaerobic microorganism in appendicitis.

Methods: 60 samples were collected in our hospital over a period of four months. Appendicectomy was done through open appendicectomy or laparoscopic appendicectomy. Under sterile condition the specimen was immediately transported to microbiology department in saline and thioglycolate broth separately, after obtaining the consent of the patient in regional language. Appendix from saline was subjected for culture to analyze aerobic organisms which was incubated for 48hours. For anaerobic organism the specimen from thioglycollate broth cultured in neomycin blood agar in gas pack for 48 hours and , if growth not seen further incubated. The aerobic & anaerobic organisms were further subjected for biochemical reactions and antibiotic sensitivity pattern as per CLSI GUIDELINES.

Results: Sixty specimens of appendix were collected from patients with age group ranging from 8 - 50 yrs. Male to Female ratio is 37:23. There was an incidence of 100% positivity in aerobic culture and 27% positivity in anaerobic culture. The bacterial isolates were: Escherichia coli-42%, Klebsiella pneumonia-17%, Proteus-12%,Citrobacter koseri-10%,Pseudomonas aeruginosa & Klebsiella oxytoca -7%,Acinetobacter -3%,Enterococcus-2%. Anaerobic isolates: Peptostreptococcus-15%, Bacteroides species-12%. The antibiotic sensitivity pattern was: Imipenum-100%, Gentamycin-95%, Ciprofloxacin-78%, Amikacin-67%, Cephotaxime-57%, Ceftazidime-33%, and Cotrimoxazole-30%. Males were more affected than females. The study shows more number of gram negative bacterial isolates which correlates with the fimbrial activity that establishes attachment and adhesion causing infection. The commonest cause of appendicitis, was E coli which accounts for 42%. There were 21 cases (35%) with mixed infections which again indicates the close association of bacterial proliferation within inflamed appendix.

Conclusion: Our study shows the presence of both these microbes with predominant aerobes (63%) and minimum anaerobic flora (27%). The commonest aerobic organism that is associated with appendicitis is E.coli and anaerobe is Peptostreptococcus.The antibiogram pattern showed a favorable high sensitivity towards the drugs which are effective against gram negative bacteria.

Assessment of the reactive hyperaemia through quantification of colour changes using pixel analysis software

Tanwi T

Introduction: A sound cardiovascular system is essential for human health. There are many effective tests to measure cardiac performance, but no matching test exists to detect vascular reactivity. Hence the acute need for a sensitive, non-invasive, cost-effective screening test especially as incidence and prevalence of Peripheral Vascular Diseases (PVD) as a complication of diabetes is increasing. Early detection of asymptomatic patients in primary care setting is the sole key to contain this modern pandemic. Most of the presently available investigations techniques do not cater to the above needs. The present study purports a simpler non-invasive method of assessing variation in blood flow by quantifying colour changes visible in palm secondary to reactive hyperaemia for detection of presence of vascular lesions.

Methods: Colour changes in palms of test and control hands were recorded in healthy young volunteers (5 males, 5 females) by taking a series of photographs at 5 seconds interval in pre, during and post occlusion periods. Sphygmomanometer was used to produce arterial occlusion in test hand. The colour changes were analysed for red pixels by indigenously developed colour analysis software "Chitradeepam". Mean of values for each hand in above-mentioned periods were calculated for all subjects and corresponding values of test and control hands were compared using student's t test.

Results: No difference was observed in baseline values of both hands. During occlusion, there was significant decrease in test hand colour in females compared to their control hand but not in males. Post occlusion, significant colour increase was observed in test hands of males compared to control. A similar trend, though statistically not significant was seen in females.

Conclusion: This technique can be useful in determining normal vascular response in healthy individuals through quantification of reactive hyperaemia which in turn can be a parameter to assess the decreased vascular response in Peripheral Vascular Disease.

Risk factor of type 2 diabetes mellitus among adolescent from rural area of Wardha district

Vani Mittal

Introduction: Diabetes Mellitus is a highly prevalent disease in India, which is responsible for many of its complications including hypertension, hyperlipidaemia, nephropathy, and retinopathy. Although the causes of type 2 diabetes are unknown, there are some key risk factors which includes various sociodemographic factors (gender, education, per capita income), behavioural risk factors (tobacco, alcohol, sedentary lifestyle, dietary factors and stress), physiological factors (weight, BMI, waist: hip ratio, BP, blood glucose, urine albumin and history of weight gain) and genetic factors owing to family history of DM. The study aimed at finding the prevalence of behavioural and physiological factors for type 2 DM and their association with sociodemographic factors and family history of TDM, among adolescence from rural area or wardha district, Maharashtra.

Methods: Our study was conducted in adopted village of Wardha including 202 participants of age group 10-19 yrs using systemic random sampling technique at 95% CI with the help of a structured interview schedule which including measuring various physiological parameters like Waist: Hip ratio, BMI, RBS, urine albumin.

Results: The results were presence of the various risk factors in the participants with predominance of sedentary lifestyle, high waist: hip ratio, obesity (high BMI), presence of urine albumin, high RBS, dietary factors (non vegetarians are at a higher risk than vegetarians), and a positive family history. Few other factors were alcohol intake, smoking, sociodemographic factors including gender, education and socioeconomic status. The awareness pattern was also studied among the adolescents of the rural area, showing predominance in girls. Awareness level was associated with students in higher classes as compares to primary school.

Conclusion: Hence, this study concluded that awareness need to be spread among the adolescents of rural area about the various risk

factors for type 2 Diabetes Mellitus and measures taken to prevent this metabolic disease as far as it is possible.

Clinical factors associated with mortality in Dengue infection in pediatric population at tertiary care center of Davangere, Karnataka

Naren Srinath Nallapeta, CR Banapurmath, S Mruthyunjaya, Shrujana Ambati Nagaraj, Sangam DK

Introduction: Dengue affects an estimated 50-100 million with 24,000 deaths occurring worldwide annually, of which 90% occur in children principally in the tropics and subtropics and mortality is on the rise. Our aim was to investigate the relationships between the clinical features associated with dengue infections in a tertiary care centre.

Methods: A retrospective analytical study was conducted in Bapuji Child Health Institute and Research Center, Davangere by reviewing the case records of children admitted and diagnosed clinically/ serologically of Dengue fever. Data was collected on a predesigned pretested form, which was analysed using SPSS version 16. Mortality was the primary outcome measure.

Results: The mortality rate was 2.9% (45). When comparing the demographics of those who survived (636) and those who died (45), significant differences were found with female sex (45% and 64.4%; p=0.01), and infants (9.6% and 26.7%; p=0.01). When comparing with those who survived, the clinical features significantly associated with mortality were convulsions (3.9% and 26.7%; p<0.05), hepatosplenomegaly (43.1% and 75.6%; p<0.001), shock(6.4% and 88.9%; p<0.001) and hemorrhage (14.8% and 33.3%; p=0.01). The mean white blood count in those who died was 12,883/cmm, in those who survived was 7,842, the difference being significant (p<0.001). When comparing with those who survived, the complications significantly associated with mortality were acute respiratory distress syndrome (7.9% and 60%; p<0.001), hepatitis (11.5% and 26.7%; p=0.024), encephalopathy (94.2% and 24.4%; p=0.002), disseminated intravascular coagulation (p=0.004) and pulmonary hemorrhage (p=0.001).

Conclusion: Dengue fever has a wide spectrum of clinical presentation. Infants and female sex are at higher risk of mortality. Clinical features like convulsions, hepatosplenmegaly, shock, hemorrhage and complications such as acute respiratory distress syndrome, hepatitis, encephalopathy, disseminated intravascular coagulation and pulmonary hemorrhage were associated with mortality in children with dengue viral infection. We recommend children with dengue infections with such predictors of mortality on presentation warrant management in high dependency units.

Use of adenosine deaminase as a rapid diagnostic tool for tuberculous pleural effusion

Jerinevanjelin F, Amudha VP, G Palaniappan N

Introduction: Tuberculosis is a common cause of pleural effusion. Conventional methods like tuberculin test, pleural fluid biochemistry, and direct examination for AFB have proven to be insufficient for diagnoses of pleural TB. Because of the non-availability of tests like pleural fluid culture, pleural biopsy, ELISA, PCR & Interferon in all centres, the confirmation is difficult. Pleural fluid Adenosine deaminase levels in TB effusion are significantly higher and it is considered as a pleural fluid marker for tuberculosis.

Methods: After approval by the institutional ethical committee

pleural fluid and serum was collected from 50 adult patients with clinical and/or radiological evidence of pleural effusion. The samples were analysed for protein, sugar, LDH, cholesterol, albumin, total cell count, differential cell count, Gram stain and Ziehl Neelson staining. Pleural fluid ADA was estimated by colorimetric method of GALANTI and GIUSTI. An accurate diagnosis of transudate versus exudate was made using Light's criteria. Statistical analysis was done by 't' test and two sided chi test.

Results: Males constituted 32 and females 18 cases. The range of ADA was between 5 to 162 U/L with a mean ADA value of 54.5 U/L. ADA level in tuberculous pleural effusion was 40.4 - 162 U/L with a mean level of 88 ± 38.91 U/L while in non-tuberculous pleural effusion it was 4.6 – 38 U/L with a mean level of 21 ± 10.85 U/L. The cut off value of ADA for diagnosing tuberculous pleural effusion in our laboratory was >40 U/Twenty eight out of 29 patients with tuberculous effusion had pleural fluid ADA level > 40 U/L and one had pleural fluid level < 40 U/L.Twenty out of 21 patients with non tuberculous effusion had pleural fluid ADA level < 40 U/L and one had pleural fluid ADA level > 40 U/L. The Sensitivity , Specificity ,Positive Predictive Value and Negative Predictive Value of ADA test for diagnosis of tuberculous pleural effusion was 96.6% , 95.2%, 96.6% and 95.2% respectively. All cases of tuberculous pleural effusion had L/N ratio > 0.75. Of the ten cases with nontuberculous exudative pleural effusion, ADA was < 40 U/L in nine cases and L/N ratio was < 0.75 in all ten cases.

Conclusion: ADA estimation is a sensitive and specific test, helpful in differentiating tubercular from non-tubercular etiology in pleural effusion. The combined use of ADA and L/N ratio in exudative effusions increases the specificity of ADA.

Hanta and Dengue seropositivity in febrile patients
Swarjith Nimmakayal

Introduction: RESEARCH QUESTION:prevelence of dengue and hanta virus in febrile patients im mysore.aim:The main aim of this study is to find out the seropositivity of hanta virus and dengue fever IgM/IgG by SD rapid test (ICT) kit and dengue duo Immunochromatographic test (ICT) respectively in Adult patients presenting with acute febrile illness

Methods: Adult patients presenting with acute febrile illness.about 80 patients with acute febrile illness and with 20 healthy individuals will be taken as controls.The serum sample is tested for Dengue NS1 antigen, Dengue IgG /IgM antibodies by ICT kit . The same sample is also tested for hanta viruses IgM/IgG antibodies by ICT kit.

Results: A total of 100 samples were studied of which 80 formed the cases group who are febrile with thrombocytopenia and 20 formed the control group who were healthy.out of 21 positive dengue cases 10 were dengue ns1 antigen positive 4 were dengue igm antibody positive 4 were dengue Igg antibody positive 1 case showed both igm antibody and ns1 antigen seropositivity and 2 cases showed both igm and igg antibodies positive.

Conclusion: ICT helps in rapid diagnosis of dengue and hanta virus infection and also reduces the mortality and morbidity and low platelet count is associated with complications of dengue fever.

Occurrence of ESBL and MBL in clinical isolates of Pseudomonas aeruginosa– an emerging threat to clinical therapeutics

Vignesh G, Velvizhi G, Palaniappan N

Introduction: Pseudomonas aeruginosa is an opportunistic pathogen with innate resistance to many antibiotics and disinfectants. In addition to the intrinsic resistance of P. aeruginosa, it also produces the enzymes, namely β-lactamases and MBLs (Metallo β-lactamases) and their continued spread is going to be a major therapeutic challenge. Hence, the present study was undertaken to detect the Extended Spectrum β Lactamases (ESBL) and Metallo β Lactamases (MBL) in isolates of Pseudomonas aeruginosa which were isolated from wound infections and to evaluate their susceptibility patterns.

Methods: One hundred isolates of P.aeruginosa were analyzed to study their sensitivity patterns. The presence of the ESBL enzyme was detected by the phenotypic confirmatory test and the MBL enzyme was detected by the Imipenem – EDTA Double Disk Synergy test and Modified Hodge test.

Results: Out of 100 samples which were cultured, 26[26 %] yielded the growth of Pseudomonas aeruginosa. The resistance pattern of P. aeruginosa was noted as follows, Amikacin-15(58%), Gentamicin-15(58%), Ciprofloxacin-14(54%), Cotri¬moxozole-13(50%), Ceftazidime-12(46%), Imipenem-6(23%) and Meropenem-6 (23%). Among the 26 Pseudomonas aeruginosa isolates, 8 [30.76%] were ESBL producers and 4[15.4%] isolates were metallo β lactamase producers. The modified Hodge test detected 2 strains as metallo-β-lactamase producers (MBL).The EDTA disc synergy test detected the same 2 strains as well as an additional two strains as MBL producers. None of the isolates showed the coexistence of ESBL and MBL. All the ESBL producing isolates were sensitive to Imipenem, while the MBL producing isolates showed widespread resistance to Aminoglycosides, Ciprofloxacin and the Piperacillin with Tazobactam combination

Conclusion: The present study underlines the unique problem that the presence of ESBL and MBL mediated resistance in Pseudomonas aeruginosa has created a therapeutic challenge for the clinicians and microbiologists. Hence, we suggest that the detection of ESBL and MBL in Pseudomonas aeruginosa should be a routine practice in the hospital.

Detection of high level aminoglycoside resistance and vancomycin resistance in Enterococcus isolates from laboratory samples in Mangalore, Karnataka
Vadanya Shrivastava, Shrikala Baliga

Introduction: Enterococci are an increasing cause of nosocomial infections due to their resistance intrinsic resistance to aminoglycoside and most beta-lactam antibiotics.High level Aminoglycoside resistant (HLAR) enterococci are usuallydefined as minimum inhibitory concentration of aminoglycoside for the isolate >2000μg/ml. In this study we aimed to study the pattern of High-level Aminoglycoside Resistance and Vancomycin resistance among clinical isolates from a tertiary health care centre in Mangalore.

Methods: All enterococci isolated from exudates, urine and blood in the microbiology laboratory of a tertiary care Hospital in Mangalore for a period of 2 monthswere included in the study.Enterococci were identified asE.faecium or E.faecalis by standard microbiological techniques.Each isolate was tested for High level Aminoglycoside resistance (HLAR) by standard Disk-diffusion method using 120μg gentamicin disc and 300μg streptomycin disc and interpreted as per CLSI guidelines.The isolates weretested for Vancomycin resistance by E-testusing according to CLSI guidelines. Relevant case histories including risk factors were taken.

Results: Out of 93 isolates, 80.6% were E.faecalis and 19.4% were

E.faecium. 45.2% isolates showed HLAR(40% E.faecalis and 66.6% E.faecium). Only one isolate of E. feacium showed Vancomycin resistance. 56% of the patients with enterococcal infections had Diabetes mellitus. 35.5% were polymicrobial out of which 43.4% were from exudate samples. Co-infections with E.coli or Klebsiellaspp were the most common.

Conclusion: The study shows an increase in High Level Aminoglycoside resistance and the emergence of Vancomycin resistance. Gentamicin is widely used to treat serious enterococcal infections and injudicious administration can lead to an increase in resistance and hence routine screening for HLAR is mandatory. Emergence of vancomycin resistance anticipates its spread and warrants caution and surveillance during treatment.

Neurocognitive dysfunction among asymptomatic hiv positive patients using international HIV dementia scale
Shivani Priyadarshni, Basavaprabhu A, Unnikrishanan B

Introduction: A variety of neurocognitive disorders may develop in HIV patients at any point of time during infection whether otherwise symptomatic or not. Cognitive impairment may impact medication adherence which will be ultimately affecting morbidity and mortality. Hence this study was undertaken to evaluate the neurocognitive disorder among asymptomatic HIV positive patients.

Methods: This cross sectional, prospective study was conducted in a tertiary care hospital attached to a medical college that caters to a large number of HIV positive patients. The study population for this analysis included asymptomatic HIV positive patients belonging to WHO staging 1 or 2, only were included in the study. Data collection was done using a pretested standard questionnaire, the International HIV Dementia scale.

Results: Out of the 101 patients studied, 69(68.3%) were males and 32(31.7%) were females. Among these patients, 88 (87.1%) were receiving antiretroviral therapy (ART), 84 (83.2%) were in WHO stage 1 and 17(16.8%) were in WHO stage 2. Around 91 (90.1%) of patients had HAND and the remaining 10 (9.9%) did not have HAND. There were statistically significant differences in the gender and educational level between patients with or without HIV associated neurological dysfunction (HAND). As the WHO staging advanced from 1 to 2 there was an increase in the percentage of patients having HAND from 89.3% to 94.1%. Also as the age advances, percentage of patients having HAND also increased.

Conclusion: There was high prevalence of HIV associated neurocognitive dysfunction among asymptomatic HIV positive individuals despite receiving antiretroviral therapy. Also there was an increase in HIV associated neurocognitive dysfunction with advance in age and WHO stage of the disease.

Correlation between degree of thrombocytopenia and severity of bleeding in dengue infection
Kumudumalie Perera

Introduction: Thrombocytopenia is a common feature in dengue infection. Many times platelets are transfused not based on medical rationale but due to fear of the complications that can arise if bleeding occurs. The aim is to find if there is a correlation between thrombocytopenia and severity of bleeding to avoid platelet transfusions which are unnecessary and potentially dangerous. As a

result unnecessary costs of platelet transfusion can be curtailed and the cost of treatment can be cutback.

Methods: This prospective study was conducted in KMC hospitals, Mangalore from July to August 2012 with a total of 50 patients. The data was taken and analyzed using SPSS (statistical package for social sciences) version 11.5. Chi squared test was used for finding significance. P value < 0.05 was taken as significant.

Results: Severe bleeding was recorded in 16% of the patients which included haemetemesis, malaena, and intracranial bleed. These patients had a platelet count less than 20,000. However 1 patient had a fatal pontine bleed with a platelet count of 85,000. Minor bleeding such as epistaxis and petechiae were seen in 25% of the patients with platelet count between 50,000 and one lakh. 4 patients with platelet count between 50,000 and 1 lakh received platelet transfusion. In 5 patients, platelets were given after the onset of bleeding. 10 patients received prophylactic platelet transfusion for platelet count less than 50,000. Dengue encephalitis, pontine haemorrhage and multi organ dysfunction resulted in 4 deaths in the hospital.

Conclusion: The study showed that there was no correlation between thrombocytopenia and risk of bleeding. Even in patients with platelet count greater than 50,000 fatal pontine haemorrhage was seen. The role of platelet transfusion also did not have any significance in preventing bleeding manifestations. However our study has shown that the duration of hospital stay has been considerably reduced by giving platelet transfusion.

Relation between lung function and red cell distribution width in a population based study
Tejashvee Teresa

Introduction: Pulmonary function is dependent on nutritional status. Since an increased RBC distribution width (RDW) has been associated with nutritional deficiencies, we postulated that RDW has an inverse relation to pulmonary function. The purpose of this study was to test this hypothesis.

Methods: A cross-sectional study was conducted of a random sample of patients attending the out patient department of chettinad health city, Kelambakkam. A total of 200 subjects of both genders who were aged 20 to 70 years and were free of respiratory disease and no history of smoking. Pulmonary function test - FEV1, FVC, % FEV1, %FVC using a spirometer; Height, body weight; Hemoglobin concentration and hematologic indices like MCV, MCH, MCHC and RDW were done using an automated haematological analyser.

Results: We found an inverse relation between FEV1 and FVC with RDW.

Conclusion: Based on the results from this study, these are the conclusions: There is a weak but significant negative correlation between RDW and lung function(FEV1 & FVC). There is a weak positive correlation between Haemoglobin and lung function. (FEV1 & FVC). There is a weak but significant negative correlation between Haemoglobin and RDW. Even though there is a weak negative correlation of RDW with lung function probably a larger study sample size with adjustments for the other confounding factors may be required for the establishment of RDW as a biomarker of lung function.

A study of the correlation of expiratory muscle strength with spirometric lung functions in healthy Indian adults
S Chatterjee, A Chawla

Introduction: An important variable that affects spirometric lung function is expiratory muscle strength. This study was done to determine if a demonstrable correlation exists between expiratory muscle strength, as measured with a modified mercury sphygmomanometer and certain lung function parameters as measured by spirometer.

Methods: The study was conducted on 40 randomly selected healthy non-smoking male and female subjects in the age group of 18-25 years. Spirometry was performed as per the guidelines of the American Thoracic Society and European Respiratory Society and the following parameters were recorded-FVC,FEV1,FEF 0.2-1.2,PEFR,MVV. A standard mercury sphygmomanometer was modified for recording the maximum expiratory pressure. Subjects were instructed to blow into a modified mouth piece attached to the sphygmomanometer tube with maximum force and to hold it at that level for maximum amount of time possible. The following readings were noted: maximum pressure attained during the forced expiration and time, in seconds, for which maximum pressure was held.

Results: Male subjects generated significantly higher maximum expiratory pressures than female subjects (p=0.0001).The maximum expiratory pressure showed significant correlation with anthropometric variables and spirometric lung functions for the study population. However no significant correlation was seen when data for male and female subjects was analysed separately.

Conclusion: Maximum expiratory pressure (MEP), measured using a modified mercury sphygmomanometer, is positively correlated with anthropometric variables of height and weight. The MEP is significantly correlated with parameters of lung function in the form of FVC, FEV1 and FEF 0.2-1.2. This simple test may provide an objective assessment of functional work capacity in patients with lung disease. There is a need to define population norms and reference values for the MEP in Indians.

Haematological and biochemical profile of complicated malaria
Madhav Kumar Kedia, Chandrashekhar Mohapatro

Introduction: Malaria is a major health problem in india being one of the biggest burdens in terms of mortalitiy and morbidity among all infectious diseases.Severe malaria is defined as per by the working group of world health organization1Presence of one or more following criteria along with the asexual parasetemia defines severe malaria.Cerebral malaria,anaemia,parasetemia >100000/μl,renal failure,acute respiratory distress syndrome ,Hypoglycemia,hypotension shock,bleeding,convulsion,acidosis,haemoglobinuria. The biochemical risk factors associated are hypoglycemia,acidosis,elevated serum creatinine,elevated total bilirubin,elevated liver enzymes and haematological risk factors-leucocytosis,severe anaemia,coagulopathy.as there is a greatendemism of this disease in Orissa,so The aim of our study is that it is an analysis of parameters which have a poor prognostic indication which will help in early diagnosis,treatment,prevention

Methods: Laboratory analysis of the diagnosed cases of complicated malaria admitted in the departmentof medicine and pediatrics in S.C.B Medical College,cuttack.during ythe period of may 1 to june 30.For Haematological profile testto be done are Hb%,diffrential

counting,total leucocyte count ,total platlet count,Erytrocyte sedimentation rate.Peripheral smear for morphological changes in rbc.For Biochemical profile test to be done are- liver function test (total and direct bilirubin and liver enyme estimation); and kidney function test- serum urea, creatinine. Sample size- 132.

Results: The complications in adult poppulation arecerebral malaria in 31.4%,acute renal faliure in 19.4%,hepatopathy12.2%,in paeditric cases cerebral malaria in 50%,acute renal faliure in 11.9%,hepatopathy in 11.9%.Haematoogical observation leucocytosis 36.5%,anaemia 28.6%,increased E.S.R 66.3%,decreased platelet 59.2%in adults leucocytosis 26.4%,anaemia 41.4%,increased E.S.R 56.8% decreased platelet 55.9%in paediatrics.Biochemical observation raised,total biliruin 59%,direct bilirubin 43%,liver enzymes58.9%,serum urea 82%,serum creatinine 59% in adults,total biliruin 32%,direct bilirubin 23%,liver enzymes 20%,serum urea 18%,serum creatinine 23% in paediatrics,hypoglcemia in 80% adults and 74% paediatrics.

Conclusion: Puropose is to study the effect on haematological and biochemical parameter and to have comparative study of complication between p.falciparum and p.vivax,moreover while studying various types of complications frequency of changes of various biochemical and haematological parameter that commonly encountered will be noted.By analysing the parameter having poor prognosisit would be helpful in diagnosis and treatment which would be helpful in saving life of patient.

Drugs during pregnancy: prescription pattern, prior self- medication and teratogenic risk categorization of the drugs among pregnant inpatients
Mohammed Omar Farooq, Suneel Kumar Reddy

Introduction: Drug exposure during pregnancy is necessary for treating pre-existing conditions, for managing medical problems that develop during pregnancy as well as for pregnancy related complications. Drug exposure may also have occurred due by self-medication with over the counter (OTC) drugs. Drug exposure during pregnancy is important because of the risk of teratogenicity. Clinical trials are rarely done on pregnant women for ethical and regulatory reasons. Prescription pattern studies help to identify current drug prescribing practices, perform comparisons, provide feedback to prescribers etc.

Methods: The study was conducted over a 2 month period among the pregnant inpatients in Department of Obstetrics and Gynaecology, JJM Medical College after obtaining ethical clearance. Data was obtained from the case-sheets and interviewing the patients. The prescriptions were analysed for different classes of drugs prescribed and their FDA pregnancy risk categories. The DU90% methodology was applied for quantitive analysis.

Results: The mean number of drugs prescribed were 4.5 and 4.7 in the second and third trimester.90% of the prescriptions fell under seven pharmacological groups:Pregnancy supplements (Iron, Folic acid, Calcium and Vitamins C and B complex), Antimicrobials, Antihypertensives, Drugs acting on Gastrointestinal tract(Antiemetic, antacids, antidiarrheals), NSAIDs, Drugs Acting on the CNS(Opioids, Benzodiazepines, Anticonvulsants), Antihelminthics. The most widely prescribed drugs were supplements like vitamins, calcium and iron constituting 34.6%, followed by antibiotics and anti-hypertensive drugs. Self-medication was less than <1% among the pregnant women. The largest number of prescriptions fell into FDA Risk Category B(40%) followed by C(27%) and D(24%).

Conclusion: High extent of prescribing pregnancy supplements is warranted as there is evidence of beneficial maternal and foetal effects. The level of drug exposure during pregnancy by self-medication is low. The use of FDA Category D drugs in this study was higher but is rational taking into consideration the serious nature of illnesses that required admission.

Prevalence of prediabetes in students of a medical college in central India
Priyanka Mondal, Bharati Ganvir

Introduction: According to a study conducted by ICMR-INDIAB the projections for the whole of India would be 62.4 million people with diabetes & 77.7 million people with prediabetes. Pre-diabetes is a condition where blood glucose levels are higher than normal but not high enough to be called diabetes therefore it is a stage prior to clinical diabetes. The main risk factors for developing prediabetes are parental diabetes, pubertal stage and extreme obesity. Screening for prediabetes seems meaningful in subjects with either a parental history of diabetes or both with parental history and obesity. We aim to find the prevalence of prediabetes in the students of a medical college to recognize such students who are at risk of developing diabetes in their later years.

Methods: Prospective community based observational study was carried out in a tertiary care hospital on 200 medical students in a duration of 2 months. According to a pre-formed proforma, information was taken & blood glucose was estimated in fasting and post-meal state.

Results: According to Fasting blood glucose estimation, 27% students were prediabetic and only 1% students were diabetic. According to Post-meal blood sugar estimation, surprisingly no one was in the prediabetic range and only 1% students were diabetic. According to relation of family history with prediabetes, 37% students had positive family history for diabetes out of which 59.5% were prediabetic, 77% students had negative family history out of which 8% students were prediabetic and 1% were diabetic.

Conclusion: Among the 200 participants 27% were found to be prediabetic out of which 64% were females and 36% were males. Out of 64% prediabetic females 23% had waste hip ratio above cut off value. Among 200 participants 37% had positive family history for diabetes out of which 59.5% were prediabetic.

Alert-normal values of IgG4 In healthy Indian adults found higher than the previous reports
R Pratheesh Chandran, George Kurian

Introduction: IgG4 is reported to be increased in certain autoimmune conditions such as auto immune pancreatitis. It is not clear if it is merely a marker of the disease or if it is involved in the pathogenesis. Normal serum values of IgG4 have not been estimated in Indians. This is critical if IgG4 levels have to be used as a diagnostic criterion in diseases such as autoimmune hepatitis, pancreatitis and cholangitis. Purpose of this study is to establish the normal levels of IgG4 among healthy Indian adults.

Methods: Normal levels of IgG4 in healthy Indian adults were measured using nephelometric methods. This was done by collecting blood samples from healthy solicited staff and students of our institution and volunteers from two villages near Pondicherry. Sample was collected after obtaining an informed consent. The normal levels were determined using 49 samples(samples collected

50 and one lost in transit). These samples were age stratified 21-30 years,31-40 years ,41-50 years,51-60 years ,61 years and above each having equal number of males and females except in one group where the sample was lost. Inclusion criteria: healthy individuals not suffering from any diseases. Including common conditions such as asthma, diabetes, hypertension and heart diseases.Exclusion criteria: People with a history of chronic diseases like diabetes, hypertension, asthma and thyroid diseases will be excluded because there is a likelihood of autoimmune diseases occurring together with the diseases said above. It is a crossectional study and study was undertaken in the months of august and September 2012 . the ethical clearance was obtained on 25/4/2012.

Results: The range of values for the whole group was between80.70mg/L to 5594.60mg/L. Then for males it is between 154.80mg/L and 5594.60mg/L and for females between 80.70mg/L and 3565.10mg/L respectively.

Conclusion: The range of IgG4 levels in normal Indian population is 154.80 mg/L to 5594.60 mg/L. There appears to be a gender difference in these levels and no urban and rural differences and no differences noted between different age groups. The upper limit of normal in Indian population is 5594.60 mg/L. This is higher than the upper limit cutoff quoted by Morselli and Labate(1350mg/L).

Giant cell arteritis of aorta with aortic dissection and superimposed complicated atheromatous plaque-an unusual case

Farook Majeed, Meenakshi Bamalwa, Syed Nazeer Mahmood, Anuradha CK Rao

Introduction: Giant cell arteritis is a granulomatous systemic vasculitis of unknown etiology and is the most common form of systemic vasculitis in patients above 50 years of age. It usually involves medium sized arteries causing conditions like temporal arteritis but can involve the large vessels in upto 27% of cases. Aortic involvement can remain asymptomatic for many years thereby increasing the incidence of aortic aneurysms and dissections. Aortic dissection/Aneurysms occur in around 18% of cases with large artery involvement. Case Report- A 68 year old male patient presented to the OPD with sudden onset chest pain radiating to the back. Diagnosed clinically to be in cardiogenic shock, an echocardiogram detected aortic dissection. The patient was operated upon with grafting and insertion of AV prosthesis. Histopathological examination of the resected segment of aorta revealed endothelial hyperplasia, inflammation, intimal atheromatous plaque, medial cystic change, calcification with granulomas and giant cells in outer media and transmural inflammation. It was diagnosed as a case of Giant cell arteritis of Aorta with Aortic dissection and superimposed complicated atheromatous plaque.

Methods: Histopathological Examination of the resected segment was done.

Results: Histopathological examination of the resected segment of aorta revealed endothelial hyperplasia, inflammation, intimal atheromatous plaque, medial cystic change, calcification with granulomas and giant cells in outer media and transmural inflammation.

Conclusion: Giant cell arteritis of Aorta when associated with aortic dissection is a medical emergency thus owing to the low mean survival rate in such patients. A superimposed atheromatous plaque futher enhances chances of dissection, on an already weakened media and intima. Histo-pathological examination assumes an integral role in confirming the diagnosis, besides establishing the cause of dissection in some cases. It further enables clinicians to take adequate measures, in view of the chances of other complications secondary to the vasculitis affecting other branches of the aorta, hence reducing the complications and thereby decreasing morbidity and mortality.

Frog as an experimental animal to evaluate analgesic activity of drugs

Harshata Harti, Prabhakar Patil

Introduction: Many animals and methods are used for evaluating analgesic activity of a test substance e.g. rats , mice,dogs and monkeys.Different species of frogs had been used by many researchers for evaluation of analgesic drugs e.g Rana pipiens and African Claw frog . In our study we used RanaTigrina (Indian bull frog) which was never used for evaluation of analgesic activity of drugs. So by doing this project we judged usefulness of RanaTigrina to evaluate analgesic drugs.

Methods: Animals used were Rana Tigrina of either sex weighing 100-150 grams.Glass flask with porous platform was used for observation of frog. Drugs were be procured from pharmacy in Navodaya Hospital. The frogs were divided into seven groups (each group containing 6 frogs). Group I control (distilled water S.C.), Group II(Buprenorphine S.C.), Group III (Pentazocin S.C.),Group IV (Fentanyl S.C.),Group V (Piroxicam S.C.), Group VI (Diclophenac sodium S.C.),Group VII (Ketoprofen S.C.). All groups were treated with 4% NaCl solution S.C. on abdomen). Characteristic parameter i.e. number of eye blinkings (This parameter was observed during pilot study after 4% NaCl S.C. injection on lower third of frogs abdominal wall) were observed before and after drug administration. Each observation was for 5 minutes. Same procedure was repeated weekly for four weeks to check the reproducibility of this experiment.

Results: Buprenorphine, pentazocine and fentanyl inhibit rise in number of eye blinkings. Buprenorphine inhibits the rise very significantly. Piroxicam diclofenac sodium and ketoprofen decreased rise in number of blinks but it was not significant as compared to control.

Conclusion: This animal may be used as cost effective alternative to existing methods of evaluating analgesics in Indian setup.

Gender difference in hand grip strength and electromyogram (EMG) changes in upper limb

Swetha Rajkumar, Manjunath Hemberal

Introduction: Hand grip strength is a reliable measurement when standardized methods and calibrated equipment are used. Longitudinal studies suggest that poor grip strength is predictive of increased mortality from cardiovascular disease and from cancer in men. Endurance time during sustained submaximal isometric handgrip exercise is dependent upon the intensity of the effort. This intensity of effort in turn depends on the IEMG. The aim was to compare the hand grip strength, the time to task failure during sustained submaximal isometric handgrip exercise and the EMG changes between males and females.

Methods: A total of 60 participants were recruited: 30 males and 30 females (mean (SD) age, 18.66±0.92). Grip strength was measured with a computerized Hand Dynamometer and subjects performed sustained submaximal contractions of the right handgrip

at two different intensities: 30% and 75% of the pretrial maximum voluntary contraction (MVC). EMG was sampled in 1-s epochs every 15 s during the contractions and the integrated EMG (IEMG) values were normalized to that of the pretrial MVC.

Results: There was a significant difference in hand grip strength with males (367.97±80.51N) having greater values than females (174.24±55.36N) p<0.05. But women performed consistently longer than men at each of the two intensities [woman vs men; 174.51±82.93 vs 157.43±80.31 s for 30% MVC p>0.05 and 50.79±24.33 vs 38.86±11.63s for 75% MVC p<0.05]. Females had greater IEMG (51.65±24.13% at 30% MVC and 92.17±26.44% at 75% MVC) than males (40.00±16.77% at 30% MVC and 71.30±26.89% at 75% MVC) p<0.05.

Conclusion: Males have greater hand grip strength but females have longer time to fatigue and higher IEMG during sustained submaximal contractions owing to the differences in blood supply to the muscle, in type of fibres that constitute the muscle, the central drive and the proportionality of IEMG to the intensity of effort which influences the endurance.

Knowledge, attitude and self-medication practices of outpatients towards over-the-counter drugs

Khushboo Kanwal, Darpan Kaur, Shaunak Ajinkya, Rakesh Ghildiyal

Introduction: The growing trend of self-medication is due to easy availability of drugs, extensive advertisement, poverty, or inadequate health services. Inappropriate use of drugs could lead to problems like antimicrobial drug resistance, increased load of morbidity, mortality and economic loss. Currently, little information is available about self medication practices in developing countries. This study was undertaken to assess the knowledge, attitudes and self medication practices of patients using OTC drugs.

Methods: Open label cross sectional survey. Patients attending OPD at MGM Medical College, Navi-Mumbai were provided information about the study. Data was collected from patients who fulfilled the eligibility criteria and were willing to participate during July-August 2012. Sample size calculated apriori was 330. Institutional Ethics clearance was obtained. Materials and measures were a predesigned data collection form, informed consent document, pre validated and reliable self rated questionnaires comprising of Knowledge, attitude and practices of self-medication by Taipei University and Questionnaire on Reasons, Indications and Source of information by Balamurugan and Ganesh. Data was analysed using descriptive, chi-square and correlation tests with SPSS 17.

Results: Prevalence of self medication practices was 32.67%; significantly more common in males (p=0.035). Most common reason for self medicating was minor illness (40%). Most common source of information and indication were prescription of previous illness (44%) and headache (33%) respectively. Correlation analysis between Knowledge of drug safety and Self medication practices was significantly positive (+0.144; p=0.004). Knowledge of drug safety and Attitude towards medical consultation with pharmacists had a significantly negative (-0.148; p=0.004) correlation.

Conclusion: Patterns that emerged significant in self medication practices were male patients, minor illness, headache and prescription of previous illness. Overall, knowledge of medical outpatients was average however their attitudes towards pharmacist consultation were less favourable. Further research may be directed towards improving existing lacunae and planning appropriate interventions.

Post-induction morbidity in children (age 1 to 18 years) treated for acute lymphoblastic leukemia: a retrospective cohort study

Shruti Khurana, Bhavna Dhingra

Introduction: ALL, (Incidence- 3-4 cases/100,000 children) is the single most common malignancy in children. Although, the cure rates have improved substantially, India has not kept pace with the > 80% survival outcome in developed countries. After the initial induction phase, the myelosuppressed child may suffer from several infection related morbidities and mortalities. There has been no systematic analysis available in the literature from India addressing these problems which may even require hospitalization, intensive treatment and may cause delay in the scheduled chemotherapy, which has an adverse effect on the outcome. The aim of the research is to study the morbidity profile of the patients and correlate the outcome to their present Nutritional and Socio-Economic Status and estimate the Over-all survival rates.

Methods: An Observational, Retrospective Cohort Study of 33 cases of ALL treated at a tertiary care hospital - pediatric hematology-oncology division. Pearson and Spearman's correlation and Chi-square test were used for the categorical data analysis.

Results: Out of the 33 patients treated, 20 (60.6%) survived. 5 (15.2%) died in the post-remission period mainly due to stroke, pyogenic meningitis, septic shock, Infective Enterocolitis and Fungal/ P. jiroveci pneumonia. 5 patients were lost to follow-up. Each patient received approx. 90 weeks (89.45±47.8) of treatment. The median age was 5 years (M/F=5.6:1). Two relapses after completion and one after 2-year abandonment of therapy was observed. The patient weeks for hospitalization (4.34), delay in chemotherapy (8.24), antibiotics (9.75), antifungals (1.3) and antivirals (0.2) given; and blood products support required (PRBCs-2.15±2.21,PLTs-1.27±3.03, FFP-0.18±0.73) was calculated.

Conclusion: The condition of children undergoing chemotherapy for ALL in India is significantly different from those recorded in the developed countries due to different socio-economic (financial burden, high drop-out rates and poor compliance), disease biology and genetic characteristics, and treatment-related factors. The study may help the hospitals to identify areas, which need to be strengthened such as achieving better nutritional status of the already immuno-compromised patients, implementing better hygiene and sanitation practices and help the physicians to be aware of the possible morbidities that the child is liable to suffer from during the post-induction period and take necessary steps towards preventing such diseases including early recognition and treatment.

Methicillin-resistant Staphylococcus aureus(MRSA) prevalence and risk factor assessment in a tribal Indian district: a study among health care workers

Mathai Jolhf Koshy, Deshmukh D

Introduction: Methicillin-resistant Staphylococcus aureus(MRSA) is a well-known nosocomial pathogen but awareness and control strategies are still lacking in various regions of developing countries. Our hospital lacked baseline health care worker data.The present study was carried out to assess the prevalence and to establish significant risk factors for colonization with MRSA in health care workers.

Methods: A cross sectional study was carried out throughout the hospital. Nasal swabs were collected from ninety one health care

workers and were screened for MRSA. MRSA strains were detected by disc diffusion and chromogenic agar. The D test was also carried out to detect inducible clindamycin resistance in the isolates. Hand hygiene practices were surveyed by means of a study questionnaire.

Results: Twenty MRSA carriers were identified among the 91 health care workers (21.98%;CI95:13.97-31.88 %). Among different locations a very high prevalence was found in emergency ward (62.5 %; CI95: 24.49 -91.48 %) (P <0.05) .The surgical and orthopedic departments also showed a very high prevalence (54.55% and 75% respectively) (P< 0.001). Thus the location and department of health care workers are significant risk factors for colonization. Inducible clindamycin resistance was found in 20.45% samples, which emphasizes the use of the D test in routine culture and sensitivity testing. Chromogenic agar was found to have high sensitivity and results were similar to those of disc diffusion (P<0.001). The present study has established baseline health care worker data.

Conclusion: The presence of significant risk factors aids in identification of high risk groups among hospital staff. Selective surveillance, decolonization, preventive strategies coupled with effective lab techniques implemented in these groups will go a long way in reducing the burden of MRSA in the hospital environment.

Chelioscopy and its patterns in comparison with ABO blood groups
Sagar B Patel

Introduction: Lips are two fleshy folds surrounding the oral orifice. They are lined externally by skin and internally by mucosa. A reddish zone covered by thin keratinized epithelium. The lip has many elevations and depressions forming a characteristic pattern called lip print. The study of lip prints is called cheiloscopy. It is used for personal identification since lip prints are unique for individuals and do not change during the life of a person.

Methods: The present study was carried out in the KLES V.K.Institute of Dental Sciences and K.L.E Hospital and MRC, Belgaum. A sample of 450 individuals was randomly selected for study. Subjects with any pathology involving lips like ulcer, mucocele, erosion, inflammatory edema, surgical scar, post traumatic scar, Congenital defects like cleft lip, lip pits, van der woude syndrome were excluded from study.

Results: Branched type of lip prints was the most common pattern followed by intersecting,vertical, reticular and undetermined type. Among the total of 150 individuals most common blood group "O Positive", followed by "A Positive", "B Positive","AB Positive" and "A Negative" and "B Negative" and "AB Negative".Then the lip prints were correlated with blood group.

Conclusion: Lip print (Cheiloscopy) pattern does not show any correlation with blood groups.

Evidence based dentistry among private dental practitioners in Belgaum city: a knowledge attitude practice(KAP) survey
Chetan Agarwal, Anusha Chintala

Introduction: Evidence based dentistry (EBD) is the practice that integrates best evidence with clinical experience in making clinical decisions. It serves to develop the clinical skills of dentists by making decisions on evidence rather than opinions. Although EBD has been accepted in Western countries, there are no studies related to its application among dental practitioners in India. The present study aims to evaluate the knowledge, attitudes and practice of EBD among dental practitioners in Belgaum City.

Methods: A self designed questionnaire will be administered to dental practitioners of Belgaum city. The questionnaire will consist of several items addressing the socio-demographic and professional aspects, and their knowledge, attitudes and practice of evidence based dentistry mainly in the form of close ended responses.

Results: 89% of the respondents were aware of EBD and agreed (87%) that it is a process of making clinical decisions on scientific evidence. They (85-88%) agreed that it allows dentists to gain knowledge and improves patient care. When faced with clinical dilemmas, most responded that that they ask their colleagues or consult electronic databases. 69% considered EBD important for clinical practice and 87% were interested to learn more about it. This attitude is substantiated by the mixed response for access to specialist EBD scientific journals and websites and the ability of UG training to equip them to practice EBD. Though, 53% believed that EBD is practical in routine practice, the main barriers identified were lack of time, knowledge and skills to practice EBD.

Conclusion: Though majority of the dentists were aware of EBD, they did not seek best evidence i.e referring to scientific journals and preferred to consult textbooks and colleagues. These shortcomings can be overcome by continuing dental education programs focusing on enhancing their knowledge and practice of EBD.

Prevalence of refractive errors in school going children of Mangalore city, Karnataka, India
Tanya Jain

Introduction: A refractive error may be defined as a state in which the optical system of the non accommodating eye fails to bring parallel rays of light to focus on the retina. Childhood visual impairment due to refractive errors is the second leading cause of treatable blindness and very common in eye clinics. Refractive errors are a also a part of the Vision 2020 programme. This study presents the prevalence of refractive errors among school children of Mangalore city along with sex and age distribution. This warrants early detection and treatment of refractive errors to prevent permanent disability such as squint, amblyopia etc.

Methods: Distant visual acuity was assessed by Snellen's visual acuity chart from 6 meter for both eyes for 781 students between 10 and 14 years studying in 5th to 10th standard. Children whose eye sight was not good i.e. who have a visual acuity of less than 6/9 were considered as 'eye sight not good' and they were advised for detailed evaluation and refraction. Examination data was entered into pro forma and analysed. Data analysis was done by chi-square test and a p-value less than 0.05 was considered statistically significant

Results: For the 781 students examined 12.45% had refractory error in left eye, 11.6% showed refractive error in right eye while 10.8% in both eyes. The overall prevalence was 12.5%. Students from the age group of 10 to 13 years were examined. From the 781 students examined 148, 298,312,16 belonged to the age group of 10,11,12,13 years respectively. Prevalence was maximum in 11 and 12 years 4.3% and 5.4% respectively out of the overall prevalence. For the 731 boys and 50 girls 91 boys and 6 girls had refractory errors.

Conclusion: The prevalence of refractive errors in school going

children of Mangalore is 12.5% with peak in children between 10 and 12 years with no major difference according to gender of the children. The data supports that vision screening of school children could be useful in detecting correctable causes of decreased vision especially refractive errors which lead to amblyopia and squint thus minimising long term visual disability.

Avoidable non-pathological factors delaying the medical care and increasing mortality and morbidity in young infants

PVS Phani Sastry, Y Kodandapani

Introduction: In India IMR is 46/1000 in 2012 which is far from the Millennium Development Goal of 28/1000 by 2015. More than 2/3rds of this is contributed by young infants (<2 months age). Timely medical intervention has huge impact on outcome. In this study, we studied the factors delaying the timely arrival of sick young infant to local hospital/ Tertiary care-center, the level of awareness of households regarding identification of sick young infant at home and whether mothers/ decision makers were imparted knowledge regarding new-born care and danger-signs at the time of delivery and later.

Methods: This is a cross-sectional study involving 400 sick young infants admitted to NICU/ wards in our tertiary care-center during the study period 2 months. Young infants born in our hospital and admitted directly in NICU and born outside and shifted directly to our NICU/wards were excluded. 27 well structured questions were posed to parent/ attendant and information is obtained.

Results: Delay due to parents occurred in 52% of cases. Mother's inability to identify the symptom contributed 48% and 52% by decision makers' delay. Once decided, 92% reached a hospital within 4 hrs. After referral, 28% failed to reach our hospital in time. Factors causing delay at various stages were analyzed. At the time of delivery-4%, at time of immunization-24% and at first level health ceter-1% of house-holds were imparted any child health related knowledge.

Conclusion: lack of awareness is the leading delaying factor followed by distance and lack of transportation. Fear of child being small leads them to a hospital and not the awareness of danger-signs. Opportunities in health education should be properly utilized. IEC activities should focus on both mother and decision maker. A pediatric care centre within a radius of 5kms & a referral centre within a radius of 50kms are required.

Local anesthesia in diagnostic nasal endoscopy : packing versus spray

Tanvi Seth, Prasun Mishra

Introduction: To have proper visualization of structures with minimal discomfort to patient and surgeon during nasal endoscopy, it is essential that the nose is well prepared before the procedure.To compare and evaluate the efficacy of cotton pledget packing versus topical sprays in Preparation of Nose for Nasal Endoscopy.

Methods: Prospective randomized blinded study on 100 patients divided in 2 groups. In first group the nose was packed with 4% lignocaine with adrenaline and in the other group with 10% lignocaine topical spray and xylometazoline drops. Following the procedure, patient and the surgeon's response were documented in a data sheet.

Results: The packing group required more preparatory time as compared to the spray group. There was significant difference in visualization of structures during endoscopy which was better in packing group, the spray group experienced significant discomfort as compared to the packing group. 8 patients had mucosal bleed during the process of packing which was not seen in the spray group.

Conclusion: Both the methods have some merits and demerits in terms of patient's comfort and preparation time. However, visualization of structures was better when nose was packed.

Evaluating awareness and practices pertaining to radioactive waste management among scrap dealers in Delhi

Nayani Makkar, Tany Chandra, Prachi Agrawal, Simranjeet Singh, Harshit Bansal, Mannan Kumar Gupta, Rajesh Kumar

Introduction: With nuclear technology rapidly taking the spotlight in the last 50 years, radiation accidents seem to be a harsh reality of the modern world. India has luckily managed to remain in the penumbra of radiation disasters. The Mayapuri Radiation leak accident of 2010 was the worst radiation accident India has yet dealt with. Two years thereafter, we designed a study to judge the awareness and practices regarding radioactive waste among scrap dealers aiming to assess deficiencies in radiation disaster preparedness and guide to prevent similar accidents.

Methods: It is a community based cross-sectional study. The study population consisted of 209 volunteers (from 108 scrap dealerships) including 108 shop-owners and 101 shop-workers segregated as Group A consisting of 54 dealerships in the Mayapuri scrap colony and Group B consisting of 54 dealerships from the rest of the city (divided into 9 districts). After obtaining valid, informed consent, the subjects were asked to complete a comprehensive questionnaire to assess their knowledge, attitude and practices pertaining to radioactive waste management.

Results: Awareness about radioactive waste varied significantly with level of education (p=0.024), Kuppuswamy's socio-economic scale (p=0.005), age of the respondent (p=0.049) and his work experience (p=0.045). Knowledge of the radioactivity symbol varied significantly with Kuppuswamy's scale (p=0.038) and with Per-Capita Income (p=0.052). Scrap dealers dealing in ferrous metals, at a higher potential risk of exposure, were aware of mitigation and response methods to a radiation hazard significantly more than those dealing in non-ferrous substances. The larger dealerships in Mayapuri were better equipped in terms of record maintenance and monitoring of waste dispatch while also undertaking regular preventive medical check-ups.

Conclusion: Our observations suggest that much of the knowledge regarding radioactive waste and its handling was inherently gained with little active intervention on part of the governmental and non-governmental agencies even in the aftermath of the Mayapuri incident. Knowledge was greater within Mayapuri than at other locations. This may be suggestive of either witness-based learning or an agency-based response to the 2010 accident. The study paved the way for designing a step-by-step source to victim response plan.

STEP criteria to compare three oral iron preparations in pregnant women attending rural teaching hospital

Aditi Singh Parihar, Nitin Gaikwad

Introduction: Oral iron therapy is preferred for its convenience for administration in iron deficiency anemia in pregnant women. However there is paucity of data for comparison of oral iron preparations with different elemental iron contents with reference to safety, tolerability,efficacy and price of drugs (STEP criteria). Hence, we decided to compare ferrous sulphate, ferrous fumarate and ferrous ascorbate and provide evidence based rationale to manage iron deficiency anemia effectively in pregnant women of rural areas

Methods: This was a prospective, randomized, parallel group, controlled, double blind clinical study conducted in Department of Pharmacology and Department of Obstetrics and Gynecology, of Rural Tertiary Care Teaching Hospital of Central India. Total 84 pregnant women aged between 18-40 yrs in gestation period of 13-26 weeks with baseline hemoglobin level between 8g/dl-10g/dl were recruited during the entire study conducted over a period of 4 months (May-August 2012)and were randomized into three treatment groups A, B and C. One group received ferrous sulphate, other group ferrous fumarate and third group received ferrous ascorbate daily for 6 weeks. At week 0, week 4 and week 6 complete hemogram (Hb%, MCV,MCH, MCHC , reticulocyte count) was done. Adverse effects were recorded on every visit. Compliance with study medication was determined by pill counting at each visit. The parameters of individual groups which are assessed at multiple point over a period were analyzed using Repeated-measure ANOVA followed by Bonferroni's test. One-way ANOVA followed by Tukey's test was applied to compare the data between groups. A $p< 0.05$ was considered as significant.

Results: The participants in Group A i.e. ferrous sulphate experienced more gastrointestinal adverse effects (85.71%) as compared to Group B i.e. ferrous fumarate (78.57%) and Group C i.e. ferrous ascorbate (67.86%). In addition, dropout rate was higher (57.14%) and compliance (47.88%) was poor in Group A. The significant rise in hemoglobin concentration, MCV, MCH and reticuocyte count was observed in all the three groups at Day 45 when compared with Day 0.However all three groups showed no significant rise in MCHC value from baseline at Day 45. The average treatment cost per patient was observed to be less in Group B i.e. ferrous fumarate as compared to other two treatment groups.

Conclusion: Based on STEP criteria,ferrous fumarate was found to be relatively safe, tolerable, efficacious and cost-effective as compared to ferrous sulfate and ferrous ascorbate especially in treatment set-up of rural areas.

A study of prevalence, duration and course of delirium in patients admitted in the cardiology ICUof a tertiary care hospital

Meenakshi Bamalwa, Syed Nazeer Mahmood, Samir Kumar Praharaj

Introduction: Prevalence rates of delirium ranging from 47 to 80% have been reported in the intensive care unit (ICU) setting. There is a scarcity of Indian studies on delirium, though it is a common reason for psychiatric referrals in multispecialty hospitals. No study has specifically looked at the rates of delirium in Cardiac ICU patients. Since the predominant goal of elective cardiac surgeries is to preserve and improve function, the fact that the occurrence of delirium can significantly contribute to cognitive decline is of major concern. The objectives of the study were to assess the prevalence, course and duration of delirium in patients admitted in the cardiac ICU and to outline risk factors associated with the occurrence of delirium.

Methods: This was a prospective study, conducted at a multispeciality tertiary-care centre, in Karnataka. Sample comprised of 50 consecutive patients above the age of 15 years, admitted in the cardiac ICU. All the patients were rated on Confusion Assessment Method (CAM) to ascertain the presence or absence of delirium on day 1, day 2, and every two days thereafter, until delirium subsided, or until they were discharged from the ICU.

Results: Among the sample of 50 patients, eight (16%) developed delirium. The mean duration of delirium was 1.5 (SD 0.53) days. The mean days for onset of delirium was 1.63 (SD 0.74) and mean days for offset of delirium was 3.12 (SD 0.83). The presence of electrolyte abnormalities significantly predicted delirium in our sample (OR 0.16, 95% CI 0.03 to 082), which accounted for 16.5% of the variance.

Conclusion: 16% of the patients admitted to the Cardiac ICU had delirium during their stay. Deranged electrolytes appeared as significant predictor of appearance of delirium in our sample.

Student's perceptions of educational environment:a study conducted among intern in rural India using Dundee Ready Educational Environment Measure score

Denita Fernandes

Introduction: DREEM score measures the strongest & weakest aspects of educational environment in institutions which directly impacts on student's learning & outcome.

Methods: DREEM questionnaire consisting of 50 questions ,divided into 5 Domains including Student's perceptions of learning,Teachers,Academic Self Perception,Atmosphere &Social self perception were analysed by 86 interns using 5 point LIKERT scale ranging from strongly agree to strongly disagree.

Results: Male students felt to a greater extent that they are encouraged by the teachers to participate in class which makes the learning objectives clear,learning strategies which worked earlier continue to work now,they feel confident about passing the exam ,they feel that they are well prepared for their profession,socially they have good friends.Female students have learned about empathy in their profession,they didn't find experience about the atmosphere disappointing,they are being well prepared for their profession.

Conclusion: The present study revealed that both male and female interns perceived the learning environment positively and the study also revealed some problematic areas.

A rapid latex agglutination test for qualitative and semi-quantitative detection of Toxoplasma gondii antibodies in different patient categories

TinaJeyaraj, Sucila Thangam G, Palaniappan N

Introduction: Toxoplasma gondii is one of the most common parasites that infects warm blooded animals including man. Toxoplasmosis is generally asymptomatic; however, this parasitic disease can cause symptomatic and life threatening conditions in neonates, pregnant women and immunocompromised patients. Diagnosis can be established by the detection of the simultaneous presence of IgM and IgG antibodies to Toxoplasma in the serum. This has increased the demand for rapid, specific, and inexpensive test

methods. Under this situation, this study emphasizes the use of a rapid latex agglutination test for qualitative and semi quantitative detection of Toxoplasma gondii antibodies in different patient categories.

Methods: This prospective study was conducted on peripheral blood samples of HIV patients (72), pregnant women (50) and ocular chorioretinitis cases (7) those admitted at Tirunelveli Medical College Hospital, Tirunelveli, Tamil Nadu from June' 2012 and July' 2012.A total of 129 samples were subjected to Rapid Latex Agglutination Test (Toxogen, Tulip Diagnostics (P) LTD) for qualitative and semi quantitative detection of Toxoplasma gondii antibodies.

Results: Out of 129 samples, eight samples (6.2%) gave positive results to Toxoplasma antibodies by Latex agglutination test (LAT). The test results show higher incidence of Toxoplasma antibodies in females (3.87%) than in males.(2.3%)Out of 8 LAT positive cases, 4 were pregnant women, 3 were HIV patients and 1 presented with chorioretinitis. Out of 8, 3 were Positive with Toxoplasma IgM antibodies, 5 were IgG antibodies. Out of 8 LAT positive cases, 3 showed positive reaction at titre 1:16, 3 at 1:32 and 2 at 1:64. 2 gave positive for IgM antibodies and one for IgG antibodies at titres of 1:16 and 1:32 while one for IgM and IgG at 1:64 titre. The sensitivity and specificity of LAT test were 100% and 88.4% respectively.

Conclusion: This rapid latex test is highly sensitive and can able to detect even 10 IU/ml of anti-toxoplasma antibodies in serum and is also useful to estimate the titre and the type of immunoglobulin present in the patients serum and to categorize the patients into acute or chronic cases. There by rapid latex test can aid the clinician for early diagnosis of toxoplasmosis and start the therapy to save the life of the individuals.

To study the prevalence, trends and severity of bullying behaviour among undegraduate medical students

Shrea Kapoor, Shaunak Ajinkya, Darpan Kaur, Rakesh Ghildiyal

Introduction: Bullying is a form of behaviour that can negatively impact the victim and have several deleterious consequences like low self-confidence and poor academic performance. Medical students, being at the bottom of the professional ladder are vulnerable to bullying. Studies conducted in many countries demonstrate that bullying in medical students impacts dispensing of health care and students' attitudes. Our study seeks to analyse the forms of bullying, their prevalence and severity among undergraduate medical students, and to elucidate how demographics impact trends associated with bullying.

Methods: This was a Cross Sectional Survey. Case Report Forms (CRFs) were distributed to undergraduate medical (MBBS) students (first year till internship), studying at M.G.M. Medical College, Navi Mumbai. CRF consisted of self-designed proforma, Illinois Bully Scale and Peer Victimization Scale. 400 forms were distributed between June-August 2012. 383 completed forms were analysed statistically using mean, mode, T-test and ANOVA.

Results: Prevalence of self-acknowledged bullying was 28.23%, whereas bullying as perceived by victims was 50.52%. Severity of verbal bullying (48.17%) was more common than physical bullying (22.45%). Verbal bullying was used equally by males and females. Males showed significantly (P= 0.001) higher prevalence of bullying, especially physical form of bullying (P= 0.012). Significant relation was found between students who had substance misuse and their

bullying behaviour [alcohol consumption (P=0.036), cigarette smoking (P=0.006), drug use (P=0.003)]. Increased frequency of substance misuse was significantly associated with increased bullying behaviour (P<0.05).

Conclusion: This study determined that the pattern of student bullying is more prevalent than perceived. Few Indian studies have been conducted on the topic of bullying and its damage to developing medical talent. Results of this study are noteworthy enough to warrant timely interventional measures to prevent future doctors from disillusionment with the medical profession. We hope this study can be used to devise programmes to eradicate the 'bullying phenomenon'.

Prevalence of lead induced anemia in painters of Mysore city

Nishil Gowda

Introduction: Painters are chronically exposed to lead due to the use of commercially available lead based paints. Due to chronic exposure, the lead enters the circulation mainly through inhalation and ingestion and causes impairment in the heme biosynthesis and increases the rate of red cell destruction and thus leading to anemia. Hence the present study was conducted to assess the prevalence of lead induced anemia and changes in hematological parameters among the painters.

Methods: Community based cross-sectional study was conducted on 100 occupational residential brush painters of Mysore city between July 2012 and November 2012. Ethical committee clearance was obtained. Informed consent was taken and each subject was interviewed and venous blood samples were drawn at their working place and subjected to automated hematological analysis (n=100). In a blinded fashion 30 samples were analysed for Blood lead concentration(PbB) using LEADCARE II Blood Lead Testing System(ESA Inc., USA), which works on the principle of Anodic Stripping Voltammetry(ASV).

Results: The prevalence of anemia among the painters was found to be 3%. The mean Blood lead concentration(PbB) was 12.9±10.9 µg/dL and the mean Hemoglobin concentration was 15.5±1.4 g/dL and the other haematological parameters were in the normal range. There was no significant correlation found between the PbB and haematological parameters. There was a high prevalence of lead toxicity symptoms and the symptoms were less in the painters who were more hygienic.

Conclusion: The prevalence of anemia in painters is low. As the lead exposure (PbB) in them is less, the lead induced anemia is not a health risk in painters. But the high prevalence of lead toxicity symptoms indicates that the painters do suffer from long term health effects of lead even at low levels of exposure. Being hygienical is an easily achievable goal to decrease the lead exposure among the painters.

Correlation of sequential organ failure assessment (SOFA) score at admission and patients' outcome in an ICU

Aditi Jain, Sanjeev Palta

Introduction: Critical care predictive scoring systems have been used in deciding admission to ICU and predicting the course of the disease. The Sequential Organ Failure Assessment (SOFA) uses values

from routine investigations. The aim was to determine the accuracy of SOFA score on admission in predicting outcome of patients in ICU.

Methods: In a prospective Study, 44 consecutive patients (of which 3 were excluded due to incomplete data) admitted to ICU over an 8 week period were studied. Clearance from Institute Ethics Committee and an informed consent was obtained. The SOFA scores were calculated as per SOFA severity score chart.The management of the patient was carried out as per the standard policy of the department. The outcome measures studied were mortality and duration of stay in ICU. Initial SOFA score was correlated with the outcome measures using appropriate statistical tests. SOFA score was correlated with the outcome measures using Mann Whitney test. Multivariate analysis of factors predicting the mortality was done with regression analysis (SPSS package). Validation of SOFA scoring in determining the outcome of patients in the two groups was seen.

Results: Of the 41 subjects 25 were males & 16 were females (age range 15- 80 years; mean age 40 ± 16 years). Sixty two percent males and sixty percent females survived. Indications of admission to ICU were due to 30 (73%) surgical, 10 (24%) medical and 1 (3%) obstetrical reasons. SOFA score correlated significantly with survival and poor cardiovascular score with mortality. Other individual system score as well as the duration of stay in the ICU did not have a significant correlation with the outcome.

Conclusion: Evaluation of the SOFA score should be considered in its composite form as a predictive model. The different system scores individually may not be good predictors.

Prospective analysis of micro-organisms causing infections in burn patients and their antibiotic sensitivity patterns
Pallavi Hiremath

Introduction: Burns are one of the most common and devastating forms of trauma. The burn wound itself, the disrupted skin barriers and the accompanying immunosuppression compounded by prolonged hospitalization, invasive therapeutic and diagnostic procedures predispose burn patients to infection. Prevention of infection in burn patients poses a great challenge as infection is the most common cause of mortality after burn injury.This analysis in burn patients was performed to prospectively determine the extent of such infections in burns patients. We sought to assess the risk factors of acquisition of nosocomial infection in these patients, to identify the most common pathogens causing infection and their antibacterial sensitivity patterns.

Methods: Tissue biopsy and pus samples were collected from 54 patients admitted to the burn care units of Victoria hospital, Bangalore. The pathogens were identified by simple microbiological procedures. Antibacterial susceptibility testing was done using modified Kirby-Bauer method as per CLSI guidelines.

Results: It was seen that the burn wounds were infected in 94% of the burn patients. The most common causative agents found were Staphylococcus aureus (25.9%) out of which 50% were MRSA and 28.5% were MRSA with inducible clindamycin resistance, Klebsiella species (27.7%) out of which 6.7% were ESBL positive. The other organisms were Proteus (18.5%), Pseudomonas aeruginosa (12.9%), Citrobacter koseri(7.4%), Gram negative non fermenters(5.56%) & E. coli(1.9%). These organisms were sensitive to more efficient antibiotics like ertapenem, piperacillin+tazobactam, chloramphenicol, linezolid (as in case of MRSA), tetracyclines and cephalosporin group of drugs.

Conclusion: The study underscores the need for careful disinfection and strict infection control measures in burn care units. It also emphasizes the need of limited use of prophylactic antimicrobial agents by the burn surgeons, thereby reducing the incidence of antimicrobial resistance among the organisms.

Self care in diabetes: a study amongst diabetics in an urban community
Supriya Kumari, AS Kushwaha

Introduction: To study the demographic characteristics of the diabetic patients in am urban community, to study the practice of self care among the diabetics and to make suitable recommendations based on the findings to improve self care.

Methods: The data was collected from diabetic patients attending the Diabetic clinic and urban Health Centre by two part questionnaire. The data from those patients who are unable to fill the questionnaire was collected by interviewing them. The data so obtained was converted into an excel file and analysed using SPSS software by a qualified statistician. Section A investigated basic patient history (demographics and disease state), while section B was a SDSCA (Revised Version) questionnaire on diabetes mellitus

Results: Seventeen percent of the subjects had Diabetes type 2 as compared to diabetes type 1 with eight percent. Half of the subjects had more than one co morbidity. Nearly two third subjects were hypertensive while one third had associated heart problems. Though four fifth of the subjects did go to a doctor but three fourth of them visited doctor less than once a year. Seventy percent of the subjects had not tested their blood sugar in previous week while sixty five percent subjects rarely got their blood sugar level tested.

Conclusion: This study found that the self care practices followed by the subjects were variable and dependent on the specific category, while majority of the subjects were having drug compliance but significantly less number had control over their lifestyle. One third of the subjects adhered to a diet plan, less than two third did optimum level of exercise, and two third took care of their feet most days in the previous week whereas three fourth had drug compliance.

Prevalence and association of sleep disturbance in patients with rheumatoid arthritis
Parul Sarwal

Introduction: Rheumatoid arthritis patients experience difficulty in falling asleep, frequent awakenings and non-restorative sleep, which are shown to significantly correlate with depression, pain, fatigue and functional-disability. According to Johns Hopkins' Rheumatology Division, sleep-disturbance, a well-documented RA symptom, is understudied. Likewise, studies in India haven't yet focused on the interrelationship between sleep-quality and RA. This study bridges that gap in Indian literature by finding prevalence and association of sleep-disturbance in RA patients.

Methods: A cross-sectional study of 50 subjects (RA patients and controls selected by non-random sampling) was carried out over 2 months in a government and a private hospital after institutional ethics committee approval. Informed consent was taken. Each study variable (i.e. disease-activity, depression, pain-severity, fatigue, functional-disability and sleep-quality) was assessed using its respective standard questionnaire/scale. Sleep-disturbance was then correlated with each variable. Upon statistical analysis

with SPSS-15, frequencies, proportions and percentages were calculated. Bivariate relations between continuous variables (using Pearson correlation), and independent factors contributing to sleep-disturbance (using multiple-regression analyses) were examined. Chi-square test was applied for the strength of association and results summarized.

Results: Prevalence of poor sleep was high in our cohort (68%) as was that of depression (82%). Extents of fatigue and disease-activity were moderate. Mean disease-duration was 22 months, within the golden time-period for treatment (3-24 months), after which ensue chronicity and difficulty to treat. On analysis, we found direct association between functional-disability and disturbed sleep in RA patients.

Conclusion: Direct association between functional-disability and poor sleep was deduced; functional-disability being possibly multifactorial. The association established by us, though limited by the cross-sectional study-design, is interesting and new; future longitudinal studies can find out the direction of the demonstrated association. Addressing functional-disability could have beneficial effects beyond improving sleep-quality in RA patients.

Estimation of serum zinc levels in children hospitalized with pneumonia
Deepthi D

Introduction: Pneumonia is responsible for 2 million(19%) deaths each year in children below the age of 5 years. Zinc administration as a therapeutic agent is well documented in acute or persistent pediatric diarrhea. Zinc is an important antioxidant and an immunomodulator which protects respiratory epithelium from infections. However, studies on blood zinc levels in severe childhood pneumonia cases are limited and conflicting. The studies on advantages of zinc supplementation in severe pneumonia are also limited. Hence, the present study was aimed to estimate serum zinc levels in severe childhood pneumonia cases and to compare the same with controls.

Methods: It was a case control study conducted for a period of 2 months in Mysore Medical college and Research Institute.30 pneumonia cases diagnosed using WHO classification and hospitalized for the same and 15 age and sex matched healthy controls in the age group of 2 months to 5 years were chosen for the study. This sample size was arrived at by keeping 5% significance and allowable error of 20%. Children diagnosed with diabetes(Type 1), persistent diarrhea, asthma, drug allergy and children on zinc supplementation were excluded from the study. Blood samples were collected after obtaining Institutional ethical committee clearance and informed consent from the parents. Blood samples were centrifuged to obtain serum samples. Zinc level in serum samples were estimated by Atomic Absorption Spectrophotometry.

Results: The mean serum zinc value in pediatric pneumonia patients was $39.390\pm13.16\mu g/dl$ and in controls was $62.811\pm13.20\mu g/dl$. This was statistically significant(P<0.0001). The odds of developing Pneumonia was found to be 19 times more in zinc deficient children than in children with normal serum zinc level.

Conclusion: The present study showed significant reduction in serum zinc levels in pediatric pneumonia cases. This might help in planning intervention studies for possible benefits of zinc supplementation for prevention, treatment and prognosis of pediatric pneumonia.

Evaluation of different treatments for rheumatoid arthritis with respect to efficacy, quality of life and cost: a preliminary, cross-sectional study
Dave Paulomi Manoj, Vinayak Gokhale

Introduction: The evaluation of the efficacy of disease modifying drugs (DMARDs) used for Rheumatoid Arthritis (RA) should in addition, include assessment of economic burden,quality of life and costs.This cross-sectional study was planned with the objective of assessing effectiveness,impact on quality of life,adverse effects and the cost of various drugs treatments used for RA during an initial 6 months of therapy.

Methods: After obtaining approval from the Institutional Ethics Committee, 20 patients suffering from RA and undergoing treatment for less than 6 months were interviewed and examined. Treatment outcome was assessed using the Health Assessment Questionnaire Disability Index (HAQ-DI), Disease Activity Score (DAS28), and a pre-validated quality of life (QoL) questionnaire. Data of treatment-naive RA patients obtained from a previous study at the same centre was used for comparison..Costs incurred by patients on account of their disease and treatment were also recorded and reported using descriptive statistics.Information regarding adverse drug events was also noted.

Results: Out of 20 patients (17 females and 3 males), ten had completed 3 and the other ten 6 months of treatment .All patients received DMARDs viz. methotrexate, hydroxylchloroquine and leflunomide. Five received monotherapy and fifteen were given a combination of DMARDs. In addition, ten were given steroids.The mean score of HAQ-DI in all patients given DMARD treatment was significantly low (p<0.01) when compared to untreated RA patients. DAS28 and QoL scores were low among treated patients but not statistically significant.The total average monthly cost incurred by the patients was Rs. 536.18. Eleven out of twenty patients reported adverse events. These included nausea, hyperacidity, loose stools and headache.

Conclusion: The study demonstrated that early treatment with DMARDs, can control disability as well as disease activity, producing favorable effects on quality of life at a cost to the patient of about Rs. 500 a month.

Effectiveness of intra-discal ozone therapy in the treatment of low backache
Vanshika Gupta, Pankaj Banode

Introduction: Ozone therapy has shown promising results due to its analgesic, anti-inflammatory & immunomodulatory effects in treating lumbar disc herniation (LDH). As such, little data is available regarding the efficacy of ozone in Indian literature, evincing it's low prevalence despite its numerous advantages.Thus, we aim to study the effectiveness of intra-discal ozone therapy in reducing pain & disability in patients of LDH.

Methods: A retrospective study was carried out at a tertiary care hospital. Case files of fifty-five adult patients in the age group of 20 to 65 years, who were treated with oxygen-ozone therapy following complaint of low back pain, were collected and analyzed. The clinical outcome was assessed by the follow-up data, pursued after 48 hours, 4 weeks and 6 months of treatment by applying the modified MacNab method and Visual Analog Pain Scale (VAS) scoring. Statistical Analysis was performed by paired student t test.

Results: 52.7% patients belonged to the age group of 40-59yrs and 80% were male. 30.90% suffered from co-morbid conditions, predominantly hypertension (14.54%). Level of disc involvement was L4-L5 in 54.54%, followed by L3-L4, L5-S1 and multiple discs. Pre-ozone assessment of VAS score revealed moderate pain in 38.18% patients, severe in 52.72% and excruciating pain in 9.09% patients. Significant difference was found in the mean VAS score on all follow-ups. On evaluating the therapeutic effectiveness, based on MacNab's criteria, 63.6% patients showed complete recovery, 9% had significant relief and 27.4% had no improvement.

Conclusion: The level that was found more prone for disc prolapse was L4-L5. The most common cause of LDH was found to be lifting heavy weights. There was significant improvement in most patients who failed to respond to conservative therapy after ozone therapy, both in pain and disability. Intradiscal oxygen-ozone, thus, proved to be a safe & cost-effective therapy in treating LDH.

Effect of instrumental music on sub-maximal treadmill exercise in young healthy adults
Roshan Christina Jaichander, Savitha D

Introduction: It has generally been regarded that the music accompaniment to exercise provides psychological benefits to the exercise experience. Though studies regarding the effects of music on exercise have been done, no extensive study has been performed on how instrumental music (fast tempo) affects physiological parameters during submaximal exercise. Hence this study was conducted to assess the effect of instrumental music on Heart Rate (HR), Rating of Perceived Exertion (RPE), Rate of oxygen consumption (VO2) and rate of carbondioxide expulsion (VCO2) in young healthy adults during sub-maximal treadmill exercise.

Methods: This is a cross-sectional, laboratory based study conducted over a period of two months. Each subject (n=36) underwent two sessions of exercise protocol – one without music and one with instrumental versions of same piece of music in random order on consecutive days. Protocol consisted of 10 min treadmill exercise at 70% HR max and 20 min of recovery. Minute to minute heart rate,breath by breath recording of VO2 and VCO2 and Rating of Perceived Exertion were recorded at end of 10th min during the exercise period. All data are continuous, normally distributed and presented as Mean ± SD. Area under the curve approach was used to compute overall VO2 and VCO2. Mean heart rate, RPE, VO2 and VCO2 compared between the two experiments using paired t-test. Statistical analysis performed using PASW Statistics 18, ReleaseVersion 18.0.0 (Ó SPSS, Inc., 2009, Chicago, IL). Statistical significance is considered at p<0.05.

Results: The mean heart rate, exertion levels, VO2 and VCO2 were significantly lower (P<0.05) in the instrumental music group when compared to no music group.

Conclusion: Listening to instrumental music lowers the heart rate, exertion levels, rate of oxygen consumption and carbon dioxide expulsion in young healthy adults performing submaximal exercise. RRA

Comparative study of various types of arrhythmias in cardiac patients presenting to a tertiary care center- an ECG study
Sameer Mittu, HS Pannu, Anjuman Sharma

Introduction: The presence and complexity of both supraventricular and venrticular arrhythmias may influence morbidity , mortality and the quality of life of patients. Risk factors and the underlying mechanisms need further study to find the association between these and the types of arrhythmias , so that successful measures can be taken to prevent these arrhythmias and serious complications. The study was carried out to make a comparison of different types of arrhythmias in cardiac patients presenting to a tertiary care center.

Methods: The study included 100 patients who presented to the Department of Emergency or Cardiology over a period of two months. The study questionnaire was filled. ECG was used to diagnose the arrhythmia. The various types of arrhythmias were compared with respect to parameters like age , sex , prevalence , presenting symptoms and the final diagnosis. The statistical tools like Mean , Standard Deviation and Tukey's Multiple Comparison Test were used.

Results: Prevalence of arrhythmias was more in the age group 60-69 years with a strong male preponderance. In our study sample , Sinus Tachycardia (51.13 years) and Atrial Flutter (57.86 years) were found to occur at an early age whereas Left Bundle Branch Block (62.29 years) and AV Blocks (62.11 years) were observed to occur somewhat later. In order of occurrence , Atrial Fibrillation (38.00%) was the major arrhythmic event prevalent in patients followed by 3RD Degree AV Block (18.00%) and Ventricular Tachycardia (9.00%). The most common diagnosis included CAD (26.00%) and RHD (11.00%). Amongst the symptomatology , shortness of breath (65.00%) , palpitations (62.00%) , chest pain (51.00%) , neurological symptoms (50.00%) , dizziness (44.00%) and body weakness (44.00%) were amongst the major chief complaints in arrhythmic patients.

Conclusion: It was concluded that Atrial Fibrillation was the most common arrhythmic event and elderly patients with CAD and RHD were more prone to arrhythmic attacks. The influence of Hypertension , Diabetes , Alcohol consumption , Smoking and genetic susceptibility on the development of arrhythmias was seen though their establishment as a fact requires a large sized cohort study.

The use of footlength measurement with low birth weight to detect at-risk babies for early referral at community level.
Shrishti Kanodia, Leslie Lewis, Asha Kamath

Introduction: Neonatal mortality because of low birth weight and prematurity remains high in many developing nations like India. Early identification and referral of low birth weight babies using new born surrogates of birth weight for extra essential new born care is vital in preventing the deaths as shown by many studies. The aim of this study was to show that foot length could be employed as an anthropometric surrogate for birth weight, to categorize at risk low birth weight babies based on foot-length centiles at birth and to also develop a simple operational foot-length cut off that could be used to screen the babies.

Methods: This was a cross sectional study carried out among 164 neonates having birth weight more than 1500 grams in a tertiary care hospital. Birth weight, head circumference, length and foot length were recorded on the first day of life after taking a written consent from the parents. Right foot of the neonates was measured from the heel to the tip of hallux using a stiff transparent plastic metric ruler.

Results: Of the 164 neonates enrolled into the study 51.2% were males and 48.8% were females. Foot length of less than 7.5 cm was 86.6% sensitive and 48.6% specific (80% confidence level) and foot length of less than 7.2 cm was 78.4%n sensitive and 65.1% specific (80% confidence level). 29% of neonates having footlength less than 7.5 cm were hyperbilirubinemic in contrast to 16.7% of neonates with foot length more than 7.5 cm who had hyperbilirubinemia.

Conclusion: This study has shown that simple and inexpensive measurement of footlength may be used to screen for low birth weight and prematurity in neonates for early referral at community level though it needs to be carried out on a larger scale with a bigger sample size.

Evaluation of the central analgesic effects of Commiphora mukul

Khushboo Goel, Ekta Tiwari, Akanksha Gautam, Mohan Amberkar, Anand Koppal, Arka Mondal

Introduction: Drugs that are currently used for the management of pain are opioids or non-opioids. All these drugs carry potential toxic effects. On the contrary many medicines of plant origin had been used since ages without any adverse effects. It is therefore essential that efforts should be made to introduce new medicinal plants to develop more effective and cheaper drugs. Our aim is to evaluate the central analgesic effects of Commiphora mukul

Methods: Analgesic activity was studied in rats using hot plate and tail-flick models. Codeine 5mg/kg and vehicle(gum acacia) served as standard and control respectively. The reaction time was recorded before and after +30, +60, +90, +120 and +180 m following administration of test/standard drug. Percentage increase in reaction time (I %), was derived, using the formula I% = {(It − Ic)/It} × 100. The mean reaction time for each treated group was determined and compared. Descriptive statistics and multiple response analyses conducted using SPSS 17 software. A p< 0.05 will be considered significant.

Results: In both hot-plate and tail flick models, the extract and codeine showed significant increase (P<0.05) in the reaction time. The percentage increase in the reaction time was dose-dependent and differed significantly among the different groups of rats (P<0.05). At all the specified time intervals, the percentage increase in reaction time differed significantly (P<0.01) between the extract and codeine Vs control, being greater for codeine. In Tail flick method, 60mg/kg and 120mg/kg extract exhibited 32.88% and 44.22% peak increase in the reaction time respectively whilst codeine gave 52.99% increment. In Hot plate method, 60mg/kg and 120mg/kg extract exhibited 37.31% and 48.56% peak increase in the reaction time respectively whilst codeine gave 58.56% increment.

Conclusion: Commiphora mukul possesses analgesic activities.

Study of serum E-selectin levels in cardiovascular disorders in Udupi district

Aaron Alexander, Namita Rao, Pragna Rao, Varashree BS

Introduction: E-Selectin is a transmembrane glycoprotein expressed on endothelial cells after activation by inflammatory cytokines or endotoxins.E-selectin recognizes and binds to sialylated carbohydrates present on the surface proteins of certain leukocytes and helps in their migration to the inflammatory site.Expression is transitory, then declining with shedding of soluble E-selectin.

Although sE-Selectin is anticipated to suppress leukocyte migration by competing with surface associated E-Selectin, It may activate neutrophils and act as a pro-inflammatory agent.Since inflammation is closely related to the pathogenesis of CVD, The aim is to see if E-selectin levels in blood can be used along with other currently adopted parameters to screen for risk of CVDs.

Methods: Serum samples of subjects between the ages of 50-60 with CVD were chosen randomly on the basis of hs- Troponin- t levels and were divided into 3 groups of 15 each. The Abnova human sE-selectin immunoassay- a four and a half hour solid phase ELISA was used to measure sE- selectin in serum samples. CK, CKMB- mass, hs- Troponin- t and CKMB were analysed using auto analyser- Cobas 6000.

Results: E-selectin showed a negative correlation with hs- Troponin-t in Group 2. There was a negative correlation between hs- Troponin-t, E-selectin in group 3. CKMB mass showed significant correlation within the groups but no correlation was seen between the CKMB-mass levels and E-selectin & hs-Troponin-t in all the groups

Conclusion: There does not appear to be any role for E- selectin as a marker in the studied population according to the present study. The fact that E- selectin has genetic polymorphism may explain the lack of significant difference in E-selectin levels.

Psychosocial issues and factors influencing psychological status of pregnant women attending antenatal clinics in tertiary care centres in Mangalore

Tanvi Das, Prasanna Mithra P

Introduction: In India women are vulnerable to sexual exploitation and suffer from poor antenatal care coverage, prevalence of anemia, reproductive tract and HIV infections and violence. Therefore it is the need of the hour for health care providers to have a thorough knowledge about the various factors influencing the health status of pregnant women which will enable them to detect the psychosocial concerns at the earliest. In light of the above, it becomes clear that pre-screening for antenatal depression is increasingly being recognized as a determinant of health for childbearing women. Thus, in this regard the present study was carried out to identify the prevailing psychosocial factors, influencing the psychological health of antenatal women in our society.

Methods: This hospital based cross sectional study was conducted at KMC Hospital Attavar and Lady Goschen Hospital providing Obstetric services in Mangalore City to assess the psychological problems present among 422 antenatal women under survey, to determine the factors influencing their mental health status and their perceptions and practices towards psychosocial factors during pregnancy. They were interviewed using a pretested and validated questionnaire which included the Edinburgh Postnatal Depression Scale (EPDS) to assess antenatal depression.

Results: The level of Antenatal Depression was found to be 24.5%.

Conclusion: Antenatal Depression was influenced by-Age at conception, Parity, Education Status, Work Status, Dream Pattern, Sexual Abuse by partner and Tobacco chewing habit during pregnancy. Awareness regarding both the importance of assessing psychological factors in pregnancy and their effect on the outcome of pregnancy among the subjects was high. Only half of the pregnant women acknowledged that their attending doctor had educated them regarding the value of psychological health during gestation. The number of women taking prenatal classes was low.

Comparative analysis of the impact of low decibel and high decibel sound-waves on fetal heart rate

Asmita Nandedkar, Jayant Vagha

Introduction: Aim: To study the effects of high decibel sound-waves and low decibel sound-waves on fetal well being. Objectives being, to study the effects of high decibel sound waves on fetal heart rate and movements. To study the effects of low decibel sound-waves on fetal heart rate and movements. To do a comparative analysis of the two above mentioned objectives.

Methods: 50 pregnant women in their third trimester, willing to consent will form the substance of our study. They will be divided into two groups of twenty-five randomly. Their preliminary information will be entered in the proforma. The fetal heart rate would be measured by a standard cardiotopograph and perception of the movements will be noted before the intervention. [High - 90-100 decibels, Low - 20-30 decibels, 5 mins] The fetal heart rate and perceptions of fetal movements will be noted before and during the session.

Results: Two groups of mothers (25 each) were made to listen to music of low (25-35dB) and high decibels (80-90dB) and during these episodes fetal movements and fetal heart rate were monitored. Exposure to low decibels, 14 out of 25 (56%) mothers experienced increased movements. When exposed to high decibels 12 out of (48%) mothers experienced increased movements. We expected high decibel sound waves to produce fetal unrest and in turn increase movements but this was not observed. When exposed to low decibels, 10 fetuses (40%) showed increased heart rate whereas 9 (36%) showed no significant change, rest showed decrease. When this was compared to the high decibel group 14 (56%) showed increase, only 4 (16%) showed decrease and rest showed no change heart rate.

Conclusion: When put to statistical tests it was not statistically very significant (p= 0.4569. Fetus responded to both low and high decibels, heart rate being a more sensitive index.

Interpretation of Forced Expiratory Flow (FEF 25-75%) as predictors of Chronic Obstructive Airway disease in smokers

Srividhya Ravi, Surendra Menon

Introduction: Chronic obstructive pulmonary disease (COPD) is a substantially undiagnosed disorder, with the diagnosis typically missed or delayed. Cigarette smoking is a major cause of COPD as Cigarette smoke contains irritants and vasoactive substances. As a diagnostic test, spirometry is a reliable, simple, non-invasive, safe, and non-expensive procedure. Early diagnosis of COPD should provide support for smoking cessation initiatives and lead to reduction of the social burden of the disease. Spirometry is recognized as the essential test for diagnosis and monitoring of COPD.This study is aimed at interpreting the importance of Forced expiratory flow (FEF) values in the prediction of Chronic Obstructive Airway Disease in Smokers using spirometry

Methods: We performed a prospective observational study in participants attending Master health check up unit in a Tertiary Health Care Referral Hospital. The predicting efficacy of FEF 25-75% in detecting early airway obstruction is analysed in relation to Age(in years) ,Body Mass Index, Habit of smoking, Number of cigarettes smoked per day, number of years of smoking, Pack-years.

Results: We found there was a statistically significant association between FEF 25-75% with Age(p-value 0.044), Number of cigarettes smoked/day(p-value <0.01), Number of smoking years(p-value <0.01), Pack-years(p-value 0.049). In contrast there was no significant association between FEF 25-75% in relation to age(in years) and type of tobacco form smoked.

Conclusion: The reduction in FEF25-75% is due to inflammation of small airway, where disease of chronic air flow obstruction originates. Various studies have been performed, there exists a controversy in accepting FEF 25-75% sensitivity in diagnosing Chronic obstructive airway disease to detect early small airway obstruction in smokers. In our study, we found reduced FEF 25-75% values despite normal FEV1 values in approximately 52% of the total study population. Thus, FEF 25-75% can be considered as a sensitive parameter to detect early small airway obstruction as an impact of smoking.

Body composition parameters as correlates of coronary artery disease: a case control study

Rohit Singh, Atul Kotwal

Introduction: Coronary Artery Disease/Coronary Heart Disease (CAD) burden is projected to increase from around 47 million DALYs globally in 1990 to 82 million DALYs in 2020. The genetic predisposition, studies have also revealed the influence of the interaction of host factors like age, sex, family history, obesity and environmental factors like sedentary life style, dietary pattern, socio-economic status, etc. Visceral adiposity & abdominal adiposity among populations has increased owing to the lack of exercise and the widely available energy-dense diet. Body composition analysis (that includes Percent body fat, visceral fat area, body mass composition, etc.) not only to validate waist circumference, but also help to know the accurate distribution of fat (upper body, abdominal, visceral, subperitoneal, etc.) and their correlation to risk.

Methods: Setting:The study will be carried out amongst the personnel of the armed forces in Pune in two groups, namely the cases of CAD and age and sex matched controls.Place of the study:Pune. Design-Case Control study. Study population:service personnel of more than 30 years of age. Sample size:50 cases and 50 controls. Exposure variables:Visceral fat are, Skeletal muscle mass, Percent body fat, Anthropometry. Equipment:Body composition analysis recorder(Inbody720 body composition analyzer-Direct Segmental Multi-frequency. Bioelectrical Impedance Analysis Method using 8 point tactile electrode system), Non stretching measuring tapes, Skin fold thickness measuring calipers, Weighing scale.

Results: The proportion of cases and controls having high BMI was 70% and 48% respectively. There is a significant linear trend of association was seen among cases and controls with respect to BMI. A case of CAD is 5.67 times more likely to be having the exposure of high VFA as compared to a person not having CAD and this association was found to be significant. A case of CAD is 4.42 times more likely to have the family H/O CAD as compared to a person not having the family H/O CAD.The study showed that there is a significantly increased risk for CAD associated with VFA (OR 5.67; 95% CI: 1.96, 16.95)), percent body fat, waist-hip ratio (OR for males 6.73; 95%CI: 1.99, 24.08), and waist circumference (OR for males 3.69; 95%CI: 1.15, 12.35), body mass index (OR 2.53; 95%CI: 1.03, 6.26), physical inactivity(OR 2.53; 95%CI: 1.03, 6.26) and family H/O CAD(OR 4.42; 95%CI: 1.03-21.63)

Conclusion: Evidence based interventions, as part of comprehensive strategies for prevention, are expected to reduce a large proportion

of CAD cases in future. Knowledge regarding body composition differences amongst CAD cases and controls will help in predicting risk for individuals and also formulating primary preventive strategies for CAD, wherein healthy individuals 'at risk' can be identified and prevented from developing the disease.

Screening for beta thalassemia trait In pregnant women by Nestroft
Hitesh Sarda

Introduction: This study was conducted in KIMSH to screen pregnant women for potential Beta Thalassemia trait and therefore to conclude whether screening for it should be included as a routine in regular antenatal check ups. Screening for BTT in a pregnant mother is important as it heralds the cascade of further investigations and management which ultimately help in preventing the birth of thalassemia major child.

Methods: Naked Eye Single Tube Red Cell Osmotic Fragility Test (NESTROFT) was used. This technique is based on the limit of hypotonicity, which the red cells can withstand. A positive NESTROFT indicates that all red cells in the tested sample have not undergone lysis in 0.36% buffered sa¬line. These unlysed red cells result in the hazy appearance of the contents of the tube and render the line on the paper indistinct.These red cells sediment as a button at the bottom of the tube when left undisturbed for some time. Thus a positive NESTROFT indicates decreased red cell osmotic fragility and increased resistance to osmotic lysis.

Results: In our study consisting of 55 pregnant women, 12 gave positive result with Naked eye single tube osmotic fragility test (NESTROFT) showing an incidence of NESTROFT positivity of 21.89% with a mean haemoglobin of 11.43 gm% and mean PCV of 32.6% in our hospital.

Conclusion: The simplicity, cost effectiveness (< Re 5/test) and increased negative predictive value (NPV) makes NESTROFT an ideal, valuable and good screening test, which helps in picking up potential BTTs and subjecting them to expensive tests like Hb Electrophoresis and High performance liquid chromatography. A continued study for longer periods, involving a larger number of pregnant women from different geographical areas, castes and communities may be required to ascertain the prevalence of the thalassemia trait and the necessity of routinely screening for it.

Is eGFR a better marker for kidney function than serum creatinine alone?
S Alekya Reddy, Swapnali, Praveen Kumar Devarbhavi, Ravikiran Kisan

Introduction: Chronic kidney disease (CKD) is a common health care problem. Kidney function is assessed in clinical practice to screen for kidney disease, to adapt dosage of medications for renal clearance and to follow the evolution of known kidney disease. It is hence important to assess kidney function as accurately as possible. Currently, Serum creatinine (SCr) is the most widely used screening method of assessing renal function clinically, however, SCr levels remain within the normal range even when renal function is significantly impaired thus making the recognition of kidney dysfunction difficult. MDRD (modification of diet in renal disease) equation provides a rapid method of assessing GFR from SCr and routine data. Hence,this study is designed to determine the extent of misclassification of the patients who have significantly reduced

GFR as calculated by MDRD equation but normal range of SCr.

Methods: The present study is conducted at SSIMS & RC, Davangere. The study includes around 450 patients of both genders in the age group- 20 to 80 years. Renal transplant patients, patients on dialysis, on medication affecting kidney function, diseases affecting SCr (liver diseases, muscular dystrophy) are excluded. Patient written informed consent has been obtained. SCr is estimated by modified Jaffe's method. eGFR is calculated by MDRD equation.

Results: Of the 493(100%) patients,110(22.31%) had renal dysfunction on the basis of eGFR(<60ml/min/1.73sq.mts). However with SCr only 85(17.24%) patients had abnormal renal functions(1.3mg/dl) and SCr values misrepresented 25(5.07%)patients with impaired kidney function.

Conclusion: So this study documents that a large proportion of patients with impaired renal function are not diagnosed if only SCr estimation was done as evidence of normal renal function.So inclusion of calculated eGFR may facilitate the early identification and intervention of patients with renal impairment.

Prevalence of urinary tract infection in febrile children below 5 years of age, admitted in tertiary care hospital in dakshina Kannada district
Manjula J, B Rekha, Sudhir Prabhu

Introduction: Urinary tract infection (UTI) is a leading infection in pediatric patient causing morbidity and mortality. Normally, urinary tract proximal to distal urethra is sterile, but it is constantly challenged by the infectious pathogens fighting to gain access. Throughout childhood, risk of UTI is 2% for boys and 8% for girls with majority being caused by Gram negative bacilli. There is need of early diagnosis of UTI in febrile pediatric patients to reduce morbidity and mortality. The study is first of its kind in this part of the region based on a hospital based setting. Research question is, what is the frequency and most common organism of UTI in febrile children < 5 years of age. Primary objective of the study is to determine the prevalence of UTI in febrile children, <5 years of age, and secondary objective is to determine the spectrum of bacteria causing UTI in children and to determine the antibiogram of the bacterial isolates.

Methods: It is a cross sectional, descriptive, hospital based study. Microbiological tools were used to conduct the study. 100 children, <5 years of age were included and patients catheterized were excluded. After obtaining the ethical clearance, Consent from the parents, the detail information about the patient was extracted using a pre-structured questionnaire. Mid stream urine was collected in a sterile container and culture and sensitivity of the bacteria was done using a standard technique.

Results: 60 boys and 40 girls were included in the study.Growth was present in 35% of the patients. Growth was more commonly seen in 1- 2years (36.84%) followed by 4-5 years (31.034%). Escherichia coli was the predominant organism grown (37.14%), followed by Klebsiella species (20%). Antibiotics sensitivity was done for all the organisms isolated. Escherichia coli were sensitive to Co-trimoxazole, Gentamicin, Norfloxacin, and Nitrofurantoin. Klebsiella species were sensitive to co-trimoxazole, Nitrofurantoin, Norfloxacin, Gentamicin, and Gentamicin.

Conclusion: Our study revealed that Escherichia coli as the most common organism causing UTI in febrile children, followed by Klebsiella species. Study also indicated that children between 1-2

years of age were most susceptible for UTI.

Level of awareness on refractive errors among ammetropic medical students in a medical college in Puducherry
Ramesh Sandhiya, Hannah Ranjee Prasanth

Introduction: Refractive errors are a common and important cause of poor vision in Asia, myopia being the commonest among them. The global prevalence of refractive errors was estimated to be about 800 million to 2.3 billion. Medical students are a selected population who are subjected to extensive near work such as reading and writing, which adds to the progression of myopia in adulthood. This study was conducted to determine the refractive status of each eye of ammetropic medical students and assess their knowledge, attitude, awareness and practices with regard to refractive errors.

Methods: Refraction for each of the 100 students was done objectively using autorefractometer and retinoscopy followed by subjective refraction using Snellen's chart and trial set. The refractive power of spectacles was obtained using neutralization method. Each student was then given a pretested questionnaire to fill in order to test their knowledge, awareness, attitude and practice regarding refractive errors.

Results: Simple myopia was found to be the most common refractive error in both the eyes,(52%-right eye, 49%-left eye) followed by Compound myopic astigmatism(39%-right eye,43%-left eye) and simple myopic astigmatism(7% -right eye,8%-left eye). A large number(76%) of students had accurate correction for their refractive error. Only a small proportion (27%) of the students knew the refractive power of their corrective glasses correctly. 85% of the students were using spectacles and 59% preferred only spectacles as a mode of correction. 62% of the students thought that refractive errors are genetic. Only 29% of the students knew about the complications of their refractive error.

Conclusion: In this study, simple myopia was found to be the most common refractive error. Only a few students knew the refractive power of their corrective glasses correctly. Similarly,the knowledge on complications of their refractive error was poor. However the knowledge, attitude ,awareness and practice regarding refractive errors showed a positive trend with increasing year of medical education. Therefore, the education system needs to be strengthened right from schooling, emphasising on refractive errors and their sequelae.

To study the chromosome abnormalities in pupils attending special schools in Tumkur district and to correlate with mental retardation
Arjun VA, Anupama D

Introduction: Mental Retardation is defined as a condition of incomplete development of mind, characterized by impaired developmental skills that contribute to the overall level of intelligence. Chromosomal abnormalities are known to be an important cause of severe mental retardation which affects about 1-3% of the population. The highest incidence is in school children. Children may be often referred to special schools after a period in normal schools, when their difficulty in coping becomes apparent. A cytogenetic survey in them will give us the clue regarding the the etiology of the condition

Methods: Chromosome analysis is performed as an investigation to know the etiology of the condition. With the written consent from the parents, the children were subjected to a detailed clinical examination at school. Blood samples were obtained and karyotyping was done at cytogenetic laboratory at Department of Anatomy, Sri Siddhartha Medical College, Tumkur.. Results are tabulated

Results: Of the 25 pupils studied, 7 were girls and 18 were boys. A total of 4 ie 16% of the cases revealed an abnormal karyotype (2 boys & 2 girls) . There were 3 Down's syndrome cases with Trisomy 21 in 2 (1 boy & 1 girl) & Trisomy 21 with translocation ,47,XY,der(15;21), (q10;q10) +21 in 1(boy). Another girl had a balanced translocation with karyotype 45,XX ,der(14;21) (q10;q10) who was one of the 25 who had no dysmorphic features ,but had a chromosome abnormality. The advantages of chromosome testing in children with developmental delay in whom the aetiology is not evident clinically are discussed.

Conclusion: In the study, the autosomal aberrations were seen. Trisomy 21 was the most frequent of all. The control of genetic diseases should be based on integrated strategy combining best possible treatment and prevention through community education, population screening, genetic counselling & availability of early diagnosis

To evaluate the factors affecting visual outcome in patients who underwent cataract surgery
Ahalya Parthasarathy

Introduction: The primary objective is to assess the visual outcome of the patients who have undergone cataract surgery. To evaluate the various factors that could affect the visual acuity in a person who has undergone cataract surgery.

Methods: A retrospective study was conducted Collecting pre-existing data from case sheets.Study Population included all the persons who have undergone cataract surgery in PSG Hospital from the month of January 2011 to June 2011.Study Locale was in the PSG Hospitals, Coimbatore. A convenient sample size was taken. All Patients who have undergone cataract surgery were included in the study.Patients having significant pathology like macular degeneration,diabetic retinopathy, chronic glaucoma that would produce poor outcome were excluded from the study.The medical records of each patient who had undergone cataract surgery during the study period was reviewed and the following information was collected Patients name, sex and age,The type of cataract,Visual acuity recorded pre-operatively,Type of cataract surgery,Efficacy of IOL using A scan The incision site and length,The post operative visual acuity,Duration of the study was 2 months.

Results: In my study the following factors played a major contribution in the outcome of cataract surgery Efficacy of a scan, the incision length and the incision site.73% of them on whom a scan was not done had poor vision.A superior temporal incision is preferred site since 70% on whom this incision was used did not develop significant astigmatism post operatively .A smaller incision size(6.5mm) was preferred compared to a larger sized incision(7.5mm) ,around 63% of them on whom a smaller incision (6.5mm) was used did not develop significant astigmatism post operatively.

Conclusion: Various factors play a role in affecting the visual outcomes in a patient who have undergone cataract surgery, the major contributors being the efficacy of the A scan, the incision site, the incision length. This study concludes that a smaller length of incision ,a superior temporal site of incision and a definite a scan

preoperatively are factors that could contribute to a good visual outcome in a patient undergoing cataract surgery.

Intestinal parasitic infections in pre school and school going children from rural area in Puducherry
S Hema, S Umadevi, S Pramodhini

Introduction: Parasitic infections are regarded as a serious public health problem, as they cause iron deficiency anaemia, growth retardation and other physical and mental problems. This study mainly explores the socio demographic, environmental and behavioral sanitary habits which favour these infections. We find the necessity as the school going children are more prone to get infected with various routes of transmission and the results obtained will help the school authority to adopt deworming measures.

Methods: This is a cross sectional study with a total of 60 children comprising of 30 pre-school and 30 school going children between the age groups 2 and 12 were studied. They were provided with a questionnaire which includes demographic details of the child and a stool container. The questionnaire was filled by their parents and also their consent for the same was obtained following which anthropometrical measures (height, weight) were performed. Microscopic evaluation includes wet mount preparation using saline, iodine and lacto phenol and concentration by formalin acetone sedimentation method.

Results: From the study it was made that 15% of the study participants were infected with one or more parasites. Among the preschool children, the predominant isolate was Ascaris lumbricoides (33%) while among the school going children it was Giardia (44%) and Entamoeba coli (22%). These infections showed statistically significant associations with nail cutting frequency and abdominal symptoms of the children. There is no significant association between socioeconomic status, height, weight and drainage method with parasitic infections respectively.

Conclusion: This study shows that intestinal helminths are prevalent in high magnitude among school going children when compared to pre school children. Early identification of abdominal symptoms helps in the early detection of parasitic infection which helps in effective treatment.

ESBL pathogens in brain
Sachdeva Soumya, Pratibha Sharma, Dimple Kasana, M Deb, Nair Deepthi, Sarthak Sachdeva

Introduction: The '2nd- and 3rd-generation' cephalosporins, presently used in the clinical setting;have been found to be effective against beta lactamase producing bacteria. However resistance against these antibiotics has emerged in the form of ESBLs or the extended spectrum beta lactamases.Objective-Detection of Extended spectrum beta lactamases from archived isolates recovered from sterile fluids 2009-2010.

Methods: The study was performed at the Department of Microbiology, Vardhaman Mahavir Medical College and Safdarjung Hospital for a period of two months. A Total 50 archived multi drug resistant gram negative bacillary isolates from cerebrospinal fluid were randomly selected,preserved from October 2009 to June 2010 were included in the study.These were first subcultured and then antibiotic sensitivity was performed as per CLSI 2009. Disc diffusion test was applied to screen for antibiotic resistance. Screening for ESBL was carried out using DDST (Double disc synergy test), and the results were further confirmed using E strip MIC method.

Results: The archived isolates included samples from male (n=28), female (n=22), adult (n=29) and pediatric (n=21) patients. The isolates belonged to family Enterobacteriaceae- E.coli (n=16), Klebsiella (n=11), Acinetobacter (n=23). The maximum isolates showed resistance to Piperacillin and piperacillin-tazobactam (n=37) followed by ceftazidime and ceftazidime- clavulanate (n=36), on disc diffusion test. Total 72 % of the isolates reported to be positive for ESBL. The highest ESBL producers were recorded in E.coli (87.5%),followed by Klebsiella (72.72%) and then by Acinetobacter (60.86%). Out of the total isolates, 10% were found to be resistant to imipenem and positive for MBL by the E strip method.

Conclusion: This study elucidates the wide prevalence of the ESBL producing bacteria which are now being recovered from CNS infections and also that MBL resistance is the current budding threat to mankind. Acknowledgement- This study was carried out as an ICMR STS 2010 project.

Prevalence of celiac disease among first-degree relatives of celiac disease patients in north India
V Kaul, V Midha, A Sood

Introduction: Studies have shown that first-degree relatives of patients with celiac disease are also at a high risk of developing this disease. Early diagnosis is crucial for the prevention of long-term complications in such cases. This study aimed at determining the prevalence of celiac disease among the First-degree relatives of known cases of celiac disease.

Methods: First degree relatives (parents, siblings, and offspring) of 40 patients with CD diagnosed as per modified ESPGHAN criteria were offered family screening and tested for serum IgA anti-tissue transglutaminase (anti-tTG) antibody. Those who screened positive were advised duodenal biopsy taken through upper GI endoscopy. Subjects with characteristic histological findings and showing improvement on follow-up were labeled as having celiac disease.

Results: We identified 115 relatives of 40 index cases of Celiac Disease, out of which 90 (78.26%, including 44 parents, 18 siblings and 28 offsprings) consented to participate. Anti-tTG was positive in 23 out of these 90 relatives (25.55%). The maximum seroprevalence was seen amongst the siblings (50%, 9/18) followed by the offsprings (25%, 7/28) and the parents (15.9%, 7/44). On subsequent questioning 10 subjects (43.48%) reported to have some symptoms (extra-intestinal) consistent with CD, 7 subjects (30.43%) had a history of diarrhoea while 6 subjects (26.09%) reported not to be having any symptom consistent with CD. Of all the seropositives, 16/23 (69.56%) agreed to undergo an endoscopic biopsy, amongst which 13 had histological changes suggestive of CD (2 had Marsh II, 1 had Marsh IIIa, 3 had Marsh IIIb and 7 Marsh IIIc). Thus, the overall prevalence rate of Celiac Disease among the first degree relatives was found to be 14.44% (n=13/90) with the maximum prevalence being amongst the siblings (27.77%, 5/18) followed by the offsprings (14.28%, 4/28) and then the parents (9.09%, 4/44).

Conclusion: There is a high prevalence of CD in the first-degree relatives, particularly siblings of patients with CD in north India suggesting need for screening program for relatives of CD.

Do fast paced cartoons have an impact on young child's immediate motor executive function?
R Vijaya Vinodhini

Introduction: There is increasing concern about the behavioral and cognitive effects of watching television in childhood. Fast-paced cartoons seem particularly likely to have a negative impact on attention.The aim of my study was to examine whether television viewing has any impact on the immediate motor executive functions of a pre-school going child.

Methods: My study was a randomized blinded control trial conducted during june-july 2012 in an English medium school in Pudhucherry. We obtained permission from the school authorities; the teacher of the class was briefed in detail about the study. We got consent from the parents and they were given a Performa to be filled and returned it with the child to participate in the study. 60 children were selected and randomised into three groups (simple randomisation). The first group was shown a fast-paced cartoon, Second group was shown a slow paced cartoon and third group was asked to draw/colour, each for 10 mins. Each child's motor executive functions were tested using three tests :They are: Separating 3 grains from a respective group from a bowl containing 24 grains, Completing a 4 piece puzzle and making a tower(8) with building blocks.

Results: We found that the children who watched fast paced cartoons took more time to finish the task assigned to them than other two groups.This was statistically significant in the second task(puzzle).The reason being that the task of completing the puzzle was difficult than the other two tasks and children who watched fast paced cartoon had more difficulty in completing a difficult task like completing the puzzle.

Conclusion: Ten minutes of viewing a fast paced cartoon had immediate effect on the motor executive functions of a young child and our study offers a window of understanding of television viewing behavior through which potential strategies can be made to help Indian children.

Hearing evaluation in mobile phone users
John Christian S, P Karthikeya, Arijit Audhya

Introduction: Mobile phone usage is over 5.6 billion worldwide.India holds second position with about 885 million users (i.e.)74% of Indian population(Nov'11). Mobile phone is the sound producing device available every moment in every hand we see around. The advanced mobiles with the fancy multipurpose gadgets makes mobiles a part of us,the youths. Do you know? Chronic exposure to sound of more than 90dB can result in permanent hearing loss. Mobile phone may not produce a sound as loud in a fraction, but there is possibility of sound exposure for a long term. This study has been done with an aim to assess the hearing status in chronic mobile phone users and to find possibilities between cell phone use and hearing loss.

Methods: 100 undergraduate medical students were selected based upon criteria of the preliminary questionnaire and subjected to clinical examination to rule out other possible causes of hearing loss and categorized into three groups. (Group1: users for <2hrs./day. Group2: users for >2hrs./day. Group3: minimal or non-users). The following non-invasive procedures were done to assess the hearing status; Pure tone audiometry, Otoacoustic emissions(DPOAE), Brain Stem Evoked Response Audiometry(BERA).

Results: DPOAE: Absent OAE; both ears =39, right alone =16 and left alone =18. BERA: Presence of loss;18 of study population(5 in both ears). Further,On gross comparison Individuals in group I (<2hrs./day) & group II(>2hrs/day), loss is found in both but the proportion is noted to be more in group II.

Conclusion: In this study, most of the study population was found to use mobile phone at least for 30mins or more every call and were assessed having a hearing loss(mild/asymptomatic), (i e.)"Intensity of hearing loss is found to be directly proportional to the duration of usage and sound exposure of more than that regulated as safe".

Peak expiratory flow rates in semi urban school aged children 6 – 12 years of age
S Arun Kumar, Venkatesh

Introduction: Peak flow meter is a simple and inexpensive device which can be used in and out of hospital setup to determine peak expiratory flow rates (PEFRs). In this study, we attempt to study the PEFRs among school aged children (6-12 years) from a nearby semi urban area in Puducherry with special reference to anthropometry and exposure to air pollution.

Methods: A group of 350 Healthy school children between the age groups 6 and 12 are studied. They were provided with a questionnaire which includes demographic details of the child. The questionnaire was filled by their parents and also their consent for the same following which anthropometry (height, weight, BMI, waist circumference and waist hip ratio) and PEFR (using Wright's peak flow meter) were performed.

Results: The mean PEFR is significantly lower in both boys and girls of all ages exposed to pollution compared to those not exposed. Children with respiratory infection who were exposed to air pollution had significantly low mean PEFR compared to those not exposed to pollution. No correlation was seen for head circumference, waist circumference and waist hip ratio. The mean weight in the pollution group was significantly lower than the no pollution group, however, the mean height was not significantly different in both groups.

Conclusion: Monitoring PEFR helps to detect and prevent abnormal lung function in them. The PEFR rates for children in this geographic area have been defined and would serve as baseline data for further studies. There is an urgent need to improve the air quality and nutritional status of children living in semi urban areas of Puducherry to improve their lung function.

Occurrence of TEM, SHV and CTX-M β lactamases in clinical isolates of Proteus spp. in a tertiary care centre
Mohit Chaubey, Suchitra Shenoy M

Introduction: Extended spectrum beta lactamases (ESBL) are responsible for increased resistance to third generation cephalosporins. Proteus species is an important cause of both community acquired and nosocomial infections. The Proteus spp. is usually susceptible to beta lactam drugs but there is progressive increase in beta lactam resistance and recently ESBLs are also fast spreading to this species specially TEM type. This study was conducted to study ESBL production and occurrence of TEM, SHV and CTX M beta lactamases in clinical isolates of Proteus spp. in a tertiary care centre.

Methods: This prospective hospital based study was carried out in Microbiology, KMC, Mangalore over 9 months. All non-duplicate consecutive Proteus isolates were identified and antibiotic susceptibility testing done. ESBL detection was done by double disk synergy method and TEM, SHV, CTX M genes were detected by PCR.

Results: 84 Proteus isolates from urine (29), blood (1), respiratory secretions (2), tissue (20) and exudates (47) were included in the study. 20.2% (17) were ESBL positive by disk synergy method. CTX M was present in 6, TEM in 2 and both in 9 isolates. SHV was not present in any isolate.

Conclusion: Our findings showed that 20% of clinical isolates of Proteus spp. were ESBL producers. 52% of ESBL positive isolates carried both TEM and CTX M genes followed by CTX M alone (35%) and only 11% had TEM alone. This stresses on the fact that ESBL detection should be done routinely in Proteus isolates and the genotype surveyed periodically for better management.

The 'Fearful trio' of infections in hemodialysis patients: an added insult to the injury?
Aashima, Kranthi Kosaraju, Sameer Singh Faujdar, Ravindra Prabhu

Introduction: Viral hepatitis and HIV are common in patients receiving haemodialysis and are significant causes of morbidity and mortality. There is a paucity of epidemiological information regarding HIV, HBV and HCV infections among hemodialysis patients in India. This study was performed to estimate the occurrence of HIV, HBV and HCV infections and co-infections in hemodialysis patients and compare the risk factors with the non-infected group.

Methods: A retrospective study was performed on patients receiving hemodialysis at our hospital for a period of 9 years. A sample size of 55 cases and 55 controls receiving haemodialysis were included. A patient was considered as a case if he tested positive for either HIV, HBV or HCV. A patient was considered as a control if he tested negative for all the three viruses. Findings of serological tests for Hepatitis viruses and HIV were correlated with renal and Liver function tests. Statistical analysis was done using SPSS.

Results: The occurrence of HBV, HCV and HIV infections in hemodialysis patients in our study was 1.61%, 1.18% and 0.74% respectively. The total occurrence of co-infections in our study was found to be 7.2% among which, majority (3.6%) were with HBV and HCV, followed by 1.8% for both HBV and HIV as well as for HCV and HIV. No patient was found to be positive for all 3 viruses. There was a statistically significant (P=0.008) difference between the cases and controls with respect to duration of dialysis and a significant correlation between abnormal AST and ALT values when compared between cases and controls.

Conclusion: Hepatitis and HIV infections, though less frequent, have a significant bearing upon the general condition of hemodialysis patients. The finding that the duration of dialysis is a significant factor in acquiring infection also highlights the importance of regular surveillance in dialysis units.

Oxidants and antioxidants in health and disease
T Azhalathithan, Ayarin Glorida Stephen, Ramya A, Ravi Kiran BS

Introduction: Free oxygen radicals formed during physiological and pathophysiological metabolism are balanced by a similar rate of their consumption by antioxidants. Although their excess production may cause oxidative damage on biological molecules, cell membranes and tissues, their generation is inevitable for some metabolic processes. Free radical-mediated oxidative damage has been implicated in the pathogenesis of a large number of diseases including ischemia-reperfusion, cancer and various types of inflammation etc.

Methods: In the present study was conducted in Sri Lakshmi Narayana Institute of Medical Sciences, Puducherry. Bharath University. To asses oxdative stress marker(MDA) and anti oxdant(vitamin C) in diabetics(10 nos) ischemia-reperfusion(10 nos) and inflammation (10nos)were included in the study.

Results: We found increased MDA levels and decreased Vitamin C levels in all the groups (p<0.0005).

Conclusion: The most important lipid phase antioxidant is probably vitamin C and E, Apart from ascorbate; other antioxidants are present in plasma in high concentrations. Uric acid, Albumin is the predominant plasma protein and makes the major contribution to plasma sulphydryl groups, although it also has several other antioxidant properties. Antioxidant defence systems plays a key role in protecting against oxidative damage. These processes appear to be disordered in many conditions, and a possible hypothesis may be constructed implicating oxidative stress as a cause of tissue damage. Understanding of the biochemical events occurring at a cellular level to influence oxidative damage is required to guide future therapeutic advances. The therapeutic use of antioxidants is now widespread. Some of these have been shown to be successful, but many appear to have no or little benefit, in terms of being beneficial to general health or in disease prevention.

Evaluation of pulmonary function tests in normal healthy adults from rural and urban background
Juveria Khan

Introduction: Pollution is present day health problem throughout the world especially in India causing respiratory problems. AIM is to compare the effect of pollution on PFT amongst rural & urban population

Methods: The study was conducted over a period of 6 months on hundred subjects belonging to 17 to 35yrs of age from rural and urban population who were clinically examined. These were done by conducting camp in city and village. the best of three trails were taken, The function test included forced vital capacity, (FVC) forced expiratory volume in one second (FEV1), FVC/FEV1, peak expiratory flow rate (PEFR), Maximum ventilatory volume was evaluated by computrized spirometer (MEDSPIROR).pollution levels were taken from AP pollution board. Exclusion Criteria: patients of cardiopulmonary disease & on drugs suppressing respiration. The statistical analysis was done by a statistion

Results: Pollution level in the city & village were 100μg/m3 & 50μg/m3 as taken from AP pollution control board. FVC: urban predicted 3.23+0.8, actual 2.61 & rural predicted- 3.05+1 actual- 2.8+2. FEV1: urban predicted 2.6+1 actual 2.02+0.6 & rural predicted 2.76+0.8 & actual 2.03+0.4. PEFR: urban predicted 7.85+1.7 actual 5.85+1.8, rural predicted 7.8+2.4 actual 5.96+1.1. FEV1/FVC: urban predicted 81+0.7 actual 73+21 rural predicted 83+5 actual 80+2.8. MVV: urban predicted 137+32 actual 126+19 rural predicted 139+40 actual 127+31.All parameters were decreased in urban in comparison to rural which is statistically highly significant (p 0.001)

Conclusion: Since the results are very significant the present study revealed the impact of pollution on lung functions i.e people living in less pollution(rural) had better indices than those in more pollution(urban)

Prevalence of internet addiction in teenagers and its relationship with social anxiety and depression

Rachna Shanbhag, Rakesh Ghildiyal, Shaunak Ajinkya, Darpan Kaur

Introduction: Among adolescents, the internet is observed to be increasingly adopted as a readily accessible means for information retrieval, entertainment and socialization. "Internet" use has increased dramatically in recent years. Internet addiction is characterized by an increasing investment of resources on internet-related activities, unpleasant feelings when offline, increasing tolerance to the effects of being online and denial of problematic behaviors. The presence of relatively immature cognitive control makes adolescence a period of vulnerability and may lead to a higher incidence of affective disorders and addiction. According to previous reports 1.4% to 17.9% of adolescents have Internet addiction in both Western and Eastern societies. As reported in a study by Kormas et al, Depression and Social anxiety are found to be predictive of pathological use of the Internet in adolescents. The aim of our study was to assess the prevalence of internet addiction in teenagers and to study the prevalence of social anxiety and depression in them.

Methods: This study was an open label, cross sectional survey carried out in high school students between the age group of 13 yrs to 19 yrs in Navi Mumbai. Informed consent was taken from the participants who were administered a self- designed proforma, Young's internet addiction test, Liebowitz social anxiety scale and Beck's depression inventory-II. 183 completed forms out of 200 were statistically analyzed.

Results: 51.9% teenagers were found to be suffering from Internet addiction. Out of these 52 males and 43 females who were mild to moderate internet addicts suffered from Social Anxiety. 23.15% of these internet addicts had depression.

Conclusion: This study shows significant prevalence (p<0.05) of internet addiction among teenagers with depression and social anxiety being present in them, indicating a significant relationship between them. For better understanding and formulation of interventions for internet addiction there is need for further studies.

Study of carriers of Pseudomonas aeruginosa among health care workers from intensive care units in a tertiary care hospital

Jayanth SS, Yogeesha Babu KV

Introduction: Pseudomonas aeruginosa is one of the most common pathogens in ICUs known to cause nosocomial infections with higher mortality and morbidity with increasingly limited therapeutic options. Limited data is available on P. aeruginosa carriers and their role as source and/or reservoir of nosocomial infections. The present study was conducted to assess the incidence of carrier rate and Antibiogram typing of P.aeruginosa from healthy health care workers(HCW) from different ICUs and to assess role of carriers as source and /or reservoir of nosocomial infections.

Methods: Three hundred and twenty eight specimens from 82 Health care workers(72 staff nurses and 10 attenders) and 200 specimens from 50 HCWs from general wards were collected from nose, throat , axilla and hands and processed by standard laboratory procedures. The Institutional Ethical Committee approval was obtained and specimens were collected from Health care workers with informed written consent. Antibiogram typing was done. Association of carriers with cases done by P. aeruginosa with identical antibiogram

type from carriers and cases. Distribution of carriers was assessed by Chi-square test.

Results: Incidence of P. aeruginosa carriers among HCWs was 10.9%, (9.72% Vs 20%, P=0.30 NS) in nurses and attenders and (7.4% Vs 12.74% P=0.37 NS) among male and female HCWs respectively. Carrier rate was highest, 30.76% in PICU and at throat ,8.5%.P. aeruginosa carriers were not observed from General wards. Four antibiogram types of P. aeruginosa with temporospatial association with 31 nosocomial infections were observed. Although, carrier rate was highest in PICU with no carriers from MICU and ICCU, distribution in different ICUs was not statistically significant.

Conclusion: P. aeruginosa carriers (HCWs) act as source / reservoirs of nosocomial infections in Intensive care units (ICUs). Further studies are needed to explore other sources / reservoirs of P. aeruginosa namely, environmental sources and colonized patients.

Awareness and perception regarding eye donation in rural Pondicherry.

E Ram Prasath, Rajkumar Patil

Introduction: The value of anything is realized only when it is lost, one such thing is vision. Though all the causes of blindness can't be cured, corneal blindness can be reverted by corneal transplantation, for which a suitable donor cornea is required at right time. There is lack of awareness about eye donation among general population, so practice of eye donation is also lacking. Studies about awareness and perception of eye donation among general population are lacking in India, keeping this in mind, to determine the awareness and perception regarding eye donation in rural Pondicherry, the present study was conducted.

Methods: A cross sectional study was conducted at Rural Health and Training Centre (RHTC) of Community Medicine department. Total 196 adults visiting to RHTC were interviewed after obtaining informed written consent. Data were collected by investigator using pre-designed and pre-tested questionnaire in local language (Tamil), supervised by the guide. The data were entered and analyzed in 2 months. Chi square test was used for statistical significance between awareness and socio-demographic factors like age, sex, education, occupation etc. Ethical permission was obtained before conducting the study.

Results: Out of 196 participants, 80.6% subjects had ever heard (aware) about eye donation. Education and occupation had significant association with awareness. Main source of information about eye donation was Television (65.2%). The employed persons had significantly more awareness about the correct timing to donate eyes. But in case of willingness younger people were more willing to donate the eyes than middle age groups. Among the 196 participants, only 32 had already pledged for eye donation.

Conclusion: Although the awareness is good in this population, the quantum of people pledged is very low. To make the dream of converting the awareness into pledging and procurement of eyes, the knowledge about eye donation is highly required.

Prevalence of Helicobacter pylori infection in pregnant women with anemia

Induja M, Seetish Ghose, Stephen Selvaraj

Introduction: Anemia is worldwide health crises concerning both

the developed and developing countries with major consequences to infants and pregnant women. It is estimated that around 50% of the anemia during pregnancy are due to iron deficiency. Several reports have indicated an association between H.pylori infection and Iron Deficiency Anemia. It has also been reported that treatment of H.pylori infection may lead to an improvement of anemic level without iron supplementation. Hence the study was undertaken to find the prevalence of anemia in pregnant women and its association with H.pylori infection.

Methods: It is a descriptive cross sectional study. A random population of 260 antenatal mothers visiting our OBGY out-patient department during july - august (2012) were examined for the sevierty of anemia. Those antenatal mothers with moderate to severe anemia of Hb <9gm% (n=69) were the study sample. They were screened for H.pylori infection by stool antigen test.

Results: Among the 260 patients screened during the period of study 162 (62.3%) patients were found anemic. When 60 patients were screened for the H.pylori infection 31 (51.7%) of them were found to be infected.

Conclusion: A high prevalence of H. pylori infection was seen in pregnant women suffering from anaemia of Hb% <9gm% with a significant association with socio-economic status, severity and parity.

To assess the applicability of (i)Cockcroft-Gault formula & (ii)MDRD-6 variable formula for estimating GFR in chronic kidney disease patients.
Anurag Sachan, M Bannerjee

Introduction: In patients of Chronic Kidney Diseases monitoring and detection of slight-to-moderate changes in GFR is a prerequisite for an optimal patient management.Several equations have been developed for estimating the GFR. However, little is known about the application of these formulas in the patients of chronic kidney disease.

Methods: Total of 60 subjects - 30 CKD patients and 30 normal subjects were carefully selected and underwent GFR evaluation by the Cockroft & Gault method,MDRD method and 99mTc-DTPA clearance method.Results were obtained and analysed using bland and altman analysis.

Results: The mean of the differences of the readings obtained between Cockroft & Gault method and standard 99mTc-DTPA clearance (11.53 for total subjects p value<0.05,4.51 for CKD patients p value>0.05 ,18.55 for normal subjects p value <0.05) and mean of the differences of the readings obtained between MDRD formula and standard 99mTc-DTPA clearance (7.75 for total subjects p value<0.05,5.00 for CKD patients p value>0.05,10.50 for normal subjects p value<0.05).The MDRD formula is more in accordance to GATES GFR but C&G formula is more precise as seen by standard deviation which is less for C&G method than MDRD formula for all subjects (C&G=22.69 ;MDRD=25.93)as well as diseased (C&G=17.75; MDRD=24.13) and normal (C&G= 25.10;MDRD=27.76) subjects separately.

Conclusion: Our observation was that for the chronic kidney disease patients the C-G and the MDRD method both gave GFR closer to the true GFR . But for normal or the control cases C-G method clearly estimates GFR much more accurately and precisely than MDRD.

Relationship of sleep duration with QT interval in normal weight and obese medical students
Hariprasad GV

Introduction: Sleep deprivation has become a major concern in the modern era. Chronic sleep deprivation is a cause for cardiovascular abnormalities. Sleep duration is found to have an inverse relation with obesity. Obesity, itself has also been reported as a cause for QTc prolongation and thereby leading to SCDs. This study was done to measure QT and QTc intervals in normal weight and obese and correlate the effects of sleep loss on it.

Methods: This cross sectional study with a sample consisting of 60 subjects were grouped based on Quetelet index into normal weight and obese groups which were further sub grouped into Group A with 2-4 hrs, Group B with 4-6 hrs. and Group C with 6-8 hrs. of sleep duration, respectively. The mean and standard deviations were calculated and by 2 tailed t-test for equality of means, significance was established.

Results: was found that the QT mean in Group A normal weight was slightly increased compared to that in Group B normal weight individuals. In all groups, QTc interval was within normal limits except in group A obese subjects who were severely sleep deprived and showed a borderline QTc prolongation of 431±31.In all other groups, the QTc mean was increased in obese compared to normal weight subjects and it was significant in all sleep deprived subjects. Intergroup correlations showed that increase in QTc was statistically significant for all sleep deprived individuals.

Conclusion: Our study concludes that sleep deprivation has led to increase in heart rate and thereby QTc interval in both normal weight and obese. Mild or moderate sleep deprivation affects obese more than normal weight. Severe sleep deprivation combined with obesity may lead to borderline QTc prolongation. Thus, sleep deprivation is an additional risk factor in obese subjects leading to cardiac diseases.

Prevalence and pattern of distribution of types of anaemia among college students of KLE University, Belgaum
Ayant Manglik, Arathi Darshan

Introduction: India is one among the countries with highest prevalence of anaemia in the world. Data from different surveys have shown that prevalence of anaemia is very high (80 - 90%) in preschool children, adolescent girls, pregnant and lactating women. Majority of the studies on anaemia have focussed on rural population but data from ICMR shows high prevalence of anaemia even among the higher socio-economic group. However not many studies on anaemia are conducted on educated families and the urban population. Moreover, the pattern of distribution of types of anaemia had not been dealt frequently. Hence, this study aims to find out the prevalence and pattern of distribution of types of anaemia, among college students of KLE UNIVERSITY, Belgaum.

Methods: A cross sectional study was conducted on 260 randomly chosen students of KLE UNIVERSITY, Belgaum. After obtaining an informed consent, data regarding the socio – demographic profile and clinical presentations was obtained with the help of predesigned questionnaire. Venous blood sample was collected and haematological profile was studied with different parameters using a three part cell counter.

Results: Out of 260 students anaemia was found in 74(28.46%), of which 17/103 were males (16.50%) and 57/157 females (36.31%). Out of 74 anaemic subjects 49(66.21%) were microcytic hypochromic, 22(29.72%) were normocytic hypochromic and 3(4.05%) were macrocytic hypochromic. Of all anaemic subjects 36(48.64%) were asymptomatic. Among the symptomatic subjects, poor concentration and easy fatigability constituted the predominant symptoms.

Conclusion: Anaemia is not only the problem of rural or low socio-economic status, but also equally prevalent in educated, urban and higher socioeconomic strata of the society, with high prevalence in females as compared to males, the predominant type being Microcytic Hypochromic. Poor concentrating ability and easy fatigability may adversely affect the students' academic performance. Hence, it warrants further studies on this population.

XRCC-1 gene polymorphism: its association with variation in susceptibility to development of lung neoplasm in human subjects

Debabrtata Mohapatra, Vibha Uppal, Mohit Mehndiratta, RK Grover

Introduction: XRCC-1(X-ray repair cross complementing group-1) gene product XRCC1 protein plays a pivotal role in DNA repair mechanisms. It's a nonenzymatic protein that acts as a scaffold protein by bringing DNA polymerase-ß and ligase-lll together. One of the polymorphisms Arg399Gln (rs=25487 with G¤A conversion) on exon 10 is located at the c-terminal side of its poly ADP-ribose polymerase (PARP) interacting domain which is involved in detection of DNA breaks.Hence wild type 399Arg is expected to be protected against carcinogens as compared to the variant 399Gln. Researches to assess any association of this polymorphism with cancers has given some varied outcomes. We conducted this study to find its association with lung cancer in north Indian subjects.

Methods: Ethical clearance was taken. 50 lung cancer cases were taken from Delhi state cancer institute irrespective of the histology of the cancer. 50 healthy volunteers were taken as controls.DNA isolation: 2ml blood was taken and DNA was extracted using a kit (Zymo Research) as per manufacturer's protocol.PCR procedure:The region containing Arg¤Gln substitution at codon 399 (in exon 10) was amplified by PCR to obtain an undigested fragment of 242 bp using the forward primer 5'- CCCCAAGTACAGCCAGGTC-3' and the reverse primer 5'-TGTCCCGCTCCTCTCAGTAG-3'.RFLP-procedure: The PCR product was digested by MspI (…..C¤CGG….) at 370C over night and resolved on 2% agarose using horizontal gel electrophoresis. Arg/Arg genotype was digested to form 94 and 148 bp fragments while the Gln/Gln missed the MspI restriction site producing only one band. Heterozygous genotypes gave three bands.

Results: Statistical analysis showed that Arg399Gln polymorphism is associated with increased risk of lung cancer in the recessive as well as GGvsAA model but not in the dominant model. Results are-> recessive model [OR=3.54, 95%CI=1.48-8.45, p=0.002]; Gln/Gln vs Arg/Arg [OR=1.51,95%CI=0.43-5.30,p=0.203]; dominant model [OR=0.6,95%CI=0.20-1.89,p=0.157]

Conclusion: It can be concluded that Arg399Gln polymorphism in XRCC1 gene is associated with lung cancer in North Indian subjects

A comparative study of stress among the medical and the dental students

Nivedita Sarkar

Introduction: Medical/Dental Education is perceived as being stressful too. It is characterized by many psychological changes in students. They encounter multiple anxieties in transformation from insecure student to young knowledgeable physician/surgeon. Studies have observed that students experience a high incidence of personal distress during their undergraduate course. Hence it is necessary to explore the determinants of stress and compare the level of stress among Medical and Dental students.

Methods: This cross sectional study sampled in Systematic Random Sampling method, was carried out on 60 students, 30 each of final MBBS & final BDS students of KIMS and VSDC resp., Bangalore, over a period of two months (Aug. to Sept., 2010). Data was collected using self administered questionnaire encompassing Socio-demographic details of the subjects, Stress Response Scale (Verma and Rao, 2004) and Coping Check List (Rao.K., Subbakrishna, D.K and Prabhu G.G (1989)).

Results: In this study, overall stress level and coping level were found to be same among both Medical and Dental students (Stress: Z=0.22, P=0.824; Coping: Z=0.363, P =0.717). Sex wise distribution of the same among Medical students suggests that there is no statistically significant difference between males and females (Stress: Z= 1.931, P =0.054) whereas among Dental students the difference was found to be statistically significant (Z=1.97, P=0.050). There was no significant difference found between sexes in both Medical and Dental students with respect to coping: (Z=0.916, P=0.377 Vs Z=1.04, P=0.940).

Conclusion: Overall stress and coping level was found to be same among both Medical and Dental students. The most common stressors and coping methods were also found to be almost similar among both the groups.There was significant difference in the stress level among male and female Dental students. Female Dental students were the highest in perceiving stress.As final year is most stressful for students, special orientation and guidance to be given from the very beginning of the year. Assistance to the students to use the best possible coping mechanisms at their disposal. In order to facilitate the above, students can be assigned to a mentor(teacher).

Shift medical workers in medical college and hospitals

Ayarin Glorida Stephen, Ramya A, Azhalathithan T, Ravi Kiran BS

Introduction: Shift workers in Medical field usually applies to fixed work at night roster work of specific shift pattern. Increasing of the patients at night times 12 working hours it shows an association between jobs train and psychological job characteristics and 8hrs who are all employees of medical field 8 working hours per day increasing demand for services both as extended those employed traditionally known as white colour occupation like doctor, nurses, technicians. Comparison of non medical day time workers with the medical field shift workers normal biological social diurnal rhythms cause health problems cause shift medical workers.

Methods: The study was conducted in Sri Lakshmi narayana Institute of Medical Sciences paramedical staff and doctors a study population was taken up of the consent form total 60 subjects age ranged from 20 to 45 years were 8 hours working job people were 30 another 30 subjects were working job in the hospital.

Results: Our results of study will provide useful information for the prevention of lipid disorders in the medical shift workers. To conclude our study suggested that only raised levels of Triglecerides,

Cholesterol might be the primary risk factor for the CVD in Indian population capacity with women, men are having high risk in hospital and medical setup, there is no much risk was observed comparing with other setups like industries and companies. our analysis indicates a possible associated between a psychologically demanding job and an unfavourable lipid profile in Indian male workers in medical setup. The logical basis for the applications to atherosclerotic lipid is weak.

Conclusion: In medical job workers are very low risk capacity with industrial job workers. Workers and intelligence are a part of Daily life and more So of fast faced corporate a mental stress is directly related with alteration of serum lipid profile.

Incidence of cystoid macular edema in diabetic subjects, after phacoemulsification and oxidative stress link to its pathogenesis

Anupam Samanta, Premranjan Kumar, Sanghamitra, G Nageswar Rao, Arttatrana Pal

Introduction: Postoperative onset or aggravation of cystoid macular edema (CME) in diabetic patients after extracapsular cataract extraction with intraocular lens implantation is a frequent problem. Interestingly, little is known about the occurrence and prognosis of CME complications in diabetics without (D) or with diabetic retinopathy (DR) after phacoemulsification. Here, we aimed to know the various co morbid conditions and determines anti-oxidant enzyme status, ROS level in incidence of postoperative CME in D and DR patients who underwent phacoemulsification.

Methods: Type 2 diabetes patients who underwent phacoemulsification were followed for a period of 2-8 weeks to assess development of CME that was confirmed by fundus fluorescein angiography and optical coherence tomography and serum levels of anti-oxidant enzymes and ROS level were estimated. All the patients were followed up to 1 year for regular eye check up.

Results: The course of CME was prospectively studied in 30 eyes of 30 consecutive D and DR patients without preoperative CME. The preoperative presence of DR significantly affected the postoperative onset and persistence of CME. CME occurred postoperatively in only 15.78 % of eyes without pre-existing DR and in 27.27% of eyes with pre-existing DR (p<005) and positive association with co morbid conditions like hypertension (p=0.01) and diabetic nephropathy (p=0.05) was observed as well. Catalase activity was highest in DR patients with CME whereas SOD and GSH activity was lowest in the same. D patients had comparatively more SOD and GSH activity than DR patients. The ROS activity was recorded highest in the serum samples of DR patients becoming CME positive.

Conclusion: The present result suggest that after phacoemulsification the chances of CME development in DR patient is more as compare to patient without DR and the development of CME is significantly associated with increased level of ROS, hypertension, and DR, and diabetic nephropathy.

Study of cases of near miss mortality in obstetric cases in tertiary hospital

Satyajeet Joshi, Shilpa Naik

Introduction: The WHO defines maternal near miss as-'A woman who nearly died but survived a complication that occurred during pregnancy, childbirth or within 42 days of termination of pregnancy'.

Methods: A cross sectional institutional study of 32 cases of Maternal 'near miss' mortality was carried out at a Government tertiary care institute in Pune from 1st June 2012 to 31st July 2012.By taking into account the various definitions of maternal 'near miss' a questionnaire was prepared and applied to the cases(consent taken from patient)

Results: It was found that most of the patients were in the age group of 20 to 25 years, and had received secondary education. All women belonged to the lower economic strata of the society and were mostly referred from rural areas. Most of the referrals were from PHCs or rural hospitals citing lack of facilities as the reason for referral. More than 2/ 3rd of the mothers were anaemic. The ratio of primigravida to multigravida was almost the same with the number of primigravida slightly more. Eclampsia/ preeclampsia was the most common cause of maternal near miss with 63% of all women affected by it. Type of delivery was Caesarian section in 53% of the cases.63% of the women required blood transfusion for some or the other reason.46.88% of the women were admitted to the ICU. There were 13 fetal deaths (41%) with just 21% of women delivering a normal baby. The case fatality ratio was 1:5.3 or 18.75% and the prevalence of maternal 'near miss' was found to be 2.75%.

Conclusion: The Research will help the authorities carry out various Health Schemes to improve lives of women.Eclampsia/preeclampsia is the leading cause of maternal near miss in this institute This study if carried forward, will tremendously boost the understanding the hazy condition of 'Maternal near miss' and provide a clearer definition.

The prevalance of hypothyroidism during pregnancy and its effects on the newborn

Anudeep Yekula

Introduction: Hypothyroidism is much prevalent during pregnancy and leads to several complications both to the mother and neonate. Increased demand along with other predisposing factors lead to maternal hypothyroidism. Preeclampsia, placental abruptions, low birth weight etc are the common complications, slower motor development, poor neuro-psychological development and eventually cretinism are the neonatal complications. I intend to establish the prevalence of hypothyroidism in third trimester antenatal women, identify the complications in pregnancy and evaluate the thyroid status of the newborn with maternal hypothyroidism.

Methods: This is a hospital based longitudinal study carried out at Antenatal Ward in Government General Hospital (GGH), Guntur for a period of 2 months, (1st July to 30th August 2012).All third trimester antenatal women are recruited into the study excluding those with nephrotic syndrome, chronic renal insufficiency and thyrotoxicosis. Procedure: Informed consent, questioneer, clinical examination, blood sample collection, screening for hypothyroidism, screening for neonatal hypothyroidism and Evaluation of the data.

Results: Screening 204 antenatal women 15 were hypothyroid which brought the prevalence to 7.36%. Factors like iodine, obesity etc were taken criterion against hypothyroidism and analyzed, which resulted in a positive output showing that non iodine usage and obesity favoured hypothyroidism. There is also a direct proportion between hypothyroidism and age. 9 out of the 15 antenatal women had pregnancy complications. There were 2 fetal deaths. Out of the 13 newborn of maternal hypothyroidism 7 were affected.

Conclusion: There is a positive correlation between hypothyroidism and maternal age,non iodine usage and obesity.The prevalance of

hypothyroidism in pregnancy is 7.36%.60% of hypothyroid mothers had pregnancy complications and only 40% newborn of maternal hypothyroidism were normal.Thus maternal hypothyroidism can be fatal for both mother and the baby.

Microbiological study of lower respiratory tract infections in intensive care unit

Aakash Verma, GN Agarwal

Introduction: Rate of infection in ICU which is generally nosocomial is 3-5 times higher than rates in other hospital wards. Ventilator associated pneumonia (VAP) is the most common nosocomial infection in ICU patients. ICU infection study gives an idea of success or failure of infection control programs. The present study evaluates lower respiratory tract (LRT) infections in ICU with their antimicrobial susceptibility pattern.

Methods: Endotracheal tube aspirate, sputum and blood were collected in LRT infections and processed as per standard microbiological techniques. The isolates were subjected to anti-microbial susceptibility testing. ß-lactamase production was also studied.

Results: Of the total 60 pneumonia cases, 50 were ventilator associated pneumonia (VAP) and 10 were other pneumonia cases. Acinetobacter spp and Pseudomonas aeruginosa were predominant pathogens followed by Klebsiella pneumoniae and Staphylococcus aureus. High drug resistance was noted in the isolates. ESBL production was seen in two Klebsiella pneumoniae isolates and MBL production was observed in four Acinetobacter isolates and one Pseudomonas aeruginosa isolate

Conclusion: Gram negative bacilli specially non-fermentors are the common pathogens in lower respiratory tract infection in ICU. Antibiotic resistance mediated by ß-lactamase production is becoming a worrisome problem

Study of HDL subpopulations in cardiovascular diseases

Thanushree Rao Khurdhula, Aparna Varma Bhongir, P Naveen Chander Reddy

Introduction: Cardiovascular diseases are a major cause of mortality both in developed as well developing countries. It's estimated that there would be around 62 million patients with CAD (Coronary artery disease) by 2015 in India, and out of these 23 million would be patients younger than 40 years according to National Commission on Macroeconomics and Health (NCMH). Several prospective epidemiological studies conducted in various countries reported, a consistent independent inverse relation of HDL cholesterol levels and CAD event rates. HDL subpopulation in Indian scenario has to be exclusively studied as Indians are more prone to cardiovascular disesases . A study on HDL subpopulation showed that people with CVD events had significantly lower HDL-C, apoA-I, and large cholesterol-rich HDL particle levels, significantly higher Triglyceride, and small poorly lipidated HDL particle levels than subjects without such events.3 Now the question arises "lowering or elevation of which HDL subfraction is making Indians more susceptible to cardiovascular disorders?". A recent research on prevalence of dyslipidemia in Young adult Indian Population proved that, HDL-c was abnormally low in 64.2% males and 33.8% in females. Does lowering of HDL-C makes them more prone to CHD? Thus the pattern and prevalence of HDL subpopulation should be studied extensively to reduce the risks factors of CHD.

Methods: The study was a case control study on 120 patients visiting the Cardiology OPD of Mediciti Hospitals. 30 individuals grouped as risk group(individuals suffering from Hypertension , Diabetes Mellitus, Hypercholesterolemia,Obesity),60 patients suffering from CAD events (Acute group 30, Chronic group 30), and 30 Controls.5 ml of fasting venous sample was collected from patients and Fasting Plasma Blood Sugar, Lipid Profile and HDL subfractions were assessed. After collecting the blood specimen, measurement of blood pressure and BMI, a structured questionnaire was administered to the subjects.The data was collected, processed in MS-Excel and checked for the distribution. The data was more or less normally distributed and any skewness if at all was very minimal. Hence the means of variables in the study groups were compared with that of controls using one way analysis of variance (ANOVA). A p- value of <0.05 was considered statistically significant

Results: The mean HDL2 fraction was higher than the mean HDL3 fraction in all the groups. However, the mean HDL2 fraction was 2.7 times higher than the mean HDL3 fraction in the control group while this ratio was 1.2 in risk group, 1.3 in acute CAD group and 1.22 in chronic CAD group. In one control subject we obtained equal values for HDL2 and HDL3. However in seven subjects we found the HDL2 values were much higher and 3 to 6 times higher than HDL3. In all these seven subjects the HDL fractions were analysed again and the values obtained matched with the previous assay. In five subjects in risk group, two subjects in acute CAD group and nine subjects in chronic CAD group, the HDL3 fraction was higher than the HDL2 fraction. We further studied the associations of HDL sub fractions with various risk factors adjusting for confounders by running a multiple regression analysis.

Conclusion: From the present study it can be concluded that the cardio protective role of HDL can be attributed to HDL2. However, since in the present study, sample size is low, a large scale population study is required to reinforce the findings of the present study. Future prospects for similar such studies include qualitative and quantitative evaluation of the protein and lipid content in the HDL sub fractions, their role in cardio vascular disease; assay of activities of LCAT and other enzymes associated with HDL metabolism and associated gene polymorphisms which may give further insight into pathogenesis of CVD.

Incidence of extended spectrum beta-lactamase producing organisms in neonatal septicemia

Rajdeep Singh Uppal

Introduction: Neonatal mortality in developing countries accounts for 30 – 50 % of infant deaths. Almost 20% of neonates develop sepsis and 1% die of sepsis related causes. Frequently isolated causative pathogens (Klebsiella pneumonia, Staphylococcus aureus, Pseudomonas, etc) known to be ESBL (Extended Spectrum Beta-Lactmase) producers are resistant to third generation cephalosporins, penicillins as well as to monobactams. The rampant irrational use of ordinary and high end antibiotics is responsible for this bacterial resistance. Hence, it becomes imperative to study these organisms and prepare an effective antibiogram policy to serve the helpless neonates.

Methods: Fifty suspected cases from Neonatal intensive-care unit (NICU) were selected on the basic clinical features based on Early and Late Onset Sepsis. 1-ml aseptically drawn venous blood incubated in 9-ml of Brain-Heart Infusion broth at 37°C for seven days, was observed for growth and sub-cultured on Blood agar and

MacConkey's medium. Any organism from sub-culture was identified biochemically. Antibiogram test was done with Extended Spectrum antibiotics - cefpodoxime, ceftazidime, aztreonam, cefotaxime, ceftriaxone. Cefotaxime or ceftazidime disks with or without clavulanate were used for phenotypic confirmation as advocated by CLSI. A difference of >5mm between the zone diameter of either cepahlosporin disk and its respective cephaoshorin/ clavulanate disk was taken as phenotypic confirmation of ESBL production.

Results: 16% of 50 samples showed positive cultures, 75% were gram negative and rest gram positive organisms. 25% of culture positive isolates were ESBL producer, Klebsiella spp. and E.coil being 12.5% each. All mentioned antibiotics were resistant to these ESBL producers. ESBL production was confirmed by phenotypic confirmation.

Conclusion: In presence of high resistance it becomes imperative to detect resistance patterns against different anti-microbial agents, for the septic neonates in NICU. With increasing levels of resistance, a careful and constant monitoring of antibiotic usage at regional and national level is sought.

A comparative study on the cardiac functioning of endurance athletes, speed athletes and untrained individuals

Senthil Kumar M, Nagashree R

Introduction: The cardiac functioning varies between different types of physical training. The study compares the cardiac functioning of three groups viz. endurance athletes, speed athletes and untrained individuals by measuring their VO2 max and QRS wave amplitude (ECG) and aims to relate it. It also aims to find out which group has better cardiac functioning, low risk of developing cardiac diseases and in recommending usage of the particular training in enhancing cardiac function.

Methods: 45 Subjects between 15-40 years of age from Coimbatore were grouped into above mentioned three groups (15 in each group) through convenience sampling method based on their training and competitive performance. A prospective, comparative study was done during the period of July-October 2012 after getting their consent. VO2 max was obtained from three tests (bleep test, Uth-Sorensen-Overgaad-Pedersen method and cooper variation method) on three weekends, using specific formula. 12 lead ECG was taken on the fourth weekend and mean QRS wave amplitude was measured using Minnesota code of classification. VO2 max and mean QRS wave amplitude values were compared and relationship with cardiac functioning was established. Then, statistical analysis was done using unpaired (student's) t-test comparing the three groups for both the variables and statistical significance in the particular direction was hypothesized.

Results: The VO2 max(V) and QRS wave amplitude(Q) of endurance athletes were higher than both the speed athletes(V:p<0.0001; Q:p<0.0001) and untrained individuals(V:p<0.0001; Q:p<0.0001) while that of speed athletes were higher than that of the untrained individuals(V:bleep test-p<0.05, other tests-p<0.0001 Q:p<0.05)

Conclusion: Higher VO2 max indicates higher oxygen carrying capacity and higher QRS wave amplitude indicates increased pumping capacity and stroke volume. Thus it is inferred that, either endurance or speed training enhances the cardiac functioning from the baseline individuals significantly and endurance training shows an edge over speed training in increasing the effectiveness of working of heart.

Study of ABO blood groups in ischaemic heart disease patients in and around Davangere

S Niteesh Bharadwaj, Swapnali

Introduction: Obesity, dyslipidemia, hypertension, diabetes mellitus, smoking, stress, sedentary lifestyle, genetic factors are some well known risk factors for Ischaemic Heart Disease (IHD). Considering ABO blood group phenotype as a part of the genetic factor, the research was undertaken to determine whether there is any relationship between ABO blood group and the incidence of IHD in population in and around Davangere.

Methods: The present study was conducted at S.S.I.M.S. and R.C., Davangere. Patients were selected at random, after admission, from the ICCU. Patients of both sexes were selected in the age group of 35 to 75 years. In case series 35 males and 15 female IHD patients were studied. Control group contains fifty age and sex matched individuals with no evidence of any disease. A control group was examined to observe the frequency of blood groups in the general population. In this study ABO blood grouping was done by slide agglutination technique.

Results: The frequency of blood group in control group was as follows 'O' (42%), 'B' (24%), 'A' (22%) and 'AB' (12%). The frequency of blood group in IHD series observed was, 'O' (36%), 'A' group (34%), 'B' (20%) and 'AB' (10%). Though the frequency of 'O' group was more in IHD series, as compared to other blood groups, there was a significant deficit in 'O' group and an overall excess of 'A' group in IHD series, but the difference was not statistically significant.

Conclusion: To conclude, the incidence of Ischaemic Heart Disease is more common in 'A' blood group individuals as compared to other blood group individuals but the association is not statistically significant. This study involved a small number of subjects and hence a larger case – control study could conclusively establish the possible relationship between ABO blood group and IHD.

High resolution melt (HRM) curve assay for rapid detection of thiopurine methyltransferase gene polymorphism (TPMT*3C (719 A>G))

Chiranjeet Singh Khurana, Mohit Mehndiratta, Dinesh Puri

Introduction: Mercaptopurine, azathioprine, and thioguanine, used as antineoplastic agents and immunosuppressants are catabolized by thiopurine methyltransferase (TPMT) enzyme, which exhibits genetic polymorphism. Genotyping patients and the population to which the patients belong, is important for deciding the dosage and thus reducing toxicity. There is a need for faster methods for genotyping. Hence the present study was planned to test the application of High Resolution Melt Curve (HRM) technique for analysis of the gene polymorphism in common TPMT allele TPMT*3C (719 A>G). It is a technique that can differentiate between Wild Type (WT), Heterozygous (HT) and Homozygous mutants (HM) on the basis of differences in melt profile of the PCR product containing that polymorphism.

Methods: Ethical clearance was taken for the study from the Institutional Ethics Committee (Human Research). 2ml of the blood sample was collected from the most accessible peripheral vein of the volunteers after taking informed consent. DNA was extracted using the commercially available DNA Extraction Kit as per manufacturer's instructions. PCR followed by RFLP, using AccI restriction enzyme, was performed to find out the WT, HM & HT for TPMT*3C (719 A>G) gene polymorphism. Different set of primers were designed for HRM

assay. Same DNA samples were also subjected again to PCR and finally to HRM analysis for the detection of TPMT*3C (719 A>G) gene polymorphism.

Results: Till date, screening by PCR-RFLP, we have found only most frequently encountered wild type homozygous variant. When these samples were subjected to PCR and HRM assay they had a very similar melt profile and were clustered together by QIAGEN - Rotor-Gene ScreenClust HRM Software. Our results were reproducible. Further screening is required for identification of other variants which are comparatively less frequent so that HRM can also be developed against those variants.

Conclusion: When carried out with certain stringency our method is an accurate, rapid single tube analysis system with turnaround time of around 90 minutes after DNA has been extracted. It is free from the inherent problems of PCR-RFLP like long turnaround time, incomplete / nonspecific digestion etc.

Real and perceived problems in timely initiation of breastfeeding in a baby friendly hospital
Shalini K, Lalitha Krishnan, Peter Prasanth

Introduction: Breastfeeding is one of the most cost effective interventions for neonatal survival. Delayed initiation of breastfeeding has been shown to increase neonatal mortality. In developing countries, though knowledge of the benefits of breast milk may have increased among mothers, their attitudes are still governed by traditional practices. In India, breastfeeding is near universal but psychosocial and cultural barriers exist, especially in timely initiation of breastfeeding. This study was done to evaluate the real and perceived problems in timely initiation of breastfeeding, among mothers of newborns delivered in a medical college hospital, where baby friendly hospital initiative (BFHI) has been practiced for almost 2 decades.

Methods: This hospital based cross sectional study was carried out over two months from May 2012. 200 consecutive mothers who delivered healthy, normal, singleton, term babies in hospital were included in the study. The pretested questionnaire consisted of three parts viz., socio-demographic characteristics, knowledge and practice of breastfeeding. One breastfeed was observed by the principal investigator within 72 hours of birth in all mothers. The data was entered in EPI7 statistical software and analysed using SPSS for Windows Version 17.0.

Results: The mean age of the mothers was 25.5 yrs (SD: 4.1yrs). Primigravida were 55%. Delivery was normal vaginal for 67.5%, instrumental for 3.5%, and lower segment cesarean section (LSCS) for 29%. All 100% of babies were discharged home on exclusive demand breast feeding. Knowledge of early initiation was significantly better among older (>25yrs) and upper socio-economic status mothers. LSCS delivery was associated with significantly low levels of timely initiation.

Conclusion: There was a gap between knowledge of timely initiation and practice among mothers delivering in a medical college hospital that has been advocating baby friendly initiative for the last two decades

Nosocomial blood stream infections in ICU patients in tertiary care hospital
Aakanksha Arrawatia, Deasai SL, Kagal A

Introduction: Nosocomial blood stream infections are the most important cause of morbidity and mortality in ICU patients. So the present study was conducted with the aim to find out the rates and outcome, risk factors and the common pathogens causing BSIs along with their antibiotic profile.

Methods: A prospective study was done on the 100 patients admitted to the medical ICU of a tertiary care hospital in two months. With the ethical committee approval blood samples (10ml) were collected in the conventional and the Bactec blood culture bottle from those patients who showed the signs and symptoms of septicemia after 48 hrs of admission. Then bottles were incubated aerobically and sub cultured on Blood, chocolate and Maconkey agar. Identification of pathogen was done using standard methods and antibiotic susceptibility was determined by modified Kirby Bauer method using discs according to CLSI guidelines. The data obtained was statistically analyzed by chi square test and P≤0.05 was considered as significant.

Results: BSI Incidence was 6% in MICU. Among these 6 cases, 3 (50%) had primary BSI and 3 (50%) had secondary BSI. In secondary BSI cases, 2(75%) were secondary to mechanical ventilation and 1(25%) was secondary to catheter induced UTI . Risk factors like presence of central IV catheters, prolonged hospital stay (>10 days), diabetes indwelling urinary catheter were found to be significant. Out of 6 pathogens that were isolated 3 were multi drug resistant Gram positive organisms sensitive to only vancomycin while other 3 gram negative isolates were sensitive to only imepenem. Mortality rate in the present study was 50%.

Conclusion: In the present study because of multidrug resistant pathogens, nosocomial BSI were difficult to treat and were associated with high mortality. Hence achievable preventive measures should be taken to reduce the economic burden on patient and hospital community as a whole.

Prevalence and risk factor analysis in asymptomatic ischemic heart disease patients
Ram Chandar R, Asmathulla S, Ragunathan R

Introduction: Ischemic heart disease prevalence and incidence continue to increase. It is the leading cause of death in economically developed countries and is rapidly assuming serious dimensions in developing countries. Silent myocardial infarction is more frequent in certain populations such as older adults with diabetes. Hence, identifying the preventable/modifiable causes of IHD risk factors which are major contributor to CVD events is high priority.

Methods: A proper informed consent was given to 100 patients presenting to SMVMCH hospital and questionnaire consisting of demographic information, personal history, past history, blood pressure and 3ml of blood is collected to measure blood glucose level and cholesterol level. Height is measured using a standard stadiometer, Weight is measured using a calibrated weighing machine with a beam balance, Waist circumference is measured at the midpoint between the lower border of the rib cage and iliac crest, using a standard inch tape, Hip circumference will be measured at the level of greater trochanter by using a standard inch tape, BMI and Waist Hip Ratio (WHR) was calculated with the above parameters.

Results: Asymptomatic IHD subjects had significantly increased age than non IHD subjects. Among the study subjects, 30% of people had increased BMI whereas, in asymptomatic IHD 70% of people had increased BMI. 80% of our study population were centrally obese

(as measured with WC) and among asymptomatic IHD subjects 75% were centrally obese. WHR was found to be higher in 98% of overall population and almost all asymptomatic IHD subjects were obese (based on WHR).

Conclusion: Prevalence of IHD in asymptomatic patients is 13% in Puducherry hospital visiting population of SMVMCH. 'Central obesity' as measure by WC and WHR was found as the standard risk factor among them.

A study on awareness, attitude and factors influencing compliance among women taking oral contraceptive pills in an urban area in south Karnataka

Shradha Gupta, Prasanna Mithra P

Introduction: Oral Contraceptive Pills (OCPs) are the most commonly used spacing methods of contraception among women, including India. Compliance to OCPs plays important role in the effectiveness of contraception; which is affected by several factors. The knowledge about these factors is limited; hence the current study was done to study the factors influencing OCP compliance.

Methods: A Cross Sectional Study on 215 married women (less than 45 years of age) attending the Obstetric & Gynaecological Outpatient Clinic in the selected hospitals, was undertaken in the city of Mangalore in South Karnataka. Face to face interview was done using a pre-tested proforma on the subjects selected by purposive sampling. The subjects were labelled "Compliant" when they did not miss the doses in each cycle. The collected data was analysed using SPSS (Statistical Package for the Social Sciences) version 11.5. Chi-Square test was the statistical test used for analysis.

Results: Majority (86%) of the females taking OCPs belonged to the age group of 21-30 years, 56.3% of them were Housewives. The duration of OCP use increased with an increase in age of the subjects (p<0.05). The motivational level among the subjects was also high with respect to discussing about Family planning and OCPs with their husbands and with health care providers. Overall compliance rate was 63.6% which increased with age. However, ever-missing-a-dose was higher among those married for more than 2 years and those from nuclear families. Higher compliance was seen among subjects who were Professional workers, Christians and those from Upper Socio-economic status. Most women were unaware of mechanism of action of OCPs. Many subjects had higher chances of missing the pill due to the fear of side effects.

Conclusion: The overall compliance to OCPs was high. There were several factors affecting the compliance for example lack of knowledge related to action, side effects and seeking health care services.

A study correlating results and attendance of under-graduates in medical education

Surabhee Devendra Gour, Sandeep Shrivastava

Introduction: Absenteeism among medical students has received little attention in the literature. The purpose of this study is to assess the correlation between regularity of medical students in attending didactic lectures and their performance in professional examinations. Whether the students' regular participation in the process of medical education has any assurance towards their predictable outcomes is a thought to ponder upon. Recommendations based on the findings will also be suggested.

Methods: A retrospective observational study comprising of a sample size of 259 students of Prof III- Part 1 & 2 studying in Jawaharlal Nehru Medical College, Wardha. Students who were detained were excluded from the study. The information regarding the attendance was taken from autonomous attendance cell and that regarding the exam results was taken from autonomous examination cell of JNMC. The attendance is taken on optical sheet so as to minimize bias. Every candidate's attendance was classified according to the following groups: 75%-85%, 85%-95% and >95%. Similarly marks were classified as follows <50%, 50%-60%, 60%-70%, 70%-75% and >75%. Statistical analysis was performed and the correlation was found using Pearson's coefficient.

Results: In 75-85% attendance group, 4 students secured less than 50% marks, 29 scored 50-60% marks, 36 scored 60-70%, 2 scored 70-75% and none above 75% marks. In the attendance group of 85-90%, none got less than 50%, 27 scored 50-60%, 110 scored 60-70%, 18 scored 70-75% and 2 scored more than 75%. In the attendance group of greater than 95%, none scored less than 50%, 1 student scored 50-60%, 19 secured 60-70%, 10 scored 70-75% and 1 student scored more than 75% marks. Using Pearson's Coefficient, value of "r= 0.507".

Conclusion: The correlation was found to be highly significant. Exam results improve with increasing attendance. Under achievers or students with poor attendance must be identified early and encouraged to improve their performance.

Knowledge, attitude and practice regarding breast cancer and its screening methods among the nursing staff working in a tertiary care hospital

Niveatha S, Stalin P

Introduction: Role of health personnel in educating the people regarding screening tests of breast cancer is very important to detect cancer at an early stage to prevent the morbidity and mortality. This study was conducted to assess the knowledge, attitude and practices (KAP) regarding the breast cancer and its screening methods among staff nurses working in a tertiary care hospital in South India.

Methods: 198 staff nurses were interviewed using a pretested structured questionnaire which consists of domains regarding KAP regarding the breast cancer (epidemiology, diagnosis and treatment) and its screening tests (Breast Self Examination (BSE) Clinical Breast Examination (CBE) & Mammography).

Results: Most of staff nurses were younger (21 - 25 years; 80%), females (97%), graduates (80.7%) and had less than five years of working experience (86.7%). Family history (40.9%), inadequate breast feeding (29.8%) and life style factors (24.7%) were important risk factors of breast cancer as per participants. 36.9% mentioned biopsy as a diagnostic test. 73.2% mentioned BSE as a screening test but only 24.2% knew about the age to start BSE. 67.5% were practicing BSE but only 5.5% were practicing it regularly. Only 11.6% mentioned CBE as a screening test and 10.8% had undergone CBE only once. 18.7% mentioned mammography as a screening test.

Conclusion: Overall, the knowledge regarding breast cancer was moderate. The knowledge and practice of staff nurses regarding screening tests was low. Staff nurses should undergo continuing medical education to revise and update their knowledge; in turn they can educate the community.

Role of microRNA 191 in the disease progression of

chronic myeloid leukaemia
Konduri Anusha

Introduction: Micro-RNAs (miRNAs) are small, single-stranded RNAs of 21-25 nucleotides, endogenous non-coding RNAs that post transcriptionally regulate gene expression through partial base-pairing with the 3'-untranslated region of target mRNAs, resulting in mRNA destabilization and translational inhibition. (1-2) These molecules regulate many biological processes, such as cell differentiation, proliferation, apoptosis, and have been implicated in cancers and leukemias. Aberrant miRNA expression has recently been described for a variety of solid and haematological malignancies. In this study we will see the expression of miRNA 191 in CML patients.

Methods: A cohort of 20 CML patients (17 chronic phase, 1 accelerated phase, 2 blast crisis) and 10 healthy controls was analysed. MiRNA isolated from whole blood using microRNA isolation kit was used to perform reverse-transcription and Real Time-qPCR. MicroR-RNU6 served as the control gene. The expression level of the above genes was calculated based on the $\Delta\Delta Ct$ method.

Results: 25% of patients (100% of AP and BC) show a >5 fold increase in the miRNA 191 expression (P =0.031). 75% of patients with minimal haematological response show a significantly (>5 fold) higher expression as compared to 11% of those with major response (P=0.036). No correlation was found between miRNA 191 expression and age, sex and, Total Leucocyte Count (TLC).

Conclusion: Results reported a higher expression of microRNA 191 in CML patients as the disease progresses from chronic phase to blast crisis and with loss of haematological response to treatment. This could be used as a diagnostic and prognostic marker. Although the associations appeared to be statistically significant, further studies should be carried out with a symmetrical sample size in all phases. These initial findings should be independently verified in large sample population.

Nutritional status of children with cerebral palsy
Sarang Digambar Waghmare, Manas Kumar Behera

Introduction: Cerebral palsy is a common chronic neurological disorder in children. They are more vulnerable to malnutrition not because of their physical handicap but for other multiple factor like familial neglect, economical stress and psychosocial stigma. To study the nutritional status Wt for Ht indices of children with Cerebral palsy and Compare with latest WHO norms. To Co-relate it with socio-economic status.

Methods: A cross sectional observational study was conducted in SKN Medical College and General Hospital during April-June 2012. Cerebral palsy children up to 05 yrs were studied. Weight, height and length were measured by electronic weighing scale, stadiometer, infantometer and by means of flexible tap respectively.

Results: Total 50 children with Cerebral palsy aged 5 month to 5 years were studied. Mean age 3 years, male: female 31:19. Spastic CP 45 (90%) and 2 each (8%) hypotonic, Dyskinetic and 1(2%) of mixed variety. In the spastic CP Quadriplegia 23(46%), Diplegia 13 (26%), Paraplegia 6 (12%) and hemiplegia and monoplegia each were 4(14%). Majority of parent (86.66%) are of low socioeconomic status. In this study 36(72%) were malnourished of which SAM -23 (63.88%) and MAM -13 (36.11%). Stunting was observed in 30(60%) of cases. SAM is mostly associated with spastic variety of CP. 60 % of Children had clinical evidence of vitamin deficiency. Malnutrition was more

in lower socio-economic status.

Conclusion: Malnutrition was detected in 72percent of cerebral palsy children and more in lower socioeconomic status. Parents of CP children should be more concern with the nutritional status of their children and supplement adequate nutrition to prevent the morbidity and mortality.

A crosssectional study on EEG in diagnosing seizures in thechildren of age group 1 month to 12 years
Rowhit Yanamadala, B Elizabeth

Introduction: To study the sensitivity of EEG in diagnosing seizures in children. Compared to other latest techniques. To classify seizures. Research question: EEG is the best for easy and fast diagnosis of seizures

Methods: STUDY DESIGN: Crosssectional study .STUDY POPULATION: Patients admitted in the department of pediatrics with the complaint of seizures in government general hospital Guntur during the study period. We randomly recruit patients who are attending the pediatrics department with a case of seizures by using a detailed pre tested Performa. INCLUSION CRITERA: All types of seizures which include head trauma, infections of central nervous system and ICSOL as per CT brain. EXCLUSION CRITERIA: seizures due to electrolyte imbalance. Children above twelve years.

Results: TYPE OF SEIZURE: The majority of the cases are generalised seizures type which accounted for 57.5%. Among the generalised seizures the various types are generalised tonic clonic seizures—35% ,tonic seizures—7.5% ,clonic seizures—2.5% ,myoclonic seizures—2.5% ,atonic seizures—5% ,absence seizures—5% . The second majority of cases are seen in partial seizures which is about 15%.simple partial seizures 2.5%,complex partial seizures 10%,partial seizures with secondary generalization 2.5%.Febrile seizures accounted for 7.5%.Status epilepticus is seen in 10% of the patients.Unclassified seizures are also seen in 10% of the patients.SEX OF THE PATIENTS: The majority of the patients are female patients they accounted for 62.5% whereas the male patients are only 32.5%. AGE OF THE PATIENTS: The patients were divided into three classes based on their age(0-4,4-8,8-12). The majority of the patients were seen in the age group of 0-4 and 4-8 in equal number .The age group between 4-8 showed less number of patients. This age group is predominantly dominated by female patients.EEG FINDINGS: Generally 87% of the eeg reports were abnormal and 13% of the eeg reports were normal although the patients were diagnosed to have seizures by physical examination. The abnormal EEG findings found are Periodic lateralized epileptiform discharges, Bilateral independent periodic lateralized epileptiform discharges,biparietal epileptiform occipital paroxysms,hypsarrythmia,benign childhood epilepsy with centrotemporal spikes{bects},2-3 spikes per second{seen in absence seizures},generalized sharp wave discharges{seen in generalized tonic clonic seizures},high amplitude slow wave discharges{seen in status epilepticus,bitemporo parietal discharges {seen in atonic seizures}.

Conclusion: Clinical history and EEG are the main diagnostic weapons for seizures. The sensitivity of eeg for the diagnosis of suspected epilepsy in children is 70-90% . EEG findings are rapid in diagnosing and reliable in long term monitoring of seizures as compared to other techniques.

Awareness & practice of national guidelines on infant and young child feeding among working women in

Delhi
Prateek Suresh Harne, Prerna Batra

Introduction: It is estimated that 1 out of every 3 malnourished children lives in India and malnutrition is the leading cause of childhood mortality.Optimal infant and young child feeding practices determine the health and survival of infants and young children.Government of India has given the National Guidelines for Infant and Young Child Feeding (NGIYCF), but optimal IYCF practices are not reflected in the results of national surveys. With urbanization and increased literacy rates among females, female employment is increasing.Working women find it even more difficult to practice these guidelines.They need more support from government authorities and their families.Thus, present study was planned to assess the level of awareness and practices opted by the working women and the factors influencing implementation of these guidelines.Aims and Objectives: To assess the awareness and practice being followed by working women in Delhi and the factors responsible for sub-optimal feeding practices.

Methods: The study was carried out in the Department of Pediatrics, UCMS & GTB Hospital, New Delhi and nearby private hospitals after obtaining clearance from the IEC. The mothers were enrolled after taking a written informed consent. 200 mothers were interviewed by the investigator on the basis of a semi structured questionnaire. The questionnaire had demographic details of the respondent, including educational, employment and economical status, questions on the awareness about the national IYCF guidelines, the practice they followed and role of counselling.

Results: There existed a gap between awareness and practice of initiation of breastfeeding (62% vs 54%), optimal duration of exclusive breastfeeding (67% vs 38%), initiation of complimentary feeding (68% vs 39%) and optimal duration of breastfeeding along with complimentary feeding (72% vs 60%). Of the factors taken into account, some showed statistical significance through calculation of P value differently for awareness and practice.

Conclusion: Despite better awareness in certain aspects, optimal infant and young child feeding practices are lacking in working women.

Use of urine dipstick test to detect renal impairment in patients with malaria coming to Vydehi Institute of Medical Sciences and Research Centre
Aishwarya S, Somasekar DS

Introduction: Malaria is a major public health problem in tropical developing countries like India. An upsurge in incidence of acute renal failure in malaria (2-39%) in India has led to increase in morbidity and mortality. Plasmodium falciparum and Plasmodium vivax malaria associated with acute renal failure is a life threatening condition, but early diagnosis and intervention with appropriate anti-malarial and frequent dialysis therapy is associated with improved survival and recovery of renal function. Therefore, this study was conducted for early diagnosis of renal impairment using urine dipstick test to detect hematuria in all patients diagnosed with malaria.

Methods: Consecutive smear positive cases of P. falciparum or P.vivax malaria coming to Vydehi Hospital in June, July 2012 were recruited. On admission, urine was collected and analysed within 30 minutes to detect microscopic hematuria by dipstick test.

Results: Out of 31 patients with established malaria, 19 had P. falciparum, 3(16%) of whom had haematuria. 11 patients had P.vivax infection, 1(9%) of whom had haematuria. The sensitivity and specificity of haematuria (≥25 red blood cell count/µL of urine) to detect renal impairment was found to be 75% and 96.3%, respectively. The sensitivity and specificity of proteinuria (urinary protein ≥300 mg/L) to detect renal impairment was found to be 75% and 81.5%, respectively. Significantly higher values of haematuria and proteinuria were observed in patients with renal impairment than those without renal impairment ($P < 0.001$). There was a positive correlation of haematuria with plasma urea ($r = 0.378$, $P < 0.001$) and creatinine ($r = 0.365$, $P < 0.01$).

Conclusion: The presence of microscopic haematuria has proved to be a good parameter for the early detection of renal impairment in patients with malaria. The urine strip method is a simple, rapid and cost-effective method convenient for use in rural and remote areas.

Can counselling effect the initiation of breast feeding in the first one hour?
Amrita Talwar, Neha Gami

Introduction: WHO recommends initiation of breast feeding within 1 hour of vaginal delivery and 4 hours after caesarian section. With all the evidence of benefits of early initiation of breast feeding present, on a practical level, only about 1 to 23% women are actually following it. In India there are many barriers to initiation of breast feeding within one hour of birth, lack of knowledge, experience and support from hospital staff and family, to name a few. This study was done with the aim of evaluating whether verbal counseling of pregnant women during the antenatal period can improve the incidence of early initiation of breast feeding and to educate women regarding the benefits of early and exclusive breast feeding.

Methods: This is a prospective, questionnaire based study, conducted on a population of 100 pregnant females, admitted at term in a tertiary care hospital of Delhi. The study population was selected after applying inclusion and exclusion criterias. The pregnant women were asked to fill up an informed consent form. Those consenting were randomly divided in the following groups of 50 each: Group A: Females admitted at term, prior induction or in first stage of labor were verbally counseled to initiate early breast feeding. Group B: No intervention done. After the delivery the participants were asked to fill up a questionnaire. The results were obtained using relevant statistical methods. Confidentiality has been maintained.

Results: 58% (29) in group A and 32% (16) women in group B breastfed within one hour of birth. Chi square test shows significant relationship between antenatal counseling and early initiation of breastfeeding.

Conclusion: This study shows that simple measures like verbal counseling can improve the early initiation of breast feeding. However, there is still a need to overcome other barriers to early breastfeeding.

A comparative study of MRI and clinical findings in diagnosis of internal derangement's of knee joint
Syed Safiuddin Ghazi Ali, Prakash A Sasnur

Introduction: Internal derangements of knee joint have become a common presentation in the orthopedic department. These

derangements can be diagnosed by clinical examination, MRI scan and diagnostic arthroscopy. This study compares the MRI findings with clinical examination findings in terms of accuracy, sensitivity, specificity, positive and negative predictive values (PPV & NPV), for diagnosis of knee lesions keeping arthroscopy as a gold standard for comparison

Methods: This study retrospectively reviewed 33 patients who have undergone Clinical evaluation, MRI scan and arthroscopy. All patients were examined and operated under the care of a senior orthopedic surgeon of our hospital, and a single radiologist report was considered for MRI. The History, chief complaints, physical findings, clinical examination findings, MRI results and arthroscopy results, all were documented into a proforma sheet for each of these 33 cases. These results were then subjected to statistical tests for true positives, true negatives, false positives and false negatives, keeping arthroscopic findings as gold standards for comparison

Results: MRI is the most appropriate tool in diagnosis of knee injuries. The accuracy of MRI for ACL tear is found to be 90.90%, PCL 90.91%, MM 90.91% and LM 100% while accuracy of clinical diagnosis for ACL tear is found to be 75.75%, PCL 87.88%, MM 72.73% and LM 78.79%. For ACL tear, MRI gives a sensitivity of 96.15%, specificity of 71.43%, PPV of 92.59%, NPV of 83.33% while Clinical examination gives sensitivity of 95.83%, specificity of 66.67%, PPV of 76.67%, NPV of 33.33%. As for MM lesions, MRI gives a sensitivity of 88.88%,specificity of 91.66%, PPV of 80.00%, NPV of 95.65% while Clinical examination gives a sensitivity of 77.77%, specificity of 70.83%, PPV of 50.00%, NPV of 89.47%

Conclusion: MRI is highly accurate in diagnosis of Cruciate ligament tears and Meniscal lesions. Even though in the most experienced hands, clinical examination remains less reliable for diagnosis of these lesions. Though repeated and systematically done clinical examination may also give better results, but MRI proves to be a valuable tool in diagnosis of knee joint pathology with an excellent accuracy and reliability. Hence It can be concluded that an MRI scan should be suggested for the diagnosis of knee lesions, as a normal scan can rule out any pathology in the knee

Asymptomatic bacteriuria in post-renal transplant recipients

F Anto Nazarene, R Deepa

Introduction: Persistent asymptomatic bacteriuria in renal transplant recipients has been proved to have a grave impact on allograft function and patient survival.The objectives are to determine the prevalence of asymptomatic bacteriuria(ABU), etiological agents and susceptibility pattern of bacterial isolates.

Methods: Adult male & Female patients who have undergone renal transplantation from living related donor & deceased donor in past 2 years without clinical symptoms are included. The patient is instructed to collect a clean Catch midstream urine sample which was transported immediately to laboratory for culture.The organisms are identified by gram stain, motility & biochemical reactions.Antibiotic susceptibility testing is performed according to CLSI guidelines.

Results: Among 50 cases included in the study,21 (42%) had ABU.ABU was detected in 18/41(43.9%) of living related donor renal recipients and 3/9(33.3%) of deceased donor renal recipients[P=0.095].8/18(44.4%) , 7/17(41.2%), 3/10 (30%) and 3/5(60%) of patients who presented at 0-6 mths,7-12 mths,13 -18 mths and 19-24mths respectively had ABU. ABU was detected

in 14/39(35.8%) of males and 7/11(63.6 %) of females. [P=0.1] . Gram negative bacilli were isolated in 19 (90.5%) and gram positive cocci in 2 (9.5%) of cases.None of isolates of E.coli,K.oxytoca,P. vulgaris,and 20% of K.pneumoniae were susceptible to TMP-SMX. 10 of 18(55.5%)of Enterobacteriaceae isolates were ESBL producers. Isolates of Pseudomonas aeruginosa, Staphylococcus epidermidis and Enterococcus faecalis are obtained.Among ten patients who came for follow up, 6(60%) showed repeated isolation of the same growth.

Conclusion: Prevalence of asymptomatic bacteriuria in renal transplant recipients was 42%.The commonest pathogens E.coli and K.pneumoniae were resistant to commonly used prophylactic agent TMP-SMX.ESBL production was detected in 55.5% of Enterobacteriaceae isolates.Follow up of few cases revealed resolution of bacteriuria in 40% of cases without treatment. Therefore close follow up of cases is necessary to decide on treatment.

Epidemiological profile of tuberculosis

Abhilasha S, Huliraj, Pushpa Krishna

Introduction: Tuberculosis is an infectious bacterial disease caused by Mycobacterium Tuberculosis, which is transmitted via droplets of people having active respiratory disease.India has the highest TB burden in the world, accounting for one fifth of the global incidence.There is a need for research on TB for better measures. The objective of the study was to find incidence of TB with respect to Pulmonary and Extra pulmonary TB,sex,age and discontinuation of TB treatment.

Methods: It is a 'cross-sectional study' done on 171 confirmed TB Patients.Information about the clinical profile and investigation of patients diagnosed for TB during the year 2010 which are maintained at Medical Record Department of a hospital were used for analysis with ethical clearance.Incidence of disease is considered in terms of sputum culture with or without smear positivity and X- ray findings. The incidence of Pulmonary and Extra Pulmonary TB based on gender, age, retroviral positivity and discontinuation of TB treatment were determined and expressed in various statistical ways.

Results: Among 171 TB patients 165 (96%) were PTB and 6 (4%) were EPTB. 51 patients were sputum positive (43-Male and 8-Female). The rest of them (120) were diagnosed by X-ray findings. 26% were in 31-40yrs age group. 44 retroviral positive cases with TB and 9 (5.2%) cases of discontinuation of TB treatment were found.

Conclusion: Results of study indicate that the incidence of TB is equal throughout the world. The Highest incidence seen in 31-40 years of age gives rise to concerns about economic burden to a family as well as to the society. Higher incidence of TB in HIV group signifies the importance of special care and cautions towards them. There is a need for increased awareness of TB, improved accessibility of health-care services and further research on TB to provide inputs for TB Control Strategy.

Assessment of tobacco consumption patterns in an urban slum in Numbai, India and screening for oral cancers

Anurati Mehta, Shweta Partiosh Kukrety

Introduction: Oral cancer is amongst the commonest form of cancer and cancer-related deaths in India due to popularity of avoidable

risk factors such as tobacco and alcohol use. Despite the presence of cheap and easy visual screening methods, these cancers are often detected at a late stage. Early detection would not only improve the cure rate, but it would also lower the cost and morbidity associated with treatment.

Methods: Methodology - This study was a community – based, cross - sectional study, conducted over a period of eight weeks. 106 participants were chosen from an urban slum in an eastern suburb of Mumbai, India. The study used systematic random sampling to select the houses of the study participants. The data was analysed using SPSS software. Inclusion criteria: Age 12 years or above, and, Individuals who gave their informed consent for participating in the study. Exclusion criteria: Known cases of oral cancer, and, Those unwilling to give informed consent. Materials - Case Study Form and Household Case Study Form, Tobacco and Alcohol Consumption Questionnaire, Proforma for Examination of the Oral Cavity, Informed Consent Form, Materials used to conduct the examination.

Results: 26 (55.4%) of the 47 male participants and 38 (64.4%) of the 59 female participants consume tobacco. 89% of the participants consume tobacco on a daily basis. No participant aged 12-19 years admitted to consuming any form of tobacco. The types of tobacco consumed were follows: Mishri - 73.4%, Pan - 50.0% , Tobacco & Areca Nut with Slaked Lime - 43.8%, Chewing tobacco - 18.8%, Gudhka - 12.5%. Leukoplakia, Erythroplakia, Oral Submucosal Fibrosis, staining of teeth and poor oral hygiene were significantly higher in tobacco users are compared to non – users.

Conclusion: Contrary to popular belief more women consumed tobacco compared to men, and this was of the smokeless form. Most tobacco users have significantly more oral lesions. If action is taken early it would make a huge impact on society. Hence there is urgent need for awareness and de - addiction programs in the community, with emphasis on smokeless tobacco and a greater focus on women than before.

Hypertension in school children: prevalence and risk factors

Shweta Paritosh Kukrety, Padmavathi Dyavarishetty, Anurati Mehta

Introduction: Childhood hypertension is an established predictor of adult hypertension and organ damage, an underestimated problem in developing countries. The aim of this study was to assess the prevalence of hypertension among apparently healthy school children in Mumbai, India and correlate high blood pressures with sex, BMI, food habits, physical activity and family history of hypertension

Methods: A total of 104 students (59 boys and 45 girls) between the ages of 12 to 15 years from a municipal school in Mumbai were examined. The children were interviewed using a standardised, structured questionnaire. Information on age, sex, family history of hypertension, dietary habits and physical activity was collected. Height and weight was recorded along with blood pressure measurements using a digital automatic blood pressure monitor. BMI was calculated and cut off values proposed by Centre for Disease Control and Prevention (CDC) were used for defining the weight class. The children with systolic or diastolic blood pressure or both, equal to or more than the 95th percentile were considered to be hypertensive.

Results: The overall prevalence of hypertension in children was 4.8%. There was no significant difference in the blood pressure of the two sexes. Of the 104 students, 44 (42.3%) were underweight, 6 (5.8%) were overweight and 1(0.96%) obese. Prevalence of hypertension in children with high BMI (overweight and obese) and family history of hypertension was 57% and 13.7% respectively, as compared to other children in whom the prevalence was only 1.03% and 1.9% respectively.

Conclusion: We found that the prevalence of hypertension in apparently healthy school children was 4.8%. Significant risk factors were high BMI (overweight and obese) and a family history of hypertension. The results suggest the need for greater public awareness, screening of school children and lifestyle education programmes for all children and especially for those with family history of hypertension.

Ischemia modified albumin in critically-ill patients with sepsis

Prashanth Ashok Kumar

Introduction: Procalcitonin (PCT) is currently being widely used for diagnosis of the onset of sepsis in critically ill patients. However, this test does not provide any clues about concurrent existence of ischemia and oxidative stress at the molecular level in this clinical setting. Ischemia modified albumin (IMA) is an emerging parameter which could serve as a marker for the onset of sepsis induced oxidative stress before it culminates in multi-organ dysfunction.

Methods: The study was conducted on 38 patients admitted into the ICU. The control group had 25 apparently healthy subjects. Serum PCT was assayed by an electrochemiluminescence method and the cut off for sepsis was taken as > 0.5ng/mL. Serum IMA, expressed as absorbance units, was assayed by a spectro-photometric method based upon the principle that IMA has a decreased capacity to bind cobalt. Receiver Operator Characteristic Curve (ROC) was constructed to determine the sensitivity and specificity of IMA to detect the pathological condition.

Results: Patients with sepsis had significantly higher IMA levels (1.087 ± 0.786) as compared with those without sepsis (0.085 ± 0.234) with a p value < 0.01.The ROC plot showed a sensitivity of 100% and a specificity of 86.2%. The area under the curve of the ROC plot was 0.917 which gave a p value <0.0001.

Conclusion: This study has clearly shown that IMA could be used to detect and quantify oxidative stress in critically ill patients with sepsis. The higher levels of IMA serve to highlight the occurrence of ischemic damage which could be a prelude to poorer prognosis. It could help to identify patients in need of medical interventions to combat ischemia. Since albumin plays an important role in transport of bio-molecules such as free fatty acids, as well as drugs such as salicylates, alterations in its configuration could have an impact upon treatment outcomes.

Epidemiological study to determine the prevalence and determinants of hypokinetic disorders among information technology professionals

Syed Salman Hamid Hashmi, Pravin Pissudde

Introduction: The prefix hypo means lack of and kinetic refers to movement and the term hypo kinetic disorders include disorders whose potential cause is inactivity like obesity,back problems,osteoporosis.The worse struck by this problem are the information technology professionals work for long hours on the

computer.In the following study the prevalence of these disorders was determined and also evaluates its possible causes.

Methods: The study was undertaken during march to april 2012 at information technology companies located at HI TECH city Hyderabad Andhra Pradesh.A total of 370 subjects were selected.All those in the age group of 25-50yrs and are working in the IT Industry for four years or greater.A informed consent was taken and a pre-designed and pre-tested questionnaire interview method was used. The questionnaire had two sections,section A consists of items on demographic ,anthropometric data of respondents while section B consists of items used to elicit data on determinants of hypokinetic disorder.A detailed history of hypokinetic disorders was taken. Out of 400 questionnaire distributed a total of 370 were completed and returned.The data collected was entered and analyzed using epi_info 6.04d.

Results: The findings from the study revealed high prevalence of hypokinetic disorders.These disorders were highly associated with inactivity,lack of ergonomics and unhealthy diet.The study also revealed that there was no sex difference in prevalence of the disorders.The finding also showed age difference in prevalence of the disorders.

Conclusion: Regular physical exercise and healthy diet have shown to have positive relation with health.Ergonomics and regular breaks during work decrease the risk of work related musculo-skeletal disorders.

Prospective study of selective serotonin re-uptake inhibitors (SSRIs) induced sexual dysfunction.

Lakhani Dhairya Ajaykumar, Raina Garg

Introduction: Treatment-emergent sexual dysfunction is a frequent adverse effect occurring with medication use and is a major influence for premature discontinuation of antidepressant treatment, which leads to treatment failure and costly disease management outcomes. Sexual dysfunctions, including loss of desire, erectile dysfunction, delayed ejaculation, and anorgasmia, are widely accepted as frequent side effects of treatment with selective serotonin reuptake inhibitors (SSRI) antidepressants. High community prevalence rates of inhibited orgasm (4%-10%), erectile dysfunction (4%-10%), inhibited female arousal disorders (11%-48%), and premature ejaculation (35%) have been reported, as has an association between sexual dysfunctions and depression. The current study assesses sexual dysfunction in men and women with major depressive disorders who were on SSRIs for more than one month duration.

Methods: Ninety six subjects (50 women, 46 men) with DSM-IV-TR diagnosis of major depressive disorder on medication with SSRIs for minimum one month were assessed for sexual dysfunction on the Arizona Sexual Experience Scale.

Results: As measured by scores on the Arizona Sexual Experience Scale; 80% of the study population had sexual dysfunction; overall sexual dysfunction was significantly more in men compared from women. In men, ease of orgasm and orgasm satisfaction was significantly less than women and there was a trend toward worsening sex drive than women.

Conclusion: Sexual dysfunction is a common adverse effect of antidepressant treatment. Physicians should monitor their patients for antidepressant-induced sexual adverse effects, as these may affect compliance with therapy and ultimate treatment success.

Screening at admission for carrier prevalence of multidrug resistant organisms: a hospital based observational study

Vandana S, Deepa S

Introduction: Bacterial antimicrobial(AMR) drug resistance is a worldwide problem depleting new antimicrobials in the pharmaceutical pipeline. Resistance increases mortality, morbidity and costs in hospital settings. Screening for multidrug-resistant(MDR) organisms is needed to deal with this major clinical problem. A screen-isolate-strategy is very effective for the control of M Hence the study was taken up to know the carriage prevalence of MDR-bacteria in the community.

Methods: The study was carried out in the Department of Microbiology, MMC&RI, Mysore from 01/05/2012 to 31/06/2012. 100 patients from surgery wards without any past history of hospital admissions and immunocompromised status were screened within 48 hrs of admission. Nasal swabs from anterior nares and stool samples were collected and cultured. The isolates were identified by microscopy and standard biochemical reactions. Antimicrobial susceptibility test was performed by Kirby-Bauer's disk diffusion technique to see for multidrug(MDR), extreme-drug(XDR) and pan-drug(PDR) resistance. Cefoxitine disk for methicillin resistance and erythromycin-clindamycin disks for inducible-resistance were used.

Results: In the nares, among 35 isolates of CoNS, 8(22.8%) were MDR and 2(5.7%) were X Among 33 isolates of Staphylococcus aureus, 5(15.15%) were MDR and 3 (9%) were X Of the 20 MRSA isolates obtained, 4(20%) were MDR and 2(10%) were XDR, 14(70%) isolates were community-acquired MRSA. Inducible resistance was seen among 19(27.9%) gram-positive bacteria. Of the 134 faecal GNBs isolated, 72(53.7%) isolates were multi-drug resistant. 38(28.3%) were MDR, 32(23.8%) were XDR and 2(1.4%) were PDR. 33(24.6%) were ESBL-producers and 30(22.3%) were MBL-producers. Of the 24 isolates of Enterococci, 10(41.6%) were vancomycin-resistant. 13(54.1%) were multi-drug resistant. 10(41.6%) were MDR and 2(8.3%) were XDR and 1(4.1%) was PDR.

Conclusion: Hence systematic and judicious actions to curb the threat of AMR is necessary. Information to the doctors regarding drug susceptibility through routine screening of the patients before admission would aid in effective empirical therapy and prevent cross transmission in hospitals.

Role of consanguineous marriage in causing congenital deafness

K Sanjana Reddy, Raghunath Shanbag

Introduction: Consanguineous marriages are a deeply rooted social trend that is culturally and socially accepted in several parts of India. It's prevalence particularly in rural areas is attributed to the lack of awareness of its detrimental effects in the offspring.The closer the biological relationship,greater is the possibility of expression of autosomal recessive genes and other congenital disorders.Thus,our study aims to explore the role consanguineous marriages in causing congenital deafness and to rule out the presence of some other risk factors in causation of deafness.

Methods: A cross sectional study was carried out at P.V.Datti Rotary school for the Deaf catering to the population of Hubli.Study participants are parents of all the students enrolled into classes I-VII.The information was collected by interviewing parents on a pre tested questionaire.The data was entered on a microsoft excel

sheet and appropriate statistical tests were employed for analysis.

Results: It was found that 26 children out of 46 were born out of consanguineous marriage.Further results will be presented at the time of conference.

Conclusion: The findings demonstrate the high prevalence of deafness among children born to consanguineous couples.There arises a need to implement planning at a national level to spread awareness about the consequences of consanguineous marriage. Extensive screening must be done in all neonates for early detection and intervention.

Awareness about medical ethics among undergraduate students
Pareesa Rabbani, Ayesha Ahmad

Background: Medical ethics is a system of moral principles that applies values and judgments to the practice of medicine and defines the correct code of conduct for members of the medical profession. It tells us how to act rightly, fairly and honestly in different situations faced by the medical professional during their interaction with patients, communities and colleagues. The first guideline in the history of medicine was introduced by Hippocrates, a Greek physician and is famous as Hippocratic Oath. It began as the simple phrase, 'do no harm'. The study of medical ethics is mandatory for every health practitioner because there is hardly an area in medicine that doesn't have an ethical aspect. Though these codes of conduct have been formulated in detail by National and State Medical Councils and World Medical Association but still there is lack of awareness among medical practitioners. Some doctors equate ethics with religious beliefs. We as doctors should provide the best care to our patients in the most ethical manner. This would help us take proper decisions and help establish an environment where every patient is treated as an individual with dignity and respect, irrespective of caste, creed or religion, and without getting harmed.

Methods: We designed the study with the following aims-to assess the awareness of medical ethics amongst undergraduate students of a medical college, to assess the receptivity of medical students to the study of ethics and to take inputs/suggestions from the medical students about changes in their curriculum and teaching learning activities for inculcating ethical values in future doctors and important stake holders. The study was a prospective, cross sectional, observational study conducted over a period of one month. The students were motivated to answer a series of questions on the subject of medical ethics dealing with the specific aims and objectives as defined by us earlier, by the medium of a confidential questionnaire based on likert scale.

Results: Most of the subjects did not have adequate exposure to medical ethics; the lack of training during Medical School was evident. Questions related to ethical issues were dealt with emotion rather than being based on knowledge.

Detection of antibiotic sensitivity in multi drug resistant microorganisms using red wine
R Vyshnavi, S Raveena, M Anitha

Background: Numerous studies have been documentedtowards health benefits of red wine consumption, including anti-oxidative, anti-carcinogenic, anti-inflammatory and anti-cardiovascular and antibacterial properties. Inhibitory effects against pathogens may be attributed to the catechin and resveratrol found in red wines.

Materials And Methods: Antibiotic susceptibility test of the selected strains were determined by the standard disk diffusion method. The wine extracts were tested using agar well diffusion method according to CLSI guidelines. Overnight bacterial cultures were inoculated to Petri dishes containing 15 mL of MHA. MIC concentration of 0.5 mg/ml of red wine was used for sensitivitytesting. 4 equidistant wells, 4 mm in diameter each, were punched into the inoculated medium with sterile glass Pasteur pipettes and were filled up with 10µl of wine andwere incubated at 37 °C and inhibition zones were measured after 24 h.

Result: The following zone of maximum diameter was obtained for the MIC dilution in these organisms: Staphylococcus aureus: 1500mg/ml-22mm,750mg/ml-18mm,375mg/ml-13mm.Klebsiellapneumoniae: 1500mg/ml-29mm,750mg/ml-20mm,375mg/ml-6mm.Escherichia coli: 1500mg/ml-27mm,750mg/ml-19mm,375mg/ml-13mm. Maximum zone of diameter was obtained at a concentration of 1500 mg/ml when compared to the other concentration shown against the control.

Conclusion: The high level concentration of (1500mg/ml) red wine shows bactericidal effect on the isolates like staphylococcus aureus, Klebsiella pneumonia and Escherichia coli. There was resistance observed in association with reduced concentration of alcohol.The components of red wine showed extensive sensitive zone for gram negative bacilli in comparison to gram positive organisms which was resistant. Thus red wine can be used in the treatmentof infections as proved by our study when the world is facing the crisis with LACK of sensitive drugs for the lethal MDR GNR!!!

Clinical profile of zinc phosphide poisoning in a tertiary care hospital – role of hepatotoxicity and impact of therapy
Swati Chhikara, Kushal Naha

Introduction: Zinc phosphide is a commercially available rodenticide. It is the second commonest cause of intentional and accidental poisoning according to a recent study conducted in Tamil Nadu. Despite the high mortality associated with zinc phosphide poisoning, there is limited data available on its systemic manifestations, as well as the efficacy of putative therapeutic agents. This study was designed to determine the role of hepatotoxicity as a predictor of mortality and the impact of various treatment modalities on patient outcomes.

Methods: A retrospective cohort study was conducted, involving patients presenting with zinc phosphide poisoning in the Department of Medicine, Kasturba Hospital, between January 2007 and December 2011. Patients with concomitant poisoning with other substances, and those below 18 years of age were excluded. Institutional ethical committee approval was obtained. Patients were followed up from admission till discharge. Clinical presentation, baseline and nadir liver function tests, time to deterioration and modalities of therapy were noted. Primary outcomes included survival, death and discharge against medical advice. Data analysis will be done using statistical software (SPSS, v.16).

Results: 55 patients were included, of whom 29 (52.7%) were female. Mean age was 27±11.53. Twenty-four (43.6%) patients survived, 21 (38.2%) succumbed and 10 (18.2%) were discharged against advice. Icterus and hepatic asterixis were associated with adverse outcome (death or discharge against medical advice). Elevated baseline serum aspartate aminotransferase and maximal serum alanine

aminotransferase were also significantly associated with adverse outcome. Gastric lavage was significantly associated with survival. High-dose therapy with N-Acetyl cysteine was beneficial, although delayed initiation did not provide benefit; however, this was not statistically significant.

Conclusion: SIcterus, hepatic asterixis and elevated liver enzymes were all predictive of adverse outcome. Gastric lavage was the only therapeutic modality associated with improved survival. Early initiation of high-dose therapy with N-Acetyl Cysteine was beneficial although this was not statistically significant.

Clinical profile of scrub typhus fever in adults- a tertiary care experience

Rajiv G, Adil AM, Senthilmanikandant J, Vignesh R, Vivian Kapil V, Kalyani M, Rajendran K

Introduction: Scrub typhus is an important cause of acute undifferentiated febrile illnesses in the Indian subcontinent. Delay in diagnosis and in the initiation of appropriate treatment can result in severe complications such as acute respiratory distress syndrome, multisystem organ failure culminating in death. Our aim is to study the clinical profile and complications in adults with scrub typhus.

Methods: In this study, we analyzed 27 scrub typhus patients records obtained using ICD 9 codes who were admitted in SMCH from January 2012 to December 2012.

Results: All 27 patients had fever (100%) mean duration of fever was 8.4 days of which 7 had fever with chills(38%), 7 had dyspnea(38%), 4 had hypotension(14%),1 had meningoencephalitis features. Eschar was present in majority of the patients (90%), mostly located in the thigh(50%).Weil felix test was positive in 25(92%). Laboratory analysis revealed thrombocytopenia in 15 patients (55%), Liver enzymes were elevated in nearly all cases (95%). The complications were as follows : 10 had AKI (37%)who recovered with conservative therapy , 3 developed ARDS (11%) of which 1 expired .Fever responded to Doxycline and it subsided within 24-48 hours.

Conclusion: Scrub typhus should be considered in the differential diagnosis of patients with acute febrile illnesses, especially those with thrombocytopenia, renal impairment, and LFT abnormalities. A thorough search for eschar, particularly in the hidden areas will be helpful in clinching the clinical diagnosis. Empirical therapy with Doxycycline may be life saving when clinical suspicion is high, even if Weil Felix test is negative and eschar is absent.

Utility of IHC detection of FLI-1 expression in Ewing's sarcoma/primitive neuroectodermal tumors using monoclonal FLI-1 antibody.

Bandul Hans

Background: Ewing's sarcoma/Primitive Neuroectodermal tumor(ES/PNET) are rare mesenchymal neoplasms characterized by chromosomal translocation t(11;22) (q24:q12) resulting in the production of the EWS/FLI-1 fusion gene. In routine clinical practice differentiating ES/PNET from other Small Round Blue Cell Tumors (SRBCT) like Rhabdomyosarcoma (RMS), Desmoplastic Small Round Cell Tumor (DSRCT), poorly differentiated synovial sarcoma, lymphomas and oat cell carcinomas is based on both histomorphology and immunohistochemistry. CD99 is a sensitive marker of ES/PNET, however, current literature suggests that its expression is not limited to ES/PNET alone and immunoreactivity has been observed in RMS,

Synovial sarcoma and Lymphoblastic lymphoma. Differentiating these entities is vital as chemotherapy for each is specific. FLI-1 has the potential to act as a valuable marker of ES/PNET, alongside CD99. Only few studies using FLI-1 antibody are reported so far. Thus, this study was undertaken to evaluate the value of the FLI-1 antibody expression in ES/PNET.

Methods: A total of 30 cases of SRBCTs are being evaluated, of which 15 are confirmed cases of ES/PNET of different sites and 15 other SRBCTs. All the cases have been retrieved from the archives of Malignant Disease Treatment Centre (MDTC, Command Hospital, Pune). H&E sections of all the cases are being evaluated by two expert pathologists. IHC will be performed on relevant blocks using mouse monoclonal FLI-1 antibody (clone: MRQ-1, from Cell Marque, USA) and results will be evaluated.

Results: Only nuclear staining was accepted as positive. FLI-1 expression was seen in 8 of 11 (72%) ES/PNET, 0 of 1 neuroblastoma, 0 of 1synovial sarcoma, 0 of 1 lymphoma, 0 of 1 RMS..

Conclusion: Immunohistochemical detection of FLI-1may be valuable in confirming the diagnosis of ES/PNET in cases in which molecular genetic evaluation is not feasible. It is a pilot study. A multicentric study with larger sample size, is further recommended for validating the result of present study.

A study of incidence and clinical profile of hyponatremia in hypertensive patients on thiazides

Syed Nazeer Mahmood, Meenakshi Bamalwa, Ram Bhat

Background: Thiazides have been established as the first line therapy for management of essential hypertension, However, the use of thiazide diuretics is often limited by concerns regarding metabolic derangements. Hyponatremia in 13.7% of the patients on thiazides has been reported in the primary care setup. Hyponatremia is known to be associated with several neurological complications and several other conditions leading to poorer prognosis in patients. This paper attempts to study the incidence of hyponatremia among patients on thiazides. We will also attempt to identify the clinical presentation of such patients while outlining certain demographic data that might predict the occurrence of hyponatremia in them.

Methods: This was a prospective study conducted in a Tertiary Care hospital in Karnataka. Sample consisted of 110 patients and a control group of 106 patients. All patients were assessed on the basis of a semi-structured questionnaire and their sodium values were checked. Patients with hepatic or renal dysfunction, Hypothyroidism, Addison's disease or any edematous or volume depleting states were excluded.

Results: In the total study sample of 216 patients, 128 (59.3%) were found to be hyponatremic. 83(75.4%) of patients on thiazides were found to be hyponatremic as opposed to 45(42.5%) patients in the control group. Occupation was significantly related to decreased sodium values, with patients working outdoors having lowest sodium values and the retired class having the highest values. Alcoholics, albeit hyponatremic, were found to have higher sodium values when compared to non-alcoholics.

Conclusion: 59.3% of hypertensive were found to be hyponatremic. This is expected in a tropical country, as patients tend to have greater salt losses. Patients on thiazides had hyponatremia, with increased frequency and severity, when compared to those not on thiazides. The place of Thiazides as First Line Drug Therapy is questionable in a country like ours, and should be prescribed with caution.

Expression pattern of MGMT and evaluation of its utility as a surrogate prognostic marker in primary astrocytic versus non-astrocytic CNS tumors: a Pilot Study

Prabal Deb, Mandavi Dwivedi, Vibha Dutta, Barun Chakraborty

Introduction: Primary malignant brain tumours are rare with high mortality rate. Management and prognostication of these tumours remains a challenge. Recent developments have unraveled a wide array of prognostic markers, of which epigenetic silencing of MGMT (O6-methylguanine– DNA methyltransferase) gene located on chromosome 10q26, is of considerable interest in terms of predictive and prognostic value. Cells with high MGMT levels display lower response to alkylating chemotherapy. Though methylation-specific polymerase chain reaction (MS-PCR) remains the gold standard for evaluating MGMT status, recent studies using immunohistochemistry (IHC) have showed good correlation. The aim of this study was to explore the expression pattern of MGMT in non-astrocytic neoplasms, and compare it with diffusely infiltrating gliomas.

Methods: Serial sections from 45 astrocytic and 30 primary non-astrocytic (20 meningiomas and 10 ependymomas) tumours of varying grades and types were stained by routine hematoxylin-esoin (H&E) for morphological evaluation. For MGMT expression and proliferation index, representative sections were immunohistochemically stained using mouse anti-human MGMT monoclonal antibodies.
Results: Non-astrocytic tumours displayed mild female predominance with age ranging between 9-70 years (mean 47.3 years) and proliferation index ≤5% (in 26 cases). MGMT-immunostaining of 2+/3+ was seen in 3/5 cases (60%) in < 20 years; 2/ 3 cases (66.67%) in 21-40 years; 6/14 cases (42.8%) 41-60 years; and 1/8 (12.5%) cases in 61-80 years age group amongst non-astrocytic tumours, while the corresponding figures for gliomas were 0%; 66.7%; 43.8%; 25%. In cases of meningiomas and ependymomas, 43.33% and 70% cases showed (2+/3+) MGMT staining, as against 88% in diffuse astrocytomas and 19% in glioblastomas.

Conclusions: MGMT shows good correlation with conventional histomorphologic and proliferation markers, and should constitute part of the optimal diagnostic workup of CNS tumours, with larger number of cases, and longer follow-up, especially in non-astrocytic tumours, for better comprehension of its significance.

Study of contaminated handwashing antiseptics in open containers by in-use test in a tertiary care hospital

Namratha S, Yogeesha Babu KV

Background: Contaminated hand washing solution in open containers (cHWAO) frequently act as source of multidrug and disinfectant resistant microorganisms in nosocomial infections through hands of Health care workers (HCW). Limited data available on this necessitated the present study. Determine rate of contaminated handwashing solutions in open containers (cHWAO) by In-use test. Isolation, identification, antibiotic susceptibility testing and antibiogram typing of bacterial isolates from different cHWAO and analysis of hand antisepsis practices using HWAO by questionnaire.

Methods: Cross sectional prospective observational study of one month was conducted. Forty six of 65 HWAO from wards, OPDs, Casualty and ICUs were sampled to determine rate of microbial contamination by In-use test, followed by questionnaire. Isolation, identification, antimicrobial susceptibility testing and antibiogram

typing was done as per standard laboratory procedures. Chi square test was used for statistical analysis of data.

Results: Overall rate of contamination of HWAO was 28.26% (13/46) with 32.4%(12/37), 16.7% (1/6) and was 21.8%,50%,66.67% and 15.38% respectively in wards, ICUs, Casualty and OPDs (P >0.05 NS). Pseudomonas aeruginosa (5 strains) was the predominant isolate (29.41%), followed by 3 strains of A. baumannii (17.64%). Association of isolates from cHWAO was observed in 11 nosocomial infections. Questionnaire revealed use of savlon in 80.43% of HWAO with variable concentrations (2.5% to 17% v/v) not prepared by a designated HCW. Changing antiseptics was once daily in (63.3%),twice daily (19.6%) and thrice daily in (2.2%). Majority of the containers were washed by soap and water (73.9%)(34/46).Usage of HWAO/day by HCW was 0 to 15(excluding students). Response to questionnaire method by HCWs was moderate (60%).

Conclusions: Higher rate of cHWAO with Pseudomonas aeruginosa and Acinetobacter baumannii as most common isolates was observed, possible role of which as source of nosocomial pathogens could not be ruled out by antibiogram typing of isolates. Variable concentrations of antiseptics and variable number of HCWs using HWAO and improper washing of containers were found to be risk factors for contamination.

Following a smoky trail: an evaluation of the pattern of tobacco use among medical aspirants, undergraduate medical students and doctors

Devyani Thakur, Shweta Karn

Background: The entire world has an anti-tobacco stand and the medical fraternity is uniquely placed to lead an active role in this combat. Nevertheless, tobacco use remains common in this group and a superior knowledge of tobacco-related risks does not always correlate with low consumption. This study is directed towards - medical aspirants, undergraduate medical students and doctors. It assesses the prevalence and factors that lead to tobacco consumption, corrective strategies that should be put in place and the level at which they should be applied for maximum benefit.

Methods: A questionnaire based survey was conducted among medical aspirants, undergraduate medical students and doctors. A self-structured, anonymous questionnaire was administered. It included points on demographic information, pattern of tobacco consumption, factors influencing initiation and quitting, preventive measures and views on doctors who consumed tobacco. The results thus obtained were compiled and statistically analyzed.

Results: There were a total of 210 respondents (29 % doctors, 48% medical students, 24% medical aspirants). The overall prevalence of tobacco consumption was found to be 32%, smoking being the most common. The most important factor responsible for initiation was peer pressure. Most people started in medical college, around the median age of 20. Most of them had never intended to start smoking and majority of those who were, intended to give it up. However, most respondents felt it was alright if doctors smoked as it was their life and they were free agents. The best way to prevent tobacco consumption came out to be increase in anti-tobacco propaganda especially at school level and making tobacco products unaffordable.

Conclusion: A prevalence rate of 32% smoking among the respondents with most of them setting on this trail in medical college, calls for corrective strategies in the form of anti-tobacco propaganda being directed at this level and prior to this.

Detection of antibiotic sensitivity in multi drug resistant microorganisms using red wine

R Vyshnavi, S Raveena, M Anitha

Background: Numerous studies have been documentedtowards health benefits of red wine consumption, including anti-oxidative, anti-carcinogenic, anti-inflammatory and anti-cardiovascular and antibacterial properties. Inhibitory effects against pathogens may be attributed to the catechin and resveratrol found in red wines.

Methods: Antibiotic susceptibility test of the selected strains were determined by the standard disk diffusion method. The wine extracts were tested using agar well diffusion method according to CLSI guidelines. Overnight bacterial cultures were inoculated to Petri dishes containing 15 mL of MHA. MIC concentration of 0.5 mg/ml of red wine was used for sensitivitytesting. 4 equidistant wells, 4 mm in diameter each, were punched into the inoculated medium with sterile glass Pasteur pipettes and were filled up with 10µl of wine andwere incubated at 37 °C and inhibition zones were measured after 24 h.

Results: The following zone of maximum diameter was obtained for the MIC dilution in these organisms:
Staphylococcus aureus: 1.1500mg/ml–22mm,2.750mg/ml–18mm, 3.375mg/ml-13mm, C-control, klebsiella pneumoniae: 1.1500mg/ml–29mm,2.750mg/ml-20mm,3.375mg/ml-6mm, C-control and escherichia coli: 1.1500mg/ml-27mm,2.750mg/ml-19mm,3.375mg/ml-13mm,C-control. Maximum zone of diameter was obtained at a concentration of 1500 mg/ml when compared to the other concentration shown against the control.

Conclusion: The high level concentration of (1500mg/ml) red wine shows bactericidal effect on the isolates like staphylococcus aureus, Klebsiella pneumonia and Escherichia coli. There was resistance observed in association with reduced concentration of alcohol.The components of red wine showed extensive sensitive zone for gram negative bacilli in comparison to gram positive organisms which was resistant. Thus red wine can be used in the treatmentof infections as proved by our study when the world is facing the crisis with LACK of sensitive drugs for the lethal MDR GNR!!!

Evaluation of knowledge and practice of nursing staff about prevention of nosocomial infection in a tertiary care hospital

Shreya Gandhi, Ujjwala Dehankar

Introduction: HAI is an infection that develops in a hospitalized patient that was not present or in incubation at the time of admission and becomes evident during the patients stay in the hospital or after discharge. The nurses being in direct contact with the patients play an important role in preventing HAI and thus there is a need to assess their knowledge and practice.

Methods: A standard questionnaire composed of 5 sections and 33 questions was prepared and administered to each nurse to be filled and submitted back and data was analyzed by percentage analysis.

Results: We found 31.25% nurses were able to correctly define HAI and 50% knew the causative organisms. All believed that a health care worker is at the risk of acquiring HAI with 97.5% knowing about measures to prevent them. However, only 17.5% knew what HICC is. They are well aware about measures to prevent an infection with 100% knowing the correct post exposure prophylaxis for needle stick injury and 96.25% for mucosal and non intact skin exposure. 98.75%

knew the correct recommendations for care of infective patients and 81.25, 72.5 and 41.25% the correct methods to collect urine sample from catheterized patient, precautions while suctioning and measures following a blood spill respectively. There was 100% awareness with regards to waste disposal, disinfection and hand washing and universal precautions, with and 87.5% nurses thinking they are to be followed compulsorily by everyone and 71.25% recommending universal precautions be followed for all the patients at all times.

Conclusion: We found the nurses to be well aware regarding methods for waste disposal, hand washing, sterilization and disinfection and universal precautions, however, there is need to educate them about the measures to prevent an infection and the details and committees responsible for prevention of HAI along with written guidelines and some educational programs.

Effect of ethnicity on facial emotion recognition abilities: a cross cultural study

Navdeep Dehal, Rashmi Rungta, Rishikesh V Behere

Introduction: The ability to recognize emotions is unique to Homo sapiens. Impaired recognition of emotions is an integral deficit in various neuropsychiatric disorders such as schizophrenia and autism. However emotion expression and recognition is subject to cross cultural variations and this can have important implications in emotion recognition research. This study aims to understand cross-cultural variation in facial emotion recognition abilities. It is expected that a particular ethnic group will be able to identify emotions of their own ethnicity faster and more accurately than others.

Methods: 25 students each of Mongoloid, Caucasian, Negroid and Indian origin in age range of 18-30 years with no history of psychiatric or neurological illness in them or their first degree relativeswere recruited after informed consent. The subjects viewed 40 facial emotion stimuli [2actorsX4ethinicity (mongoloid, Caucasian, negroid, Indian) X5emotions (anger, fear, neutral, happy, sad)]; derived from Tool for Recognition of emotions in Neuropsychiatric disorders (TRENDS) and NIM STIM Face set. The subjects identified the emotion from 3 choices (fear, anger or none of these) and reaction times were recorded.

Results: Ethnicity index is defined as percentage of correct response for one particular ethnicity to all the correct responses for subjects belonging toeach ethnicity. The ethnicity index was the highest for their respective ethnicities in most cases. The over identification, which is a measure of emotions wrongly identifiedas fear or anger were also least for the same ethnicity stimuli. The group differences were not significant on ANOVA.

Conclusion: Study demonstrates that ethnicity influences facialemotion recognition abilities. People tend to identify emotions expressed by people of their own ethnicity more accurately as compared to the remaining ethnicities.

Assessment of cognitive function in adult diabetics using Addenbrooke's Cognitive Examination- Revised (ACE-R) - a case control study.

Rashmi Roongta,Chythra R Rao, Muralidhar Varma, Sumanth Madan

Background: Type II diabetes has been found to be associated with cognitive impairment. Factors like hyperglycemia, advanced glycation end products,inflammatory cytokines, deposition

of amyloid and poor glycemic control are associated with microangiopathy, neuronal loss and cognitive impairment.The diagnostic accuracy Addenbrooke's Cognitive Examination- Revised (ACE-R) in identifying early dementia has been assessed and will be used to compare the extent of cognitive dysfunction between diabetics and non-diabetics.

Methods: A case control study in which 63 diabetics above the age of 50, with duration of disease more than 10 years, with or without hypertension and hypercholesterolemia, of either sex, with no other co morbid illnesses and 63 non-diabetics were evaluatedin a tertiary care hospital using a standard ACE-R form. Written informed consent of the subjects was taken. The control group was age and gender matched and one control was selected for each case. The extent of cognitive dysfunction among diabetics and non-diabetics was expressed as percentages and proportions. Odds ratio wascalculated to estimate the risk among cases and controls.

Results: The study included 63 diabetics and 63 non diabetics. Among the subjects, 90 were males and 36 were females and mean age was 58 years. Mean duration of diabetes among diabetics was 14 years. Independent sample t-test used to test the mean differences between the total score according to ACE revealed mean score (+S.D.) for cases to be $78.87 + 9.57$ and $88.02 + 6.67$ for controls, $p< 0.001$ (95% C.I. -6.23,12.05). Using the cut-off value of 87.5 for ACE score, odds ratio was 6.25(95% CI -2.82, 13.83). 50 cases and 24 controls had total score of less than 87.5.

Conclusion: Cognitive dysfunction was more in diabetics then non diabetics. The odds that people who had cognitive dysfunction were diabetics are 6 times more as compared to people who are non-diabetics.

The effect of a hyperlipidemic state on urine expression of rifampicin and its association with pulmonary tuberculosis

Sumanth Madan, Meena Kumari, Rahul Magazine, Pragna Rao, RudraRamanathan, Afreen Ahmed, Suhasini Kamath

Background: Rifampicin is an antibiotic and imparts an orange colour to the urine of users, for a few hours after a dose. About 7% of the administered drug is excreted through the urine. Studies have shown that hyperlipaedemia will cause decreased absorption and rate of expression in urine. This study will compare the urine levels of rifampicin in normal and h1yperlipidaemic subjects and thus establish the use of rifampicin as a diagnostic tool for hyperlipidemia in pulmonary tuberculosis.

Methods: A cohort pilot study will be conducted at a tertiary care hospital in which ten subjects with tuberculosis with normal lipid profiles and ten with deranged lipid profiles will be given one tablet of rifampicin in the morning on empty stomach over one month. Urine samples will be collected at 1,3 and 5 hours. The quantity of rifampicin which is estimated using a colorimeter. Tests results are standardised by taking a specific concentration of rifampicin matrix and dissolving it in a known volume of urine and colour analysed accordingly. The results will be analysed using SPSS.

Results: Twelve patients,two females and ten males, with pulmonary tuberculosis and on Rifampicin 450mg were taken for this study. Their urine was analysed for concentration of rifampicin and correlated to their total cholesterol and triglycerides values. Seven patients were found to have high cholesterol and triglyceride values. Five out of the seven patients showed decreased expression of rifampicin in urine. The other patient who showed decreased expression was 85

years old. The values of rifampicin in these five patients wasfound to be ranging from 35- 65 mcg/ml in comparison to above 100mcg/ml in patients with normal cholesterol and triglyceride values.

Conclusions: These results show that hyperlipidemia has effect on absorption of rifampicin. This has to be still evaluated on a larger patient population.

Assesment of symptoms associated with teething and their correlation with eruption of teeth in infants aged 5-30 months- a cross-sectional study

Anusha Chintala, Sagar Patel

Background: Globally teething has been held responsible for wide variety of childhood illnesses. The effect of teething on infant's health has been debated for at least 5000 years and traditional beliefs on this issue have still not been entirely supported by scientific findings. Till date, few studies have been carried out in India to assess the knowledge of parents about teething. The objectives of this study are 1) to assess the most frequent clinical signs and symptoms during the eruption of primary teeth. 2) To assess the correlation between signs and symptoms of teething with eruption of different primary teeth.

Methods: The study was a cross sectional questionnaire study. The study was carried out among 500 parents with their infants and children between 5-30 months at KLES Dr.Prabhakar Kore Hospital, Belgaum after obtaining ethical clearance. Parents were briefed about the study, strict confidentiality assured.

Results: Response to teething was incorrectly attributed to diarrhea (71.8%), and drooling (27.8%) fever (21%). No significant differences were found between eruption of different teeth.

Discussion: The timing of eruption of the deciduous incisors (6-12 months) coincides with the reduction in circulating maternal humoral immunity and the establishment of a child's humoral immunity. Most children of this age are susceptible to a myriad of relatively minor infections. The symptoms of elevated temperature, facial rash, irritability, and loss of appetite could also be due to infection with the human herpesvirus 6 (HHV-6), which is ubiquitous among infants of teething age.

Conclusion: We conclude that there is definite correlation between eruption of teeth and clinical / systemic disturbances. More educative programs should be initiated to make parents aware of teething myths and realities.

Detection Of ESBL (Extended Spectrum Beta Lactamases) in Gram negative bacilli isolated from various clinical samples

Deeptha Vasudevan, K Senthilkumaran

Objectives: Extended-spectrum beta-lactamases (ESBL) are enzymes that confer resistance to most beta-lactam antibiotics including 3rd generation cephalosporins, monobactam and aztreonam. ESBL-producing organisms have been associated with high incidence of treatment failures results in poor prognosis. Reliable identification of ESBL-producing organisms in laboratories can be challenging but very useful. Hence the study was carried out to detect the ESBLs in the various gram negative bacilli isolated from various clinical samples.

Methods: A total 51 gram negative bacilli isolated from various

clinical samples were included for this study. The isolates were screened for ESBL production by the Phenotypic conformation- Disk diffusion method, Cetazidime (30µg) vs. ceftazidime/ clavulanic acid (30/10µg) were placed on to Mueller Hinton agar plate lawned with the test organisms and it was incubated overnight at 35ºC. Regardless of zone diameters, a ≥5 mm increase in a zone diameter of an antimicrobial agent tested in combination with clavulanic acid vs tested alone will indicate ESBL production.

Results: Out of the 140 clinical samples collected from patients, 51 gram negative bacilli were isolated. The isolated organisms include klebsiella (22), E.coli (16), pseudomonas (8), proteus (4) and acetinobacter (1). Of the 51 isolates, 19 (37%) were ESBL producers by our method. Among the various samples, pus was having more number of ESBL producers - 9 (47%), followed by urine (26%). Among the various isolates, all the strains of proteus (100%) were ESBL producer followed by 37% of pseudomonas, 32% of klebsiella and 31% of E.coli.

Conclusion: This study showed that klebsiella is the most common gram negative bacteria isolated from our setting. The incidence of ESBL is 37% which correlates with the studies published in literatures. Pus sample is the most potential source of ESBL producers. Proteus species are the major ESBL producer in our study followed by pseudomonas. The high incidence of ESBL producers explains the importance of microbiological laboratories and its facility to detect ESBL as a routine diagnostic testing method.

Study of factors affecting menstrual patterns and problems among adolscenct school girls in Wardha
Kriti Gupta

Background: Menstrual disorders are one of the most common medical problems in adolescence girls.
Simple measures can be taken to prevent them and help the adolescence population of rural districts.It comes to our dismay to realize that most of these cases go undiagnosed as adolescence girls hesitate to visit doctors regarding such problems.This study is undertaken to know the pattern of their menstrual cycles,the menstrual problems they suffer and give health education to the participants.

Methods: This cross-sectional study was conducted in the 7th,8th and 9th standards of School of Scholars School at Wardha in a duration of 2 months.Girls suffering from menstrual problems were referred for medical consultation.Health education was given.

Results: Out of the 150 girls,48 suffered from menstrual disorders.38 of them were vegetarians. Most girls with menstrual disorders had BMI of 19-22, daily calorie intake of 1100-1400 cal, fat intake of 5-10g,Calcium intake of 300-500mg,Protein intake of 26-40g,Sugar intake of 20-30g, Age of menarche of 12-13 years,Duration of menstruation of 5-7days.8 girls had high caffeine intake.27 girls had family history of menstrual disorders.16 were seeking medical help,3 were taking self medication.3 girls had other medical conditions.
The remaining girls had no menstrual disorders.The factors were studied for them as well and compared.

Conclusion: 32% of adolosence girls suffer from menstrual disorder. The most common disorder was dysmenorrhoea, followed by Menorrhagia, Oligomenorrhoea and Pre-menstrual syndrome.Girls suffering from dysmenorrhoea and menorrhagia had higher BMI,and those suffering from oligomenorrhoea had lower BMI compared to girls with no disorders. Girls with dysmenorrhoea had lower calcium intake and higher caffeine intake compared to other girls.In girls

with menstrual disorder,80% were vegetarians, 57% had family history and 34% were seeking medical help.

Efficacy of anti-bacterial activity of Calotropis gigantea latex extract- an in-vitro study
Hemapriya J, Anitha M

Background: Due to increase in multi-drug resistance and toxicity among microbes, search for a novel antibiotic from a medicinal plant is on rise. One among them is Calotropis gigantea, a medium-sized shrub. Its root, bark are used in the treatment of leprosy, piles, wounds, tumors, parasitic infections and dysentery. Our aim is to evaluate the antibacterial effect of Calotropisgigantea latex extract on several established drug resistant human pathogenic bacteria.

Methods: 15 samples were collected from our hospital and tested against antibacterial activity of C.gigantea for 3 months. Fresh latex of C.gigantea is aseptically collected in sterile glass tubes containing distilled water. Samples were centrifuged at 3000rpm and supernatant was decanted. The decanted fraction was subjected to filtration using DIALYSING MEMBRANE. ETHANOL extract were used. Inhibitory effect was assessed by well diffusion method. 1.06g/ml MIC was determined by serial dilution method. Suitable concentration of antibiotics was used as reference drugs.

Results: The following picture depicts the resistance & sensitive zone with   MIC Proteus Mirabilis:1=1060mg/ml-32mm,2=530mg/ml-25mm,3=265mg/ml-24mm, Pseudomonas Aeruginosa:1=1060mg/ml-24mm,2=530mg/ml-22mm, 3=265mg/ml-6mm. Staph. aureus : 1=1060mg/ml-17mm, 2=530mg/ml-11mm, 3=265mg/ml-6mm. 1060mg/ml concentration showed Maximum Diameter Zone when compared with other concentrations.

Conclusion: The ethanol extract of Calotropis showed extensive sensitive zone for Gram negative bacilli like Proteus,Pseudomonas in comparison with Gram positive bacteria like Staphylococcus aureus where resistant zone was demonstrated. Therefore we recommend the use of Calotropis as an Antibacterial agent for Gram negative bacilli which are Multi Drug Resistant in nature and a nuisance in Hospital acquired infection with ESBL and Metallo beta-lactamase production. Thus Calotropis can be used as an adjunct in the treatment of MDR Gram negative infections as proved by our study.

The prevalence and conditions associated with anemia, and the effectiveness of iron supplementation to reduce anemia in pregnancy.
Navuluri Kranthi Kumar Reddy, Kolli Sree Karuna Murthi

Background: Anemia in pregnant women is one of the major public health problems,in India. This problem is largely preventable & easily treatable, if detected in time. Anemia still continues to be the common cause of morbidity and mortality in India. In this contest the present study dealt with the study of prevalence of anemia among pregnant women who were admitted in our hospital and its relation to age at pregnancy, number of pregnancies, number of abortions, weight of mother at the time of delivery, weight of baby at birth and effectiveness of Iron administration in treating anemia in pregnant women. By the above observations the prevalence of anemia among pregnant woman in the locality, relation of anemia to the above mentioned parameters and effectiveness of iron treatment is assessed and thus establishing a relation between these parameters with anemia is aimed at.

Methods: This is a retrospective study and the data was collected about the concerned parameters of pregnant women who were admitted for delivery in our hospital during October to December 2012. Sample size for the study was 225 mothers. Data is collected from the Medical Record Department. Data was collected regarding age at pregnancy; weight of the pregnant women, Haemoglobin status during first and last trimester of pregnancy and record of Iron treatment to the anaemic. Anaemia is classified into no anaemia (>11mg/dl), mild anaemia (9-11mg/dl), moderately anaemia (7-9mg/dl) and severe anaemia (4-7mg/dl), very severe anaemia (<4mg/dl). The obtained data was statistically analysed by using SPSS and the results will be presented in the form of bars, graphs, pie diagrams, mean deviation, standard deviation and tests of significance.

Results: Total No of deliveries during the 3 months 225. Distribution of age of the pregnant women <20 years is 33.4%, 21-29 years is 62.2% and >30 years is 4.4%. 43.6% of the totaldelivered women is in 1stgravid, 40.9% are in 2ndgravid, 12.4 in 3rdgravid, 2.2% in 4thgravid, 1.3% in 5thgravid and 0.4% in 6thgravid. Of the total 225 mothers 33 didn't pay visit to any medical institution or hospital. In the total 225, 15.6%undergo abortions with a distribution of 11.6% with 1, 2.7% with 2, 0.9% with 3 and 0.4% with 4 abortions. Prevalence of anaemia among the pregnant women during the first trimester is 16% are moderately anaemic 38.2% are mild anaemic and 31.3% are non anaemic and for 14.7% medical records are not available and the same at the time of delivery is 8% are moderately anaemic 28.9% are mild anaemic and 63.1% are non anaemic. In connection with Iron and folic acid treatment among the anaemic cases 29.5% show an increase of 1% of Hb 23.77% showed an increase of 2% Hb and 31.1% show an increase of >2% Hb increase. Out of the total anaemic 68.6% delivered babies with less than average birth weight i.e., 2.8 Kg.

Conclusions: Prevalence of anaemia among pregnant women is high. Iron and folic acid treatment show a significant increase in the haemoglobin levels of the anaemic pregnant. There is significant relation between the weight of the child at birth and haemoglobin levels of the mother in the last term. Also awareness should b increased among the public to make the gravid women to have medical care and attention for a good mother and child care.

Prevalence of dysmenorrhoea, its severity and impact on the quality of life among medical students of Udaipur, Rajasthan.

Tuhina Cornelius, Suhel Abbas Sabunwala

Background: Dysmenorrhoea is a common gynaecological disorder among female adolescents that impacts on the quality of life with the activity clearly inhibited. Adolescent girls especially of medical colleges owing to lot of academic stress are more prone. Hence arises a need to explore the problem of dysmenorrhoea faced by medical students and correlation with biologic variables.

Method: 300 medical students were surveyed for this cross sectional study. The study included those medical students who were unmarried, nulliparous, healthy and aged 18 to 25 years. The participants were expected to fill a predesigned questionnaire. Degree of pain was assessed by verbal multidimensional scoring system. The extent of limitation of daily activity was graded by quality of life scale. Waist circumference and BMI was calculated. Statistical data analysis was done.

Result: The mean age of the participants was 20.86 +/-1.96years; mean BMI was 20.82+/-3.09 kg/m2. The average age of menarche was 13.1+/-1.27years (7- 16 years). The average age of menstrual cycle

was 13.1+/- 1.27 days and average menstrual cycle duration was 35days. 66.25% of the total participants experienced dysmenorrhoea. Of these 26.7% reported family history. Dysmenorrhoea was mild in 71.9% of participants, moderate in 26.1% and severe in 3.18%. Of those who experienced dysmenorrhoea 39.4% practised self medication with analgesics (90.3%) and antispasmodics. 75% of participants reported to have PMS- psychological PMS (38.5%) and physical PMS (61.5%). Severity of dysmenorrhoea is significantly associated with the quality of life, clearly hampering it.

Conclusion: Dysmenorrhoea was highly prevalent among medical students and has a detrimental effect on their quality of life. There was an alarming prevalence of self medication in form of NSAID's. The study shows a significant association of dysmenorrhoea with the age of menarche, length of menstrual cycle, PMS, dietary habits and physical workout. Life style modification may

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Evaluation of 25-hydroxy vitamin D and calcium status and correlation with insulin resistance and serum magnesium level in type 2 diabetes mellitus

Keerthi Jain, Mahender Gandhi

Background: Vitamin D is essential for normal growth and development.Low vitamin D is indicated with higher rates of increased in insulin resistance, weight and BMI (body mass index). More evidences are available in adults suggesting vitamin D deficiency in adulthood may be associated with chronic disorders including Type 2 Diabetes mellitus. Some experimental studies shown that vitamin D is having role for glucose induced insulin secretion, improves insulin resistance and exerts anti-inflammatory effect. With this study, we are verifying whether any significant association is present or not between vitamin D status and serum calcium and magnesium level with insulin resistance in Type 2 Diabetes mellitus.

Methodology: This is a case control study. 30 cases were selected from freshly diagnosed cases of Type 2 Diabetes mellitus visiting MGMC&RI medicine department OPD who were not taking any type of treatment which can affect vitamin D, Magnesium or Calcium status. 30 healthy age and sex matched controls were selected from same population with prior informed consent and weight, height, waist circumference, BMI and blood pressure will be calculated along with serum 25-OH-D level ,fasting plasma glucose ,serum calcium and magnesium levels were obtained by standard norms .Statistical analysis would be done by using multivariate regression analysis using SPSS 17.0 software. Test of significance were calculated by student's t test. Value p<0.05 would be statistically significant.

Results: In our study, patients with Type 2 Diabetes mellitus had significantly lower 25-hydroxyviatmin D level as compared with healthy controls without T2DM. Mean 25-hydroxyvitamin D level among subjects were lower than healthy subjects (p<0.01). Serum calcium, magnesium level were also significantly low in T2DM cases as compared to healthy controls (P<0.01).

Conclusions: Calcium is important for insulin secretion and vitamin D is important for calcium absorption. So in this study, we got significant low level of vitamin D and calcium in T2DM cases as compared with healthy controls in age and sex matched controls.

A cross sectional study of neurological soft signs in schizophrenic patients as an indicator of functional status and its relation to family history

Aditya Rajpal, Rajeshkrishna Bhandary P, Ravindra Munoli

Introduction: Neurological soft signs (NSS) are non-specific indicators of brain dysfunction that are found to be in excess (73% as per meta-analysis of 33 studies) in patients with schizophrenia. Cognitive performance, positive and negative symptoms share 2%-10% of their variance with regard to this (Chan et al 2010). NSS were significantly decreased in patients over 1 year, more so in patients with a favourable versus a chronic course (Bachmann et al 2005). Higher NSS scores have also shown to impede improvement even with treatment (Das et al 2004). NSS were significantly more common in first-degree relatives of people with schizophrenia and in twins than in controls (Neelam et al 2011, Niethammer et al 2000). Longitudinal data suggest NSS as both a trait and state variable in the course of disease. While studies have been looking at it as an endophenotype, no studies have directly assessed its relation to functional outcome. Hence, this study is being taken up to see if NSS and a family history can in any way predict a functional outcome for the patient which will be of more use in a clinical setting.

Methods: 50 out-patients with consultant diagnosis of schizophrenia, aged 18-45 who are cooperative and not having any significant medical or psychiatric co-morbidity were taken into the study. Simpson-Angus Scale (SAS) was administered to exclude role of extrapyramidal side effects of antipsychotics which could contribute to the NSS (score >0.65). The duration of study was month. Those fulfilling criteria were administered the Neurological Evaluation Scale, SOFS (Social Occupational Functioning Scale) and Family Interview for Genetic Studies (FIGS) to get adequate family history.

Results: Interim analysis of 26 patients found significant correlation between scores on Neurological soft signs sub set of sequencing complex motor tasks on total SOFS score (r= 0.518, p=0.007) as well as on all its subsets of adaptive skills (r=0.498, p=0.01), social skills (r=0.409, p=0.038) and interpersonal skills (r=0.571, p=0.002). Total scores on Neurological Soft signs found correlation with only interpersonal skills subset of SOFS (r=0.397, p=0.045). No significant association was found between score on neurological soft signs and specific type of family history.

Conclusion: Neurological Soft signs especially the subset of sequencing complex motor tasks may have a role in indicating a functional outcome for the individual. The findings would need to be replicated with larger samples. Elaborate statistical analysis may be required to assess the family history as relation to number of members affected, degree of relation, interrelation between type of illnesses in family history were not adequately studied here.

Role of consanguineous marriage in causing congenital deafness
K Sanjana Reddy, Raghunath Shanbag

Background: Consanguineous marriages are a deeply rooted social trend that is culturally and socially accepted in several parts of India. It's prevalence particularly in rural areas is attributed to the lack of awareness of its detrimental effects on the offspring. The closer the biological relationship, greater is the possibility of expression of autosomal recessive genes and other congenital disorders. Thus, our study aims to explore the role consanguineous marriages in causing congenital deafness and to rule out the presence of some other risk factors in causation of deafness.

Methods: A cross sectional study was carried out at P.V.Datti Rotary school for the Deaf catering to the population of Hubli. Study participants are parents of all the students enrolled into classes I-VII. Parents were interviewed and statistical tests were employed on the data collected.

Results: 26 children out of 46 were born to consanguineous couples. All showed first degree consanguinity. Few other possible causes that may have lead deafness in these children were ruled out based on history given by parents.

Conclusions: The findings demonstrate the high prevalence of deafness among children born to consanguineous couples. There arises a need to implement planning at a national level to spread awareness about the consequences of consanguineous marriage.

Assesment and evaluation of CAD risk in HIV positive patients in Indian setting
Anmol Sharma

Background: Cardiovascular disease is the leading cause of non-HIV-related death in people with HIV infection. Risk in HIV-infected persons appears to reflect contributions of non-HIV-related cardiovascular risk factors, the chronic inflammatory response in HIV infection, as well as metabolic adverse effects of antiretroviral therapy like insulin resistance, dyslipidemia, abnormal fat distribution, and hypertension. This study is thus aimed to ascertain the magnitude of the problem of coronary artery disease in these patients and to ascertain if Framingham screening score can be used in HIV patients and then if feasible give recommendations for routine preventive screening in HIV positive patients.

Methods: This cross sectional study will be conducted in a multispecialty hospital. All male patients above the age of 35 years will be included. The study will include 15 consecutive HIV positive male inpatients and 15 age matched controls. Each individual in the study will undergo basic biochemical analysis, Electrocardiogram, CD4 count (Only for TEST ARM) along with basic history. All cases will be subjected to a 2D Echocardiogram and Tread Mill Test. The controls will be matched for age, smoking, exercise habits as required. Standard protocol forms will be made for each patient. Anonymity of all patients will be strictly ensured. Consent will be taken in all cases. Ethical clearance from the institution has been taken.

Results: Bio statistical comparative analysis of the data showed greater Framingham heart score and Risk percentage of CAD to be more in retropositive patients as compared to the controls in age matched sub groups. Preliminary biochemical analysis also showed association with the results.

Conclusion: Risk of developing CAD is more in HIV positive patients than HIV negative patients in Indian Setting.

Perception regarding the topic of "sex education" (S.E) among teachers of middle to higher secondary standards in English medium schools in Pondicherry
Sulekha Jain S, Bharatwaj RS, Divya S

Background: The topic of "sex education" is much talked about as a necessity in academic circles as an important component of adolescent health, but there is no common clear idea as to what it entails. Since school teachers are the nodal point for delivery of "sex education" we want to find out their perception regarding this topic.

Methods: A cross sectional study among school teachers, teaching from middle to higher secondary standards of two English medium schools in Pondicherry chosen by convenience method. The study

tool is a pretested questionnaire gathering details like, educational qualification, gender, opinion of teachers regarding the topic of "sex education" etc. The information was compiled and transformed into percentages for analysis.

Results: 23 of 100 teachers did not return the survey formats showing their disinterest in this topic. Amongst the respondents, 97% felt 'sex education' is necessary for students and in their opinion the major things to be included were biology (13%), discipline and social awareness(43%) . The major need they saw in 'SE' was to create a disciplined life to enhance awareness and thus safety(54%). 90% felt SE is important to both girls and boys and most preferred in the age category of 12-15 years .Majority (86%) of teachers have never conducted any SE class. 86% felt that they needed special session for teachers to be trained in conducting SE. About 69% said the term "SEX EDUCATION" is all right and and 62% said active participation of parents in SE is necessary.

Conclusions: Most of the teachers are uncomfortable and feel incompetent with the topic of SE in spite of feeling its importance for the students. The perception of teachers on SE focuses more on discipline and safety with minimal importance given to its emotional and psychological aspects.

Corelation study of dietary habits and early renal damage in hypertensive patients

Shashi Shekhar M, Avikiran Kisan, Praveen Kumar

Background: Hypertension is one of the most common non-communicable diseases with high morbidity and mortality rate. Hypertension is a result of complex interactions between non-modifiable genetic and other modifiable risk factors. Dietary habits play a vital role in modifiable risk factors; as non-vegetarian diet increases the risk of hypertension and results in cardiovascular, renal and other manifestations. Microproteinuria has shown to be a reliable index to predict the development of early renal damage. Also inflammatory markers like C-reactive protein (CRP) are also found to be raised in hypertension. Hence the present study was undertaken to study the relation between dietary habits and hsCRP (high sensitive CRP) levels and also to compare the degree of early renal damage in hypertensive patients on vegetarian and mixed diet.

Methods: The present study was conducted on 60 patients at SSIMS & RC, Davangere who were selected by using inclusion and exclusion criteria. After obtaining informed written consent, detailed medical and dietary history was obtained, detailed medical examination was done. Two milliliters of blood sample was collected under aseptic precautions to assess hsCRP levels. Random urine sample was collected for estimation of microproteinuria.

Results: The hsCRP and microprotein in urine was significantly elevated in mixed diet hypertensive subjects compared to patients on vegetarian diet. (hsCRP: mixed diet-4.2±1.7mg/L, vegetarian diet-3.4±0.9mg/L; P value=0.02. Microprotein in urine: mixed diet-41.4±20.8mg/dl, vegetarian diet-29.9±15.3mg/dl; P value=0.01)

Conclusion: Hypertension is not a curable disease and its prevention is a very difficult task. But delaying its complications can be achieved by control over hypertension and simple modification of risk factors. Hence the present study helps to establish that a simple change from mixed diet to vegetarian diet is helpful to control early renal damage.

Nutritional assessment and graft outcome in post-renal transplant recipients

Gokul Ramani, Deepachitra D, Georgi Abraham, Milly Mathew, Nancy Lesly

Introduction: Malnutrition, which is very frequently encountered in CKD, may persist even after successful renal-transplantation. We sought to evaluate the relationship between Serum Albumin(S-Albumin) and various indicators of nutritional status; and the relationship between S-Albumin levels and patient survival.

Methods: We studied the database of 199 post-transplant patients who successfully underwent renal transplantation(between 1985-2012) at a tertiary-care-center. A batteryof indicators of nutritional status were used: Albumin, Hemoglobin(Hb), electrolytes, Creatinine, prednisolone-dose, lifestyle factors,like smoking, alcohol,diet, Body Mass-Index(BMI), and presence of Diabetes Mellitus(DM). We classified S-Albumin as <3-3.4g/dL, 3.5-3.9g/dL, and 4+g/dL;andBMI as per WHO-guidelines, underNormal(18.5-24.99kg/m2), Pre-Obese(25-29.99kg/m2), Class-1 Obesity(30-34.99kg/m2), Class-2 Obesity(35-39.99kg/m2), Class-3 Obesity(40kg/m2). Using Dual-Energy-X-Ray Absorptiometry(DEXA),we studied the Body-Composition, categorizing it into Lean Body-Mass, Fat Body-Mass and Fat-Percentage(Fat%). Using IBMSPSS, we used descriptive, Co-relational Statistics and Pearson's Chi-Square-test(two-tailed), to determine the independence.

Results: Of the sample studied, 150 were males and the rest, females. The mean age was 46±13 years, and the mean S-albumin value, 3.6±0.6g/dL, with no significant difference between the sexes. 10% had a normal BMI, 62% Pre-Obese, 21% Class-1, 5% Class-2, and 2% Class-3 Obese. 76% ate a meat-based diet and 24% were vegetarians. The mean dose of prednisolone prescribed was 20±10mg/day. 5% of the transplant patients were deceased and 1%, had graft failure. We found a significant positive correlation between S-albumin and Hb(p=0.002), LDL(p=0.046), Fat%(p=0.032) and a meat-based diet(p=0.032). 46% of those eating a meat-based diet had an S-Albumin value of over 4g/dL, in contrast to 25% vegetarians. 66% of the vegetarians had an S-Albumin ranging from <3-3.4 g/dL. We also found negative correlations between prednisolone dose and S-Albumin(p=0.005), FM(p=0.006), Fat%(p=0.002) and Serum Creatinine(p=0.013). No significant co-relation was observed between S-albumin, BMI, DM, Smoking, alcohol and patient-survival.

Conclusions: Serum Albumin is significantly higher among those eating a meat-based diet following transplant. Lower maintenance doses of prednisolone may improve the Albumin Levels. A further randomized controlled trial looking at the effects of protein supplementation in vegetarians following renal-transplant and evaluating the effect of lowered prednisolone dose is warranted.

Knowledge, attitude, practices and gender bias in weaning of infants in a tertiary care hospital in Nagpur

G Salpekar, Himanshu Dua

Introduction: Guidelines issued by the WHO recommend that a child should have exclusive breastfeeding till 6 months of age. Weaning is the gradual withdrawal of child from the breast. Weaning is the most crucial period in child development, for during this period children are exposed to the deleterious synergistic interaction of malnutrition and infection. Mothers are usually unaware of correct weaning practices. Home-cooked food and commercial formulas baffle mothers. Studies confirm the gender differences

in breastfeeding in India. The objectives thus are; to examine awareness among mothers about the fact that infants should be weaned from 6 months, to compare the gender bias in weaning and to compare the type of food to which the infant is weaned.

Methods: A community based cross-sectional study was carried out on 100 mothers attending the Paediatrics OPD in Lata Mangeshkar Hospital along with the Institutional Ethics Committee approval. Babies between 3 and 12 months of age were included. An Informed Written Consent was taken from the mothers. Mothers were interviewed using a questionnaire with variables such as type and place of delivery, age, sex and weight of the baby, gestational age, birth order, breast feeding, weaning and knowledge of mothers about weaning, etc. The data was collected, entered in Microsoft Excel and analysed by Chi-square test using Epi Info7.

Results: 84% mothers are aware about weaning. Significant gender bias is seen in weaning with p-value of 0.0004(p<0.05). Association between initiation of weaning and gender is statistically insignificant with p-value of 0.4783(p>0.05). 69% mothers prefer home-cooked meals as opposed to 31% favouring commercial formulas.

Conclusion: Though knowledge about weaning prevails, gender bias continues to exist. The adherence to correct weaning practices can be increased by promoting maternal education, institutional deliveries and by imparting awareness via sources of mass-media like TV, radio and newspapers.

Study of obstetric outcome in antepartum haemorrhage
Ayushma Jejani, Anjali Kawthalkar

Introduction: Obstetric haemorrhage is the world's leading cause of maternal mortality. Antepartum haemorrhage is defined as bleeding from or into the genital tract after 28weeks of pregnancy and before delivery of the baby. Antepartum haemorrhage is a grave obstetrical emergency and is a leading cause of maternal and perinatal mortality and morbidity. It complicates about 2-5% of all the pregnancies. In India, maternal and perinatal mortality is still very high due to associated problems like anaemia, difficulties in transport in cases of emergency and restricted medical facilities. Rising caesarean section rate, untreated pre-eclampsia and folic acid deficiency are changing the etiology of antepartum haemorrhage. The present study aims to understand the etiology of antepartum haemorrhage and to formulate preventive guidelines to improve obstetric outcome.

Methods: A retrospective analysis of cases of antepartum haemorrhage admitted at our tertiary care centre will be done over a period of 2years from January 2011 to December 2012. Data will be collected from the case record files obtained from record section to do the retrospective analysis. Statistical analysis of the data will be done. The data will be collected on a predesigned proforma and will be analysed using spss version 10.

Results: In our study, placenta previa was the most common cause of antepartum haemorrhage with an incidence of about 42.85%. Around 73.80% of these cases of antepartum haemorrhage were associated with caesarean section. Antepartum haemorrhage was responsible for high perinatal mortality(19.04%) and maternal morbidity.

Conclusion: Antepartum haemorrhage remains a major obstetric challenge even in modern obstetrics. Improvement in primary care facilities, good transport facilities, correction of antepartum anaemia, availability of blood transfusion facilities and early

referral can improve the obstetric outcome in these cases in future.

Relevance of Otoacoustic Emissions (OAE) in the screening of neonatal hearing in a tertiary care hospital– descriptive and exploratory study
Anusha Raj K, K.M Govindegowda

Background: Universal neonatal hearing screening(UNHS) at delivery centres enabling early detection of hearing impairment & resulting in children receiving early language rehabilitation doesn't exist in majority of hospitals in India. Main objectives of our study were to know usefulness of OAE as diagnostic tool for early detection and maternal factors affecting neonatal hearing impairment and its incidence.

Methods: Exploratory and diagnostic study was conducted at Mysore Medical College & Research Institute, with prior ethical clearance for 2months. Valid informed consent and detailed history was taken from all mothers prior to screening to know pre-natal & natal maternal risk factors. Sample size calculated to be 130 infants with incidence of 2%, Z-value of 2.51 and D-value of 0.1, were screened in sound proof room. Inclusion criteria were NICU infants, well babies with & without risk factors. Exclusion criteria were birth trauma, ear infections after birth. Hearing screening performed using Distortion Product OAE method with help of instrument called "Otoread". Results were divided into two groups, "pass" and "refer". Data obtained was compiled and statistically analyzed using descriptive statistics, frequencies & percentages, chi square test, logistic regression; in 'SSPS' for windows software.

Results: Out of 130neonates screened, 37neonates(28.46%) were found to have impaired hearing, with male predominance of 26(70.27%). Among the 37neonates, the main predictors with statistical significance were, consanguinity seen in 10cases(27.03%), family-history in 8cases(21.62%), prenatal risk factors in 12cases(32.43%) & natal risk factors like method of delivery, prolonged labour, birth cry, NICU admission, hypoxia, jaundice, congenital abnormality in 32cases(86.49%).

Conclusion: Children with hearing impairment have difficulty in learning vocabulary, verbal communication, educational attainment, behavior problems, decreased psychosocial well-being and poor adaptive skills. Considering the alarming incidence rate, UNHS should be adopted in tertiary care centers as a basic screening policy to help in early detection & subsequent rehabilitation for affected cases.

Study of cord blood parameters as the predictors of neonatal sepsis
Basavaraj KH

Background: Neonatal sepsis is a leading cause of mortality in developing countries. It accounts up to 30-50% of neonatal deaths where in, it is estimated that 99% of neonatal deaths occur in developing countries. Neonatal sepsis can be defined as the clinical syndrome of bacteremia characterized by systemic signs and symptoms of infections in the first month of life. Identifying sepsis, which often presents with nonspecific signs and symptoms in the neonate, is challenging. Therefore parameters like ESR, CRP, total WBC count etc. and its correlation with blood culture are the useful guide for us to predict neonatal sepsis at the primary level. This study was taken up, to diagnose neonatal sepsis as early as possible to reduce neonatal morbidity and mortality by providing an

appropriate treatment.

Methods: 70 neonates were diagnosed. All newborns irrespective of birth weight are included. Pregnant women with known history of hypertension, diabetes and proteinuria are excluded. After obtaining the consent from parents, the cord blood samples are obtained and studied for leucocyte count, platelet count, RBC count, neutrophil count, ESR, CRP and blood culture. Appropriate statistical methods will be applied for comparison of data.

Results: Based on the laboratory data, 70 neonates were classified into sepsis developed group (30 neonates 42.85%) & sepsis not developed group(40 neonates 57.14%). Among sepsis developed group 45.16% culture positive for gram positive bacteria and 54.83% positive for gram negative bacteria. The commonest bacteria isolated are staph.aureus(25.8%),Streptococcus spp.(19.355%), NFGNB(16.12%). In sepsis developed group total WBC count was abnormal in 43.33%, neutrophil count in 46.67%, RBC count in 40%, platelet count in 30%, ESR in 23.33% and CRP value positive in 6.7% of cases.

Conclusion: The findings of the present study confirms that the cord blood culturing with total WBC count and neutrophil count are more reliable in the early diagnosis of neonatal sepsis.

Communication dynamics of doctor patient relationship- a pilot study
Neetu Chaudhary, Ayesha Ahmad

Background: The doctor patient relationship is considered the keystone of care, to an extent that doctor has been referred to as 'the most frequently used drug in medicine'. Ever since Hippocrates pronounced his famous oath, this relationship has been under scrutiny. It is the subject of around 8,000 articles, monographs, chapters and books in medical literature. One of the most important aspects of this relationship - the art of communication is the most vulnerable point in the interaction between doctors and patients. Aims of the study include –to assess the dynamics of doctor patient relationship from the viewpoint of patient in the setting of our Medical College, to analyse the existing barriers of communication between doctors and patients and to take inputs from patients in order to achieve an effective communication and strengthen relationships between doctors and patients.

Methods: This was a prospective cross sectional observational study conducted over a period of one month, at HIMSR, New Delhi. Subjects were recruited from indoor patients. The medium of questionnaire was used to assess their perceptions of the relationship shared between them and their doctors. The questions were both multiple choice and /or open ended questions.

Results: Most of the patients were satisfied with the medical care and their relationship status with the doctors. Repeated emphasis on patient care and frequent introspection as is practiced at our Medical College is the key to improved communication dynamics.

The nurse-patient communication: patient perspective
Reshma Afreen, Ayesha Ahmad, Swaraj Batra

Background: Communication with patients is an essential but challenging part of nursing care. It includes showing concern and empathy, assurance of confidentiality and treating patients with respect. A warm and friendly attitude helps establish a rapport with patients and eases their anxiety. Non verbal methods of communication such as eye contact, facial expressions, gesture and touch are as essential as words. This study was planned to assess the impact of communication by the nursing staff on patient satisfaction. Aims of the study include- to assess the patients' perception of nursing care at our Medical College and make a note of existing deficiencies and to analyse the strengths and weaknesses of nurse patient communication in order to develop an improved model of provider care.

Methods: The study was prospective observational study conducted over a period of one month, at HIMSR, New Delhi. The subjects were recruited from indoor patients at HAHC hospital. They were required to fill a questionnaire and give their views on the nursing services provided to them.

Results: Most of the patients were satisfied with the quality of nursing care. This can be attributed to frequent workshops conducted at our hospital for training nurses and a good nurse –patient ratio.

Occurence of metabolic syndrome in rural subjects attending CHC Cardiology OPD
Aswalin Susan Sunil, Pradeep Gopinath Nayar, Chokalingam Meyappan, Bharani Vijayraghavan

Background: Metabolic syndrome is a multi-factorial condition involving dyslipidaemia raised BP,central obesity and hyperglycemia. Numerous data suggests that Metabolic Syndrome is common in the urban setup and is a risk factor for Cardiovascular diseases. This study aims at identifying the presence of Metabolic syndrome among rural patients using the diagnostic criteria of IDF ATP III and also contributes to other studies pursuing a similar objective.

Methods: Cross-sectional study of rural subjects attending Cardiology OPD, Chettinad Health City from February-March 2013 below the age of 75. The individuals are diagnosed according to IDF, ATP III definition. The results will be computed using Microsoft Excel.

Results: Study was conducted on 100 subjects, with the final subject pool having 82 male and 18 female. 9 % of the subjects were found to have Metabolic Syndrome,with 7% being male. Age had a positive influence on the occurrence of Metabolic Syndrome and was found to be more common in individuals above 45 years.

Conclusion: Identification of metabolic syndrome is still in its infancy in the semi rural Tamil nadu. If timely primary Interventions are executed in these areas, prevalence of Metabolic syndrome and the complications thereof can be brought down further.

Prevalence of syndrome Z in coronary artery disease patients
Meenakshi Kannappa, Pradeep Gopinath Nayar, Mathangi DC

Background: Coronary artery disease (CAD) is the leading cause of deaths in the world. Obstructive sleep apnoea (OSA) is a form of sleep disordered breathing with a high prevalence rate and is often under diagnosed. Syndrome Z is the clustering of metabolic syndrome and obstructive sleep apnoea. Syndrome Z is associated with a higher cardiovascular risk profile compared to those without it. Studies are needed to establish whether early identification and treatment of OSA patients and syndrome Z reduces CAD morbidity. The objective was to identify the prevalence of Syndrome Z in

Coronary Artery Disease patients.

Methods: Coronary Artery Disease Patients (n=100) attending the Cardiology department of Chettinad Health City were taken after obtaining their consent following explaining the study and its purpose. The study was questionnaire based using Sleep Health Questionnaire, a Modified Berlin Questionnaire and a Metabolic syndrome Questionnaire apart from the personal medical history of the patients.

Results: Of the 100 CAD patients the prevalence of high risk for OSA based on Berlin score was found to be 40%. The prevalence of Metabolic Syndrome was found to be 37%. The prevalence of Syndrome Z was found to be 24%. Prevalence for OSA, Metabolic syndrome and syndrome Z in general population from India as reported in earlier studies are 9.4%, 19.52% and 4.5% respectively. Age and Sex also played a role in prevalence estimation.

Conclusion: The prevalence rate of OSA and metabolic syndrome was found to be high among CAD patients compared to the general population. Hence risk for OSA should also be considered and treated in CAD patients, as this would probably also improves the outcome using the regular CAD treatment regime.

Profiles of rural patients admitted with congestive cardiac failure at CHC-ICU

Bharani Vijayaragavan, Pradeep Gopinath Nayar, Mathangi DC, Meenakshi Kannappan

Background: Congestive Cardiac Failure (CCF) is a major cause of morbidity all over the world. The incidence of CCF is on the rise in rural areas in the past few decades. Studies to determine the most probable risk factors for this overt rise are insufficient. In our research, we try to identify plausible risk factors for CCF in a rural scenario and compare it with established risk factors for an urban population. Aim of the study is to analyze the risk factors, clinical characteristics and co-morbidities of patients from rural areas admitted for CCF in a Tertiary Healthcare Centre.

Methods: Retrospective analysis of medical records of 100 rural patients admitted to Chettinad Health City ICU with CCF graded by New York Heart Association classification as II-IV and with ejection fraction <40%. The results were computed using Microsoft Excel.

Results: Age range of the study population was between 20-95 years. Most of the CCF patients fell between the age ranges of 50-60 years (mean age 58.48 years). It was far more common among male (62%) than female (38%). Of all the patients, 67% had other co-morbidities of which having Coronary artery disease (46%) was found to be the most significant risk factor followed by having Diabetes mellitus (43.3%), hypertension (40.21%), Rheumatic heart disease (11%) chronic renal disease (8%), cerebrovascular accidents (5%) and COPD (4%) Chronic smoking (26.67%) and alcoholism (26.67%) were other risk factors.

Conclusion: The risk factors identified in rural patients of CCF such as Diabetes, hypertension and CAD are usually associated with the urban strata. CCF also occurs at a younger population in the rural areas. This indicates a possible lifestyle modification in the rural setup, making them more susceptible to such diseases.

Awareness regarding risk of oral diseases among diabetics working in banks of Belgaum city

Ashma Kawalekar, Mohammed Irfan Baig, Mamata Hebbal

Background: The aim of the study is to assess the awareness about risk for oral diseases among diabetics working in banks of Belgaum city, their self-reported oral health and the source of information pertaining to the risk for oral diseases.

Methods: A cross-sectional study was performed among 250 subjects aged 35-60 years, with a known history of diabetes, employed in banks of Belgaum city. The purpose and procedure of filling the questionnaire was explained. A self-designed 47 item questionnaire was prepared which included open-ended and closed-ended questions. It comprised of 7 integrated layers-Sociodemographic data, Diabetic history information, Awareness about systemic complications, Oral complications of diabetes, Oral hygiene practices, Self-reported oral health and Source of information. The data procured was recorded into excel sheet and SPSS Version17 was used for statistical analysis. Percentage, mean and standard deviation was calculated. Association between variables was determined using Chi Square test. A p value of less than 0.05 was considered statistically significant.

Result: Only 44% of diabetic patients were aware of the increased risk of oral diseases. Among the various oral conditions listed, 58.8% reported altered taste; 58% reduced saliva; 55.6% dental caries; 52.2% bad breath as oral complications of diabetes. When asked about the self-reported oral health, most subjects gave negative responses for the questions asked. However, 31.2% and 26.4% believed they had dental caries and gum problems respectively. Regarding participants' sources of awareness, 52.4% learned from a dentist and 24% through television and internet.

Conclusion: Diabetic patients were found to have little awareness of the increased risk for oral diseases. In order to promote oral health and reduce the risk of oral diseases, health professionals in both dental and medical fields need to take responsibility for educating the public about the oral manifestations of diabetes and its complications for oral health.

Knowledge, attitude and behaviour in rural women for cervical cancer screening

Ria Jaggi, Madhuri Gawande

Introduction: Cervical cancer is a serious public health problem. It is second most common cancer in women worldwide and bear more than 80%(WHO ,2010)of the global burden of the disease. This reflects the lack of effective control measures in the countries .In India cervical cancer is the single largest killer of middle aged women and bears about one fifth of the world's burden of cervical cancer.The menace of cervical cancer is still haunting India inspite of this being a preventable disease. Screening test for detection of cervical cancer is effective. Successful treatment depends on early diagnosis of cervical cancer. Pap test has reduced the cervical cancer morbidity and mortality .The screening coverage in Asian countries is low upto 2.6-5 % in India. Risk of cancer of cervix is high in rural area compared to urban.It was found that 50% of women diagnosed with cervical cancer have never undergone a Pap test in India.The reason may be either because of lack of access and awareness of the benefits of the screening test.Cultural factors affect wives ability to make decision. Thus this study is taken to explore knowledge, awareness of women regarding the causative agent, risk factors, availability of screening test and frequency and analyze a probable relationship between the overall knowledge level and a few sociodemographic parameters.

Methodology: The Crossectional study is conducted in Lata Mangeshkar Hospital, Nagpur. womens between aged 18 to 64 years coming to the gynaecology and obstetrics OPD is included in the study. Unmarried girls below 18years and Women who are not sexually active will be excluded. Total 200 women will be facing interview using structured questionnaire. The answers will be recorded as 'yes' or 'no'.

Results: Out of 200,48.5% women belong to second decade of life,29.5 third ,12% fourth and fifth decade 10%. Based upon Education primary 19.5%, secondary school 45.5%, highersecondary14%, postgradution and graduation 15.5% , illiterate5%. 75% belong to low economic status, 25% middle economic status. 59% women's were working. 90% stated that they did not know what cervical cancer is. Though 35% thought sexual activity to be associated with cervical cancer, its risk factors like , having multiple sex partners, unhygienic, early onset of sexual intercourse, contraceptives smoking, multiple parity, nutrition were recognized by 15%,20%,10%,10%,5%,3% respectively. The term 'Pap test ' and HPV had been never heard by 98% women's. About age of screening 57.5% thought it should be done above 18years,32.5% any age ,10% below 18. Frequency of doing test at the time of suffering 70%,once in three years25% ,once in one year 5%. Thus overall knowledge and awareness about screening of cervical cancer amongst women is low. Therefore there is need to design suitable information ,education and communication (IEC) strategies to inform and educate the women on prevention of cervical cancer and thus augment the national cancer control program.

Respiratory morbidity among rice mill workers in Davangere, Karnataka
Manjunath Patil, Ratnaprabha

Background: Industrial dust inhalation over a long period leads to proliferative and fibrotic changes in the lungs. Rice being a staple food for Indians, many people are employed in rice mills. This population is at risk of exposure to grain dust which has a long history of association with diseases and adverse effects on various organs such as eyes, nose, skin, lung and the airways. Therefore it is necessary to evaluate the health hazards in this group of workers, especially pulmonary dysfunctions, which can be identified early using pulmonary function test.

Methodology: A cross sectional study was conducted during Feb-Mar 2013, in five rice mills of Davangere city, Karnataka which includes workers aged >18 yrs. A structured interview schedule was administered along with anthropometric measurements and respiratory functions using Helio's Spirometry.

Results: A total of 134 workers participated in the study, of which 108 were males and 26 females. Mean age of the participants was 35.89±11.55 yrs. The average values of lung function tests were, FVC 2.77±1.0 lit, FEV1 1.89±0.78 lit, FEV1:FVC ratio 72.41±27.12%, PEFR 3.15±1.41 lit. There has been significant difference in FVC(p<0.001), FEV1(p=0.01) and FEV1:FVC(p=0.002) between males and females. FVC(p<0.001), FEV1(p<0.001) were found to be reducing with age. FVC was found to be significantly reducing with duration of work in the rice mills (p<0.001). At the time of the interview, 64(47.76%) people complained of some respiratory morbidity (cough, breathlessness, chest tightness). A total of 96(71.64%) people had abnormal spirometry reading, of which 49 suffered from obstructive disorders and 47 with restrictive disorders. However there was no significant association of FVC, FEV1, FEV1:FVC and PEFR with presence of any respiratory morbidity, smoking, usage of masks and BMI.

Conclusion: A higher number of people complained of some

respiratory morbidity and 71.64% of the people had abnormal lung function tests. FVC & FEV1 were found to be significantly low among females, older workers and increasing duration of work.

Prevalence of musculoskeletal and neurological disorders among motorcyclists and four wheeler drivers
Vinithra Varadarajan, Balaji Arumugam

Introduction: Motorbike and car sales have a growth of 6.2% and 5.9% since 2011 globally (1). In India, there is a growth rate of 10.57% in motorbike sales during the year 2012 (2). As there is increase in usage of vehicles, there is growing pattern of musculoskeletal and neurological disorders. Hence this study was conducted with the main objective of estimating the prevalence and risk factors of musculoskeletal and neurological disorders between occupational and non occupational drivers.

Methods: This study was conducted as cross sectional survey among 18 years and above motorcyclist and four vehicle users, both occupational and non occupational in Chennai during March 2013, using self administered questionnaire after getting informed consent. Inclusion criteria: those who give consent and those who ride motorcycles/ drive four wheelers. Exclusion criteria: those who do not drive, those who do not give consent
and those who already have musculoskeletal and neurological disorders due to other reasons like(polio,rheumatoid arthritis,etc). The questionnaire included baseline demographic data, years of driving, type of vehicle, symptoms perceived since last 12 months . The data were analyzed using Epi-info software.

Results: A total of 300 study participants were interviewed out of which 282 (94%) were males with the mean age of 41.7 years. 162 (54%) were drivers and the remaining 138 (46%) were non occupational vehicle users. The symptoms experienced by the study participants were Pain in neck 124 (41.3%), shoulder 106 (35.3%), elbow 35 (11.7%), hip 48 (16%), upper back 52 (17.3%), lower back 120 (40%), thigh 49 (16.3%), knee 86 (28.7%), feet 68 (22.7%). Tinel's sign and Phalen's test were positive in 95 (31.7%) and 94 (31.3%). The overall prevalence of musculoskeletal disorders and neurological disorders were 217 (72.33%) and 128 (42.67%) and prevalence of musculoskeletal disorder were 127(78.4%) and neurological disorders were 68(42%) among occupational drivers.

Conclusion: There is higher prevalence of musculoskeletal and neurological disorders among the motorcyclists and four wheel drivers. The prevalence of musculoskeletal disorders is higher in occupational drivers. The prevalence of neurological disorders is higher among motorcyclists.

Risk factors for prehypertension and hypertension in an urban area of Pondicherry
Priya Amulutha

Introduction: Hypertension and Prehypertension has been associated with high cardiovascular risk. Risk factors for hypertension include increasing age, high BMI, abdominal obesity, tobacco usage, increased alcohol consumption, sedentary lifestyle and stress etc. Early detection and control of these risk factors is the mainstay of NCD prevention. The objectives were to estimate the prevalence of risk factors, study the knowledge attitude and practice regarding Prehypertension and hypertension and to correlate the risk factors with Prehypertension and hypertension.

Methods: Community based cross sectional study was done at 2 urban wards of Pondicherry during ROME (Re- Orientation of Medical Education) posting during the month of February 2013. A pretested semi- structured questionnaire was used as a study tool. The statistical analysis was done using SPSS 17 version. The protocol was approved by the IEC.

Results: Among 569 study participants majority of the subjects were in the age group 30-39 years (25.5%). 52% were females, 40% were employed. Prevalence of Prehypertension and hypertension was 49.7% and 19.6% respectively. Prevalence of overweight was 36% and obesity was 21.3%.Waist circumference was substantially increased among females 54.9%.Prevalence of smoking was 13.4% and alcohol usage was 14.2%. 42.9% of the participants had sedentary type of work. Regarding KAP, 68 % were aware of the condition-hypertension and long distance to travel to health facility was the main obstacle. Stress was perceived as the most important cause of high BP. Significant association was found between gender and alcohol intake, gender and tobacco usage, gender and sedentary life style and high salt intake.

Conclusion: Present study depicts an increased risk for Prehypertension and hypertension in the urban population due to the lifestyle factors. Appropriate IEC activities regarding lifestyle modification are the need of the hour to promote preventive services for this NCD.

Study of prevalence of malaria at victoria hospital with hematological profile

Inamadar Soumya, Natarajan M

Introduction: Prevalence of malaria and different plasmodium species shows regional variations. The malaria parasite brings about various changes in the blood profile of an individual during its life cycle in humans. This study was conducted to establish the prevalence of malaria at Victoria hospital from December 2011 to September 2012, to find the predominant plasmodium species causing malaria and the significant changes seen in the blood profile.

Methods: This study was conducted on 200 patients who came to OPD/ were admitted in the medicine wards of Victoria hospital, attached to B.M.C.R.I., with complaints of fever, easy fatigability, nausea, vomiting, headache, etc. from December 2011 to September 2012. Patients irrespective of age and sex, clinically diagnosed with malaria were selected excluding Immune compromised patients, patients with bone marrow insufficiency or dysfunction, patients with other underlying chronic diseases like tuberculosis, diabetes, etc. Their blood samples were collected upon informed consent, after getting clearance from Institutional Ethics Committee and subjected to routine haematological tests like complete blood count (CBC) and peripheral smear examination. Blood profile and malaria positivity were analysed.

Results: The study showed prevalence of malaria at Victoria hospital from December 2011 to September 2012, to be 26%. P. vivax was the predominant species causing malaria in those cases. Significant thrombocytopenia (81%), anaemia (90%) and its more severe forms in P. falciparum and leucopenia (38%) were noted. Also, significant presence of relative neutrophilia(17%), relative lymphocytosis (13%) and microcytic hypochromic RBCs (41%) were seen.

Conclusion: Prognosis of malaria depends on how early it is diagnosed and treated, failure of which may lead to complications of malaria. One of the parameter for disease diagnosis and control is haematological profile. The changes that occur in blood profile in malaria are variable and the exact pathogenesis is not established. The results of this study can help as important tools in the clinical management of malaria and prevention of its complications.

Study of urinary iodine levels in patients with thyroid lesions.

Boora Chakravarthy, Batyala Madhuri

Introduction: Consequences of thyroid disorders can be prevented by early detection, prevention and therapy. With iodised salt, more than adequate or excessive iodine intake lead to an increased incidence of autoimmune thyroiditis. Iodide excess/deficiency is the prime factor responsible for the pathogenesis of thyroid lesions. The objective of the study is to explore the associations between iodine intake levels and different thyroid lesions. The iodine intake is assessed by iodine excretion in spot urine assessment and expressed relative to creatinine excretion or concentration of urinary iodine. The present study is aimed to assess whether these tests can be applied individually as a predictor for different thyroid lesions.

Methods: A prospective study of FNAC/ histopathology of thyroid, urine iodine levels and thyroid hormonal status in patients attending our teaching hospital with thyroid pathology during a period of 2 months along with equal number of controls without thyroid pathology. The diagnosis done by FNAC / histopathology is correlated with thyroid hormonal status and urine iodine levels. Urine iodine levels are estimated by Ammonium persulfate method. The thyroid hormone levels and antibody status are done by chemiluminisence method. Informed consent is obtained and confidentiality of the patients' identity is maintained. In view of the TSH levels having a diurnal variation the fasting and post prandial urinary iodine levels is done. The data is statistically analyzed.

Results: The patients with autoimmune thyroiditis have high uinary iodine excretion and most of these patients are in the age group of 25-35yrs most of them presenting with hypothyroid features.

Conclusion: By preventing the indiscriminate use of high iodine diet, certain /some of the thyroid lesions such as autoimmune thyroiditis can be prevented and by individualizing the use of iodised salt for established hypothyroid conditions, the progression of the disease can be controlled.

Prevalence of acute kidney injury (AKI) – a clinico-etiological correlation

Mohamed Azeem S, Manikandan TJS, Rajiv G, Kannan R, Lokesh R, Ramasamy S

Introduction: Acute kidney injury (AKI) is defined as an Increase in Serum Creatinine (SCr) by 50% within 7 days or Increase in SCr by 0.3 mg/dl within 2 days, Or Oliguria. AKI complicates 5% of hospital admissions and 30% of admissions to ICU. AKI in tropical countries occur in the younger age group and usually follows infections. Our study is being conducted to analyze the aetiology, clinical presentation, severity of illness with its outcome.

Methods: In this study, we included AKI patients who were admitted in SMCH from January 2012 to December 2012. Patient records were obtained from MRD department using ICD 9 codes for study purposes.

Results: In our retrospective study, we randomly screened 200 case sheets of kidney diseases, in which 30 patients had AKI.The mean age was 64 years; with a male predominance (67%). The leading

cause of AKI was Acute gastroenteritis (57%). Others were Dengue – 10%, Rickettsial infection – 6.6%, and hypertension – 6%, leptospirosis and diabetes 3% each, unknown cause – 10%. The common clinical feature was Vomiting and diarrhea (56%), followed by Oliguria – 23%, flank pain – 23%, fever – 20%, Myalgia – 17%, dyspnea – 10% and altered sensorium – 7%. The time between the onset of symptoms and admission to the hospital for AKI ranged from 4 to 10 days. 33% required ICU management, most common due to electrolyte and acid base disturbances (40%); followed by infections – 20%, uremic encephalopathy – 20%, accelerated hypertension and CCF – 20%. 83% improved, with conseravative treatment , 10% required renal replacement therapy and 7% of patients died .

Conclusion: Acute gastroenteritis was the common cause of AKI followed by infections. Early and Prompt diagnosis, timely intervention and supportive therapy are associated with improved survival and recovery of kidney functions with AKI.

Prevalence of carotid artery disease in stroke

Vivian Kapil V, Mahendran K, Senthil Kumar A, Parathan KK, Vignesh R, Lokesh R

Introduction: Carotid artery atherosclerosis is a major cause of neurological morbidity and mortality. Most patients are diagnosed by non-invasive tests such as duplex ultrasonography and CT cerebral angiography. Carotid Artery stenosis ≥70% increases the incidence of future stroke, whereas the risk is limited when the stenosis is ≤60%. Thus, carotid Artery stenosis is a well-defined risk factor for stroke. . Currently Medical, surgical, and endovascular therapies aim to reduce the risk of stroke by relieving stenosis and preventing thromboembolism. Our aim is to study the Prevalence of Carotid Artery Disease in Stroke.

Methods: In this study, we included stroke patients who were admitted in SMCH from September 2012 to December 2012.Patient records were obtained from MRD department using ICD 9 codes for the study.

Results: Out of the 50 stroke patients who were admitted, 30 patients underwent Carotid Doppler and 20 patients underwent cerebral angiogram. The mean age of patients with CVD was 60.38 years with a male predominance (56%).Of the 30 patients who underwent carotid Doppler, 50% patients had stenosis, of them nearly 40% of the patients had significant stenosis (>70% stenosis). Of the 20 patients who underwent cerebral angiogram, 40% had stenosis in which 20% patients had significant stenosis and 20% had minimal to moderate stenosis. 20% of patients had hypoplastic vertebral artery in our study.

Conclusion: Carotid Artery Disease is highly prevalent among patients presenting with stroke. Carotid Artery Disease is an independent and significant risk factor in the development of stroke. Though it can be detected using carotid Doppler but other anomalies of cerebral circulation and other cerebral artery disease are also significantly contributing to development of stroke which can be detected only by the use of cerebral angiogram.

Culture isolates in a tertiary hospital of sub - urban Chennai: trends in aminoglycoside resistance

Nikhilan V, Manikandan TJS, Kannan R, Binesh Lal Y, Jayakumar S, Shameembanu AS

Introduction: The pattern of infections and antibiotic resistance

which are seen in India is quite different from other countries; also we have limited data on it. Gram negative infections are the commonest cause of infections at all sites. Aminoglycosides which are used for treating gram negative infections, have less incidence of microbial resistance compared to beta lactam antibiotics. The aim of our study is to analyze the culture isolates with special reference to gram negative infections and to observe the trends of aminoglycosides resistance.

Methods: All culture specimens except blood which were submitted to the Department of microbiology, Saveetha Medical College, Chennai over a period of one year (January 2012 to December 2012) were evaluated. Isolation, identification, and determination of antimicrobial susceptibility which were performed by standard microbiological techniques were included in the study; culture positivity was studied in detail.

Results: Escherichia coli were the most common (60%) gram negative bacilli isolated followed by Pseudomonas aeruginosa, Klebsiella species, Proteus mirabilis, Citrobacter diverses and Enterobacter respectively. Majority of the specimens were urine (62%). 20% of the isolates were resistant bugs; among them 28% had Extended Spectrum Beta Lactamase (ESBL) isolates. The resistance to Amikacin (12%) is less compared to netilmicin (20%) and gentamicin.

Conclusion: Escherichia coli have emerged as the dominant pathogen causing urinary tract infections in the study period. The incidence of ESBL is increasing among the resistant isolates. Amikacin should be used as a reserve drug for treating gram negative infections because the incidence of resistance is less compared to others.

Prevalence of peripheral vascular disease in a tertiary care hospital

Vignesh R, Naufal Rizwan TA, Upasana R, Vivian Kapil V, Rajiv G, Chitrambalam P

Introduction: Peripheral vascular disease (PVD) is highly prevalent in the elderly and subjects with atherosclerotic risk factors such as smoking, diabetes mellitus, hypertension, and hyperlipidemia. Importantly, it is rarely an isolated condition, but rather a manifestation of systemic atherosclerosis. Hence, there is often coexisting disease in the coronary and cerebral arteries and, consequently, an increased risk of myocardial infarction and stroke. Symptoms include intermittent claudication, characterized by leg pain and weakness brought on by walking, with disappearance of the symptoms following rest. Patients with claudication have a significantly reduced quality of life due to their restricted mobility. Our aim is to study the clinical profile and complications in adults with peripheral vascular disease.

Methods: In this study, we included patients with PVD who were admitted in SMCH from July 2012 to December 2012. Patient records were obtained from MRD department using ICD 9 codes for study purposes.

Results: Out of 25 patients diagnosed to have PVD by Arterial Doppler, 88% had diabetes, 24% had dyslipidemia, and 16% had hypertension, 8% with Coronary Artery Disease and stroke each. The mean age was 65.6 years; with a male predominance (64%).60% of our diabetic patients with PVD had poor glycemic control with their mean duration of diabetes ranging from 4 to 12 years. 40% of our patients were regular smokers. 44% of patients had reduced or no pulse in at least one of the posterior tibial arteries or dorsal arteries of foot in the lower extremities. All our patients improved; 88% by conservative management and 12% required surgical management in

the form of amputation.

Conclusion: PVD was most commonly associated with Diabetes. The severity of PVD increases when multiple atherosclerotic risk factors are been present. Early detection and prompt intervention is the only way to improvise the lifestyle of patients with PVD.

Evaluation of role of Accredited Social Health Activist (ASHA) workers in implementation of Janani Suraksha Yojana in Tadikonda Mandal, Guntur District, Andhra Pradesh.

V Pavan Datta Syam Kumar, Ch Koteshwaramma, B Arun, A Sita Rama

Background : Janani Suraksha Yojana(JSY) was evolved to reduce the maternal and neonatal mortality in India which is being implemented in Andhra Pradesh state also through ASHA workers by promoting 100% institutional deliveries to poor pregnant women. Study was undertaken to evaluate the knowledge, attitude and practices of ASHA workers in delivering the JSY services.

Methods: A cross sectional community based observational study conducted in the field practice area i.e Tadikonada Mandal of Community Medicine Department, Guntur Medical College, Guntur, Andhra Pradesh. Study Sample : 50% of Tadikonda Mandal ASHA workers. Study Setting : Tadikonada Mandal. Study Period : 3 months (December 2012 to February 2013). Study Materials : Pre designed pilot tested semi structured questionnaire, Microsoft Excel. Statistical Analysis: Rates, Proportions and Chi- square test.

Results: Study revealed that there was 90 % of institutional deliveries, Infant Mortality Rate (IMR) was reduced to 20 per 1000 live births and Maternal Mortality Rate(MMR) was also reduced to 190 per 1,00,000 live births.

Conclusions: Based on the results found in our study we came to a conclusion that in implementing the JSY services the ASHA workers are found as a back bone to reduce the IMR, MMR by promoting institutional deliveries.