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Editorial:

Medicon is the annual research conference of The Forum for Medical Students's Research, India. The tripartite focus of the congress is to provide a platform for undergraduate medical students to present their research projects; to promote peer interaction and networking and to provide introductory training modules to the participants. It is held on an annual rotatory basis, such that each year a different medical college in India acts as the host, thereby giving medical students from across the country a chance to attend it at least once. While the college provides the required infrastructural support and faculty guidance, the students man the various organisational roles of the conference such as, scientific programme, finance, logistics, abstract selection, review and allocation, technical support, public relations etc. This year the conference was hosted by Grant Medical College, Mumbai, one of the oldest medical colleges in India. The following is a short report of the conference and the abstracts of all the papers' presented at the conference.

Acknowledgements

This report and conference proceedings were prepared by Dr. Manu E Mathew, and Dr. Abhimanyu Singh. We wish to thank the scientific committee, Medicon 2011 for providing us with the abstract and participant data. We acknowledge INFORMER and Grant Medical College, Mumbai for organising and hosting Medicon 2011. We also wish to thank the Australasian Medical Journal for publishing the conference proceedings and bearing with us through the long process by which the abstract book was compiled. Last, but not the least, thank you to all the participants and volunteers for making Medicon 2011 a grand success.

Conference Report: Medicon 2011, Mumbai

Set in the cosmopolitan backdrop of Mumbai, Medicon 2011 was hosted by Grant Medical College & Sir J.J. Group of Hospitals from 12–14 May 2011. Themed “Medicine GenNext”, the conference sought to transport participants to the not-so-distant future with its myriad exciting possibilities and unfathomable potential. The theme was justified by a range of plenary sessions and interactive one-day workshops that dealt with advances in medicine and the changing scope of healthcare and medical research.

A host of enthusiastic undergraduates, frazzled mentors and, with a prevailing aura of consternation, the occasional parent; all descended at the venue starting from May 10. People from distant locales like Iran, Leeds and Russia added to the global flavour to the concoction of undergraduate medical students from all over India. This year there were over 140 oral presentations and 200 poster presentations. About 650 participants attended the conference from all over India and abroad.

The pre-conference workshop sessions on the May 11 commenced with an inaugural speech by Professor Dr Noshir H. Wadia, a renowned neurologist and eminent researcher. He punctuated with personal anecdotes and nuggets of wisdom, his talk on ‘The Noble Art of Healing’ infused the audience with a tangible undercurrent of anticipation. Mr Chendil Kumar’s talk aptly titled ‘Communicate to Connect’ helped him develop a friendly rapport with the audience in a short time and was a testament to his expertise. The pre-conference workshops addressed the following areas of medical research; scientific writing, evidence based medicine & literature search, and biostatistics SPSS.

The proceedings of the first day of the conference took the delegates on a multi-dimensional ride from the past into the future. While Dr F. Udawadia, renowned physician, eloquently brought alive the ‘History of Medicine’, Dr Rajeev Sarin, Oncologist, unveiled the ‘Face of Medicine in Near Future’. The conference was then inaugurated by the chief guest, Dr V.M. Katoch (Director General, Indian Council of Medical Research). He emphasized the importance of research and shared his experiences in this regard, subtly touching upon the various opportunities available to a medical researcher in India. The Guest of Honour, Shri M. Mahiskar, Minister of State for Medical Education, also congratulated the delegates and encouraged them to conquer greater heights.

In today’s competitive world, ethics is often seen to take a backseat for the pursuit of a positive end result. A key focus area of the conference was to highlight the role of medical ethics and the ethical aspects of research. After the interactive session, students participated in the symposium titled- “From Hippocrates to Hypocrisy: The Continuing Saga of Ethics in Medicine” and shared their views on the subject.

Eminent physicians such as Dr. Snehalata Deshmukh, Dr.Gautam Sen, Dr M.G. Deo and Dr Vinay Kumar then enthralled the audience with a wide array of talks. The plenary sessions of the last day focused on a kaleidoscope topics like cancer biomarkers, changing paradigms in cancer research and treatment, space medicine and research, development of the ancient medicines, rise of anti-microbial resistance and medical negligence.

The highlights of the event were the presentations by the student delegates. The judges were highly appreciative of the quality of papers and also provided insightful suggestions for future improvement. Medicon 2011 also included a special category of “group presentations” to provide an opportunity to maximum number of students involved in a group research project to share their ideas via a platform presentation. Apart from paper presentations and plenary sessions the conference also presented the students with various other competitions such as clinico-pathological case competitions and an engaging medical quiz.

Apart from paper presentations and plenary sessions the conference also presented the students with various other competitions. The delegates very brilliantly discussed the clinico-pathological cases allotted to them. The finalists were selected by two screening cases that were emailed to them. Also the quiz competition served the delegates to test their grasp over clinical medicine.

While the scientific proceedings catered to the tastes of the diverse audience, the social evening unfurled a new aspect of the conference as the organisers re-created the vibrant magic of the famous “Chowpatty” promenade within the grounds of the institute’s gymkhana. With a tantalising array of street food and local cuisine and a lively entertainment programme by the students, the occasion gave the budding researchers a chance to enjoy the *joie de vivre* the city is famous for.

The plenary sessions of the last day were focused on future medicine covering topics like cancer biomarkers by Dr Amit Dutt. Dr Praful Desai shared his ideas about changing paradigm in cancer research and treatment. Gr Capt. A. Agarwal satisfied the queries of the students who wish to go for space medicine and research. Dr M.M. Jain also discussed the development of the ancient medicines and Dr Aruna Pujari discussed the rapidly developing anti-microbial resistance due to indiscriminate use of antibiotics and the importance of research in this regard. And finally Dr G. Shenoy delivered a very interesting talk on medical negligence which definitely helped the students in deciding what is and what is not medical negligence. With Medicon-2011, the third chapter of Medicon was successfully concluded.

Assessment of Autonomic Nervous Activity in Autistic Children

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Introduction

Autism, along with neuro developmental symptoms presents with symptoms like constipation or diarrhea, urinary retention, cold and clammy extremities, and sleep disturbances, which suggest an underlying autonomic dysfunction. Aims: To assess autonomic nervous activity of autistic children by measuring Heart Rate Variability (HRV) and Electro Dermal Activity (EDA).

Materials and Methods

In this cross sectional study, 15 autistics and 16 normal children were recruited. HRV was assessed by recording resting analog ECG signal and EDA was assessed by recording tonic skin conductance level using Power Lab, AD Instruments.

Results

Analysis using Mann-Whitney test of HRV data showed autistic children had significantly higher total ($P=0.015$) and Low Frequency (LF) power spectrum ($P=0.04$) compared to that of normal children indicating that autistics are associated with greater cardiac sympathetic activity. However, the absolute power of High Frequency (HF) of spectral power, and relative powers of HF, LF and ratio of LF/HF did not differ between the groups. Analysis of EDA data showed that the minimum was significantly lower ($P=0.02$) and maximum was significantly higher ($P=0.01$) in autistic children than that of the controls, though the mean electro dermal activity EDA did not differ between the groups. The results of analysis of EDA indicate that autistics are associated with wide range of fluctuation of sudomotor sympathetic activity.

Conclusions

The present study concludes that autistic children are associated with altered cardiac and sudomotor sympathetic nervous activity and also suggests that autonomic nervous activity in autistic children may be better documented by assessing phasic activity for various sensory stimuli.

Key Words: Autonomic activity, autism, HRV, EDA

A Study To Assess The Awareness And Adherence Of Universal Precautions Among Medical Students At Rims, Kadapa

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Introduction

Universal precautions as defined by US centre for disease control [CDC] are a set of precautions designed to prevent transmission of HIV, Hepatitis B and C viruses and other blood borne pathogens when providing health care to

patients. Although Universal precautions guidelines have been in place since 1987, suboptimal adherence has been documented extensively. They are regarded as fundamental in the prevention and control of infections and effective in protecting practitioners and patients. Therefore, it is important to evaluate the knowledge, practice and adherence of Universal precautions among medical students as they are constantly associated with patients. Aims: 1. To estimate the level of knowledge and practice of universal precautions among students. 2. To estimate the level of adherence to universal precautions among medical students.

Materials and Methods

The study is a cross sectional descriptive study involving 400 medical students from all the batches at RIMS, Kadapa. Informed consent was taken from all the participants after being explained the purpose of the study. Data was collected by means of a pretested self administered questionnaire. The data was initially processed manually and sorted out in terms of frequencies of the variables used and tabulated using frequency distribution and percentages. Later, the student's t-test and one-way analysis of variance will be used for testing the significance of comparisons.

Results

71% of students are aware of universal precautions. 41% of them know the correct method of hand washing. 21% are not vaccinated against hepatitis-B. The study showed that the mean knowledge score was 7.6 [SD=1.92] and adherence score was 15.98 [SD=4.34]. The knowledge score was significantly higher among those in final year ($p=0.005$). No significant difference of the score was seen between gender. The adherence score was significantly more among final year students [$p=0.032$].

Conclusions

Though the knowledge was high, practice of universal precautions among the students were low indicating knowledge need not result in practice of same. There should be significant changes in the attitude of the medical students towards practicing the universal precautions and they should get adequate support from the authorities.

Key Words: Universal precautions, medical students, adherence

Association of Anthropometric Indices with Luteinising Hormone, Follicular Stimulating Hormone, Prolactin and Thyroid Stimulating Hormone Levels in Women with Primary and Secondary Infertility

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Introduction

Infertility is a complex disorder with significant medical, psychosocial and economic aspects recognised as a public health issue worldwide by the World Health Organization (WHO). Hormones play an important role in the development of reproductive function and in the normal regulation of the menstrual cycle. However, the exact association of BMI and WHR and their co-relation to hormonal imbalances has not

been clearly worked out. Aims: We aimed to compare anthropometric indices (Body Mass Index, waist circumference and Waist Hip Ratio) and hormonal profile (LH, FSH, Prolactin and TSH levels) between women with primary and secondary infertility.

Materials and Methods

Cross sectional analytic study, enrolled 80 women, after informed consent. Anthropometric measurements were taken in all women (weight, height, waist circumference and hip circumference) and used for calculation of Body mass Index (BMI) and Waist Hip Ratio (WHR). Fasting blood sample collected on second day of menstrual cycle was analysed for LH, FSH, prolactin and TSH on Chemiluminiscent analyser. Statistical evaluation was carried out on SPSS 17.0

Results

Serum LH/FSH ratio was significantly higher in primary infertility as compared to secondary infertility ($p=0.04$). In primary infertility serum FSH levels showed a highly significant positive correlation with all anthropometric measures of obesity (weight, waist and hip circumference, body mass index, waist hip ratio) ($p<0.01$). In secondary infertility, FSH showed significant correlation only with waist circumference, whereas serum TSH and prolactin levels showed a significant positive correlation with body weight and BMI ($p>0.05$). No differences in BMI between the two groups was

Conclusions

There is a positive association of obesity with hormonal derangements in infertility. Management of obese patients with infertility should start with weight loss to alter the hormonal milieu and improve chance of conception.

Key Words: Infertility, anthropometry, hormones

Assessment of the Factors Associated with Addictions and Runaway Behaviour in Street Children of Mumbai Central Area

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Introduction

As per UNHCHR, by 2020, there will be 800 million street children globally. They have poor hygiene, poor diet, various addictions; emotional and social deprivation. Homelessness leads them to criminal behavior, addiction, prostitution, begging, violence, drug abuse, etc. Stringent measures must be taken to prevent street children turning into street adults. Aims: 1) To study the socio-demographic factors contributing to runaway behaviour. 2) To assess prevalence of addictions in street children. 3) To correlate causes of runaway and addictions amongst street children.

Materials and Methods

Study type: - Cross sectional study. Study period: - Aug, 08 to Nov., 08 Sample size: - 45, Universal sampling technique used Pre-designed semi-structured questionnaire was used with personal interview technique Data analysis: - Frequency tables, chi-square test.

Results

55.6% children were between 10-12 years. 80% were males. 46.7% children were educated below 1st standard, 20% were totally illiterate. 75.6% children earn >Rs. 1500/- month. 71.1% children spend money on addictions. Among them, 37.78% were addicted to drinking whitener solution, followed by alcoholism (35.56%), tobacco smoking (51.8%), tobacco chewing (31.1%), family break up (51.8%), physical abuse by parents (31.1%), overcrowding (17.8%), employment (17.8%) etc.

Conclusions

Need for proper school education, behavioral changes and communication for the prevention of addictions in children and alleviating poverty in families.

Key Words: Street children, addictions

Assessment of Nutritional Status of Under Five Children from Urban and Rural Areas.

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Introduction

Nutritional status, especially among under five children, plays key role in growth and development, and lays good foundation for healthy adulthood in future, thus contributing to overall socio-economic development of the country. Promotion of nutritional health has been the key element in primary health care and hence it is important to periodically monitor the same. Aims: • Assessment of nutritional status of under five children, using anthropometric measurements, clinical examination and dietary survey, from urban and rural areas. • Identify factors influencing the sa. • Suggest appropriate interventions

Materials and Methods

Present descriptive epidemiological study adopting exploratory survey design, conducted during August – September 2010, includes randomly selected representative sample, each of 80 under five children, from urban areas (slum area from H\E ward, MCGM) and rural areas, (two tribal villages-Yermal and Burnchiwadi, Panvel block, District Raigarh). They were subjected for anthropometric measurements, clinical examination and diet survey. Data collected on pre formed interview schedule was analysed using SPSS software.

Results

The prevalence of Grade II and Grade III malnutrition as assessed by weight for age indicator is significantly more in rural areas (40% and 25% respectively) as compared to urban areas (23.75% and 10% respectively). Rachitic signs are seen predominantly in age group of 1 – 2 years from both areas (38%). On clinical examination, dental (58.8%-Urban; 28.8%-Rural) and ophthalmic problems (18.8%-Urban, 45%-Rural) were detected. The important factors responsible for higher prevalence of malnutrition in rural areas were illiterate parents (Mothers - 82.5%, Fathers – 65%), low calorie intake (among 86.3% children), low protein intake (among 83.25% children), and poor personal hygiene practices (among 63.25% children). However, influences of per capita income, sanitary conditions, and immunisation status were not significantly different in both areas. Findings are comparable with other national and

international studies.

Conclusions

Higher prevalence of malnutrition in rural and urban, under five children still prevails and deserves special attention. Improving calorie and protein intake by appropriate dietary changes, without incurring additional resources would prove beneficial. Similar studies may be undertaken to assess the impact of corrective measures.

Key Words: Under five children, nutritional status, rural area, urban area.

Assessment of Nutritional and Health Status in Senior Citizens of a Rural Indian Community

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Introduction

As per 2001 census, there are 77 million (7.4%) elderly people in India and majority of them live in rural area. Though there is definitive evidence that malnutrition is more common in geriatric population, it is underestimated. Also the national health policies focusing on maternal and child health and communicable diseases, health status of elderly has not been given due consideration. **Aims:** To estimate point prevalence of malnutrition and morbidity among rural elderly.

Materials and Methods

This community based study was carried out in village Loni (western Maharashtra, India). 260 elderly aged ≥ 65 years were selected by systemic random technique. Nutritional status was assessed by Mini-Nutritional Assessment scale, designed by Nestle Nutritional Institute. Health status was assessed by Geriatric Health Questionnaire designed by University of Iowa, Iowa along with detailed medical history and relevant medical examination. Anthropometric measurements were recorded.

Results

Of the studied population 36 (14%) were malnourished and 111 (42%) was at risk of malnutrition. Declining nutritional status was significantly associated with advancing age ($p < 0.001$), lowering socio-economic status ($p < 0.001$), neuropsychological problems ($p < 0.001$) and lowering functional status ($p < 0.001$). All the anthropometric measurements were found to be reliable associates of different grades of nutritional status ($p < 0.005$) except Waist/Hip ($p > 0.05$). 230 (88%) of population was suffering from at least one medical illness. On an average 2.49 morbid conditions were seen per person. Pallor (64%), reduced visual acuity (63%), and joint problems (35%) were top three morbidities observed. Toothache, tuberculosis and reduced visual acuity were significantly associated with malnutrition ($p < 0.001$, $p < 0.005$ and $p < 0.05$ respectively). Joint complaints and diabetes were significantly associated with higher Body Mass Index values ($> 23 \text{ kg/m}^2$) ($p < 0.005$ and $p < 0.001$).

Conclusions

Vulnerability for nutritional problems increases with advancing age, lowering socio-economic status and lowering functional status. Burden of associated diseases records reciprocal increase with nutritional status. Well directed nutrition and

health program for elderly is the need of the hour. Fully fledged implementation of 'Age Friendly Hospital-Initiative' will be an appropriate first step to address this issue.

Key Words: Mini-nutritional assessment, malnutrition, age friendly hospital-initiative, geriatric, morbidity

Assessment of Knowledge and Awareness about Health Insurance in Rural Area of Western Maharashtra

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Introduction

Health insurance is a mechanism for pooling funds from a large group of participants to meet the needs of some members in the group. It is useful for reducing the large financial risks accompanying high cost events like serious surgeries. Most Indians must pay the vast majority of their health care costs out-of-pocket. 24 percent of all Indians hospitalised fall below the poverty line because they are hospitalised, and that out-of-pocket spending might have raised by 2 per cent the proportion of population in poverty. **Aims:** Given the increased health costs health insurance is gaining importance. This study aims to: 1) assess its knowledge and awareness amongst population from rural area; 2) impact of socio-demographic factor on knowledge and assessment; 3) proportion of target population health insured; 4) to study penetration of government scheme like Rashtriya Swasthya Bima Yojana (RSBY).

Materials and Methods

A cross sectional community based study was carried out in Loni village. 100 heads of families were selected by systemic random sampling and data was collected by interview using pre-designed questionnaire.

Results

16% had heard about health insurance. Only 3 % had its policies. Significant associations were obtained between age ($P < 0.05$), educational status ($P < 0.05$) and occupational status ($P < 0.01$) with health insurance. 50% of class 1 respondents, 66.6 % between age group 30-39 yrs had health insurance and all were graduates and above. 57 % experienced shortage of money for health problems. 83 % of health insured had desire to buy schemes. 33% agreed to compromise their income for it. Only 1 knew about

Conclusions

Knowledge and awareness practices about health insurance were poor, however, there is great potential for its rise. Schemes need to penetrate rural and peripheral areas to decrease financial strain on vulnerable and impoverished population.

Key Words: Health insurance, knowledge, awareness, scheme

Assessment of Handedness & Visio-spatial Ability among a Subset of College Students.

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Introduction

The left handed persons are very low in number when compared to the right handed population. However there seems to be some genetic involvement for being a left handed person. The mental ability and thought seems to be different in a left handed person when compared to the right handed person. Mental rotation ability or visio-spatial ability is believed to be located in the right hemisphere of the brain. Mental Rotation Tests are often used as an aptitude test to estimate the capacity of three-dimensional thinking and spatial ability. The current study aims to assess the relationship between handedness and mental rotation, whether there is any gender difference in visio-spatial ability. Aims: To assess the difference of mental rotation in left handed persons from those of right handed persons and to assess any gender differences in the visio-spatial ability.

Materials and Methods

Sample size: 42 students. General Proforma: includes the identification number, sex, age, course of the participants. Edinburgh Handedness Inventory: A set of questions about his hand usage in 10 various day to day activities to assess whether the person is left handed, right handed or both. The Vandenberg Mental Rotation Test: It has two parts of ten pictures each which have four options which are rotated in three dimensions. The person is asked to select the correctly rotated two pictures in 3 minutes for each part of the test and the ability is assessed.

Results

A total of 42 students were assessed and out of that 16 were males and 26 were females. Out of 16 males, 6 were left handed, 8 were right handed and 2 were ambidextrous. Out of 26 females, 3 were left handed, 21 were right handed and 2 were ambidextrous. In mental rotation test, males performed better than females and right handed persons performed better than left handed persons.

Conclusions

In assessment of visio-spatial abilities, males performed better than females and right handed persons performed better than left handed persons.

Key Words: Handedness, visio-spatial ability, mental rotation, Edinburgh Handedness Inventory, Vandenberg Mental Rotation Test.

Assessment of Depression in Patients on Haemodialysis

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Introduction

Haemodialysis is the most commonly used renal replacement therapy for chronic kidney disease. Depression is also prevalent among these patients. It's a positive predictor of mortality and should be sought and treated. Aims: 1. Assess depression in patients on haemodialysis. 2. Assess subjective feeling of depression. 3. Correlate objective assessment with subjectively reported 'Depression'. 4. Assess healthcare seeking behaviour regarding mental health. 5. Correlate depression with weekly frequency/no. of months of haemodialysis.

Materials and Methods

Patient Health Questionnaire-9 (PHQ-9) and the Case Record Form (CRF). Single-observer, hospital-based, cross-sectional study, conducted over two months. 28 consenting participants included and assessed using CRF and PHQ-9. Data analysis done using ANOVA and Student's t-test.

Results

Depressive disorder (PHQ-9 score ≥ 5) was present in 21/28 (75%) patients. From CRF, no. of patients responding YES to —(Q1.) Are you depressed now? = 4/28 (14.24%), —(Q2.) Have you felt depressed previously (during course of haemodialysis)? = 3/28 (10.71%), —(Q3.) Have you visited a doctor for depression? = 2/28 (7.14%), —(Q4.) Have you ever been treated for depression? Were excluded from the study. —(Q5.) Do you feel your Quality of Life (QOL) has deteriorated since beginning haemodialysis? = 18/28 (64.28%). Functional impairment was present in 23/28 (82.14%) patients. No statistically significant correlation noted between depression severity scores and age, sex, months on haemodialysis or frequency/week. Also, positive responses to Q1 showing higher severity scores (v/s low scores for negative responses) were not statistically significant. Statistically significant correlation present between depressive disorder and positive response to Q2 ($p=0.0181$), Q3 ($p=0.0032$), Q5 ($p=0.0058$) and functional impairment ($p<0.0001$). Therefore, depression strongly correlates with functional impairment (but not subjective 'depression'), a feeling of deterioration of QOL, healthcare seeking behaviour and previous feeling of being depressed while on

Conclusions

Depression on haemodialysis is more prevalent than assumed. Recommended that all patients at least be screened (by 1 question each) about functional impairment and deterioration of QOL. Positive responders should be immediately assessed by PHQ-9 and a psychiatrist if relevant. Assess Q1-5 also. Improving awareness amongst and providing more information to patients and caregivers is vital.

Key Words: Dialysis, depression, QOL, mortality, PHQ-9

Assessment of Delirium in Geriatric Inpatients of a Tertiary Urban Teaching Municipal Hospital

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Introduction

Delirium is one of the commonest acute disorders affecting the elderly in general hospitals. The estimated occurrence of delirium in elderly patients is 14% to 24% at the time of hospital admission and the incidence rises to 6 to 56% during hospital stay. Delirium often goes unrecognised and undetected

by physicians and nurses or worse it is misdiagnosed. It is also a predictor of long-term functional decline and permanent loss of functional independence. Aims: 1. To assess the prevalence of delirium in geriatric inpatients in a tertiary care municipal hospital. 2. To evaluate factors affecting delirium and the response to intervention in detected cases.

Materials and Methods

We randomly selected 60 patients aged 60 years and above admitted in various wards of the hospital. A cross-sectional interview of the 60 inpatients was then carried out using a self-constructed case record sheet and the CAM instrument as the diagnostic tool. The data thereby attained was then analysed statistically.

Results

A prevalence of 6.67% was found in our study population. Hypoactive delirium was most likely to be missed by physicians and nurses. We identified smokeless tobacco, large number of admission medications, analgesics/anti-inflammatory drugs, CNS drugs and antihypertensive medications as potential contributory factors for development of delirium. Of the 4 patients found to be delirious only 2 received medical interventions with haloperidol, 1 recovered spontaneously and 1 did not receive any form of intervention. All the patients found to have delirium on CAM had a hospital stay of two weeks or more. Thus, delirium increased the duration of hospital stay and patient care costs.

Conclusions

Delirium in the elderly largely remains an overlooked and unrecognised entity. Early diagnosis and appropriate intervention would reduce morbidity associated with delirium in the elder. It is imperative that primary care physicians be trained to identify delirium in the elder. This would help us to intervene earlier and help reduce the burden of illness and health care costs in the community.

Key Words: Psychiatry, delirium, geriatric, prevalence

Awareness and Practices Regarding Helmet Use among Students Riding Motorised Two Wheelers

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Introduction

Road traffic accidents (RTA) due to motorised two wheelers account for about 1.2 million deaths, which is higher than the deaths due to infectious and non-infectious diseases. In south East Asian countries like India this holds significance as majority own a two wheeler. The startling fact is that these accidents include children and young adults. Wearing a good quality buckled helmet is the single most effective way of reducing the RTA fatalities. Aims: This study aimed to find the level of awareness and practices regarding helmet usage among the students of Manipal College of Dental Sciences (MCODS), Mangalore

Materials and Methods

This anonymous questionnaire based cross sectional study was done among students riding a two wheeler after obtaining necessary permission and informed consent.

Results

Of a total 409 students 175 were two wheeler riders and used a helmet. Of them 145 responded to the questionnaire (response rate 82.8%). Most (120, 98%) students knew that the helmet was a protective gear. Only (103, 71%) of the students thought that helmet use should be made compulsory. An interesting observation was that most of the subjects wore the helmet out of fear of law rather than for safety reasons. Although (113, 91.1%) subjects were aware about the safety benefits of helmets, only 63% actually wore them regularly. One of the reasons for reluctance to wear a helmet was that the subjects found it heavy and, of course, hairstyle-unfriendly!! Another interesting observation was that all those people who met with a RTA strongly advocate helmet-use while riding.

Conclusions

This study draws attention to the remarkable disparity between awareness of safe helmet usage (98%) and the practice of actually wearing them (63%) among these students. As most of those who wore helmet did so due to fear of law, there is a need to increase awareness and make the students understand the importance of helmet use. This would help in voluntary use and may result in increased use of helmet among the two wheeler riders.

Key Words: Helmet, road traffic accidents, motorised two wheeler, questionnaire, motorcyclists

Assessment of Cervical Spine Involvement in Rheumatoid Arthritis in a Rural Set-up

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Introduction

Rheumatoid arthritis is a chronic immuno-inflammatory disorder of unknown etiology. The frequency of cervical spine involvement has been reported to vary from 17.7-86% in various studies. Complications of cervical spine involvement are joint space narrowing, erosions, subluxations, sclerosis, fusions leading to compressive myelopathy, quadriplegia, sudden death. 50% patients are asymptomatic. Early detection is a necessity because of high cost of surgical repair. Aims: 1) To assess the incidence of cervical spine involvement in RA patient attending ortho OPD in our hospital with the help of X-ray cervical spine and its co-relation with serological markers. 2) To find out relationship between disease severity and duration with spine involvement.

Materials and Methods

This was a cross-sectional study. All patients with RA were taken from the inpatient section (ward) and OPD of the department of Medicine and Orthopaedics from June 2010 to July 2010. Cervical spine AP view with open mouth focusing on atlanto-axial joint, odontoid process; lateral view in extension and atlanto-axial joint were done. X-ray were evaluated for erosions, subluxations and spondylitis of cervical spine. Laboratory examination done included RA factor, CRP levels by latex agglutination method, ESR by Westergren's method.

Results

Our study consisted of 22 diagnosed cases of RA. Incidence of

cervical spine involvement in RA patients is 22.72% in our study. Age of cases varied from 40-70 years, out of which 21 were females and 1 male. The duration of illness varied from 6 months to 12 years. Neck pain was present in 13 patients (59.09%). Neurological deficit was found in none. RA nodules found in 1 patients (4.54%). ESR was raised in 16% (72.72%). CRP was raised in 13 patients (59.09%); RA factor was positive in 9 (41%), while radiological erosion was found in 1 patient (4.54%). Cervical spine changes were present in 62.5% patients who had neck pain. As against this, they were present in only 11% of those who had neck pain. This difference was statistically significant ($P < 0.01$). ESR was found to be elevated in all patients with cervical spine involvement. Although CRP levels were high in 60% patients with cervical spine changes, the difference was not found to be statistically significant.

Conclusions

The Incidence of cervical spine changes in RA patient was found to be 22.72%. A strong co-relation was found between presence of symptoms and raised ESR with radiologically evident cervical spine lesions; no associated neurological complications were noted. Patients with raised ESR and duration >5 yrs had high prevalence. In conclusion, incidence of Cervical Spine varies and CT, MRI crucial for confirming diagnosis.

Key Words: Rheumatoid arthritis, cervical spine, erosion, subluxation, ESR, CRP, neurological complications

Awareness Regarding Hepatitis B and Status of Immunisation among Medical Undergraduates of KMC, Mangalore: A Cross Sectional Study

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Introduction

Hepatitis B is a potentially life threatening infectious disease of the liver caused by the Hepatitis B virus. It is transmitted through contact with blood or other body fluids of an infected person. An estimated 2-5% of the Indian population is chronically infected with this virus which is far more infectious than HIV. In the healthcare sector, it is an important occupational hazard and awareness regarding this disease assumes greater importance due to the fact that it is preventable. Also, a very safe and effective vaccine is available against the virus. Aims: To assess the awareness regarding Hepatitis B among the medical undergraduates and to find the status of immunisation among them.

Materials and Methods

A pre-tested questionnaire based cross sectional study was conducted among the undergraduates of KMC, Mangalore and a total of 250 students were surveyed from the 4th and 6th semesters.

Results

Though a majority of the subjects correctly identified the common modes of transmission, only 45.7% and 22.2% of them could identify tattooing or body piercing and sharing of toothbrushes as possible modes of transmission, respectively.

While 79.1% of the subjects believed screening for Hepatitis B before blood transfusions would help prevent it, only 44.3% acknowledged the role of contraception in its prevention. 79.2% of the subjects believed that the vaccine can be administered at any age and 61.1% also identified the correct route of administration. 70.5% of the subjects have ever taken a shot of the vaccine, though only 45.24% of them have undergone complete vaccination. 82.4% of them were aware of the increased risk of infection in the Healthcare sector.

Conclusions

On comparing these results with similar studies done elsewhere, the study sample was found to have fared relatively better. With majority of the subjects correctly identifying the common modes of transmission and prevention and a large number also having undergone complete vaccination, it can be said that the subjects were well informed. Yet, a considerable number remain to be vaccinated and measures such as media campaigning, education of students in schools and colleges and reaching out to high risk category populations should be pursued for furthering awareness.

Key Words: Hepatitis B, immunisation status, medical Undergraduates

Assessing the need of Chiroprody in Diabetic Patients in a General Hospital

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Introduction

Approximately a quarter of all people with diabetes worldwide at some point during their lifetime will develop sores/ulcers in the skin of their feet. Foot-related problems are responsible for 50% of diabetes-related hospital admissions. Aims: 1. No. of Diabetic patients prone to develop an ulcer. 2. How many patients were explained the principles of chiroprody; and if known then how many diabetic patients would have been benefited. 3. Prevention better than cure by establishing a chiroprody OPD besides a diabetic OPD. Can we decrease this associated economic burden borne by the society? 4. Cost effectiveness of establishing chiroprody counseling OPD.

Materials and Methods

It's a prospective cross-sectional study. Period-one month. It includes patients diagnosed with diabetes or diabetic foot and/or admitted and receiving surgical and medical care. They will be evaluated on basis of questionnaire including history, examination (sensations, trophic changes, ulcer findings), investigations and medication. The no. of patients who received individualised counseling on foot-care and preventive measures for diabetic foot, and the ones who followed and were benefited from it. Total amount spent by patient during hospital stay will also be evaluated and compared to the amount spent by a patient if a chiroprody OPD is established, consisting of a chiroprodist, dietician and counselor.

Results

65% of diabetic patients have symptoms, and 50% of diabetic patients have signs-suggesting an increased probability of developing an ulcer. Only 22.73% were taught about foot care. Out of 10 diabetic ulcer patients, only 1 was told about foot care which he did not follow. All the diabetic foot patients

felt, had they been taught about foot-care, their condition could have been prevented. Average hospital and operative cost incurred by a patient is rs.3800/event. However, a regular weekly professional chiropody care will cost only rs.520/year to a diabetic patient. Few studies have shown very small percent of diabetics receiving preventive podiatric education. Establishing chiropody OPD is cost effective in comparison to diabetic foot amputation and treatment in a tertiary care hospital and also saves the working hours of the employed people.

Conclusions

Early recognition and foot-care can reduce the losses incurred by patient and hospital in terms of money and resources assuring least limb morbidity and mortality. Hence, a chiropody OPD should be established for cost-effective management of diabetics.

Key Words: Diabetes, foot-care, cost-efficiency

**Analysis of the Inflammatory Process
by Measuring the Nitrite Level in
Dental Implants**

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Introduction

The Nitric oxide is considered to be harmful and has been implicated in the pathogenesis of a wide variety of inflammatory diseases. The evaluation of the involvement of nitric oxide around dental implants will enable us to understand the complexity of implant failure. Aims: The purpose of the present study was to analyse the level of nitric oxide in the peri-implant sulcus fluid (PISF) of implants in healthy and diseased state.

Materials and Methods

45 dental implant sites either healthy/ non healthy were taken from where nitrite level were spectrophotometrically determined. The student T test was used for comparison of the clinical inflammatory status of the nitrite level between the two groups.

Results

The results exhibited that the PISF from the inflamed sites had higher nitrite content than non inflamed sites (

Conclusions

The present study demonstrate that the PISF is likely to have a considerable diagnostic potential for reflecting the biological changes around the load bearing endosseous dental implants.

Key Words: Dental implants, PISF, nitrite level

**An Evaluation Of Diagnostic Efficacy
of FNAC with Histopathological**

Correlation in Lymphnode Lesions

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V

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Introduction

Fine needle aspiration cytology is being widely accepted for the diagnosis of any palpable mass in the body. It is considered as an important first line diagnostic test for the evaluation of palpable lymph nodes. It is a simple investigation which does not require any sophisticated equipment and can be performed as an outdoor procedure. The use of Fine needle aspiration cytology (FNAC) in the investigation of lymphadenopathy has become an acceptable and widely practiced minimally invasive technique which is safe, simple, rapid, cost effective and relatively pain free. Aims: To study the cytomorphology of the FNAC of the lymphnodes and diagnose the inflammatory and tumorous conditions and to correlate the FNAC findings in lymphadenopathies with the histopathology diagnosis wherever possible.

Materials and Methods

A Syringe (10ml) with a needle (24 gauge) and a FNAC 'gun' are used to aspirate by applying negative pressure in the syringe and with simultaneous to and fro movements of the needle within the tumour in different directions. The negative pressure is released and the needle is taken out. Air is drawn into syringe and the needle again fixed to syringe and the aspirated in the needle is blown out on to 3-5 slides and the smears are prepared by smearing with another glass slide. They were stained by May-Grunwald Giemsa's (MGG) staining, Haematoxylin and Eosin, and papinocolaou staining.

Results

This study was carried out from 1st May 2010 to 30th June 2010 in the department of Cytology, JSS Hospital of JSSMC. Out of the 50 cases studied male to female ratio was 1.083:1, 31 showed reactive hyperplasia, 5 cases of granulomatous lymphadenitis, 7 cases of metastasis, 5 cases of acute suppurative lesions and in 2 with scanty material were observed.

Conclusions

FNAC is an easy, cheap, less painful and a rapid diagnostic investigation of making the diagnosis. In cases of lymphadenopathy, reactive lymphadenitis (non specific lymphadenitis), granulomatous lymphadenitis-tuberculosis and metastases can be diagnosed early with ease and enables the patient to receive early treatment without any painful biopsy or any further costly investigation

Key Words: FNAC, cheap, rapid diagnostic investigation, lymph nodes lesions

**An Epidemiological Study of Dental
Fluorosis among Higher Secondary
School Children belonging to an
Endemic Rural Area in Nalgonda
District, Andhra Pradesh**

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Introduction

A total optimum intake of fluoride per kilogram body weight=0.05 -0.07 mg for m; The average daily intake of fluoride by adults from food substances = 0.2-1.8 mg and from water containing 1ppm fluoride = 1.5 mg. The total daily intake = 1.7-3.3 mg. Ingestion of fluoride above the optimum levels through water (India 1.5ppm) and food causes Fluorosis. In A.P, Gujarat and Rajasthan 70-100% of districts are affected. Fluoride levels in A.P water=0.4-29 mg/lit. Nalgonda is one of the highly endemic districts for fluorosis in A.P. Prevention and control depends upon the degree and type of Fluorosis observed in the study population and the magnitude of the problem. Aims: To assess the prevalence of Dental Fluorosis in the study populatio To study the epidemiological factors pertaining to Dental Fluorosis

Materials and Methods

A school based cross-sectional study. Study area includes 3 randomly selected schools from Narketpally mandal of Nalgonda district as this is an area with high prevalence. From all higher secondary standard children present on the day of data collection, data was collected by one-on-one interview technique using a pre-designed, pre-tested and semi-structured questionnaire and individuals were subjected to thorough clinical examination. Dental Fluorosis is assessed clinically by Dean's index (WHO 1997). Water samples were tested for fluoride levels by a Fluoride Ion-Specific Electrode Method in the Biochemistry Department. Sample size= $4 \times 63 \times 37 / 6.3 \times 6.3 = 9324 / 39.69 = 234.92$. The data was compiled and analysed by using SPSS statistical package version 17. Chi square test will be used to study the test of significance.

Results

Total average mean age of children-13.82years. Average duration of stay-13.76years. Majority of children socio-economic status-upper lower of children have knowledge about Fluorosis, source of Fluorine, role of calcium and Vitamin-C in dental fluorosis. Mean Fluoride level of water samples=7.3ppm, range=0.31-22.3ppm. Major grading of Fluorosis prevalence by Dean's index= Mild-25.92%, Moderate-24.07%, Very mild-20.37%. Overall prevalence of Dental Fluorosis-88.88%.

Conclusions

To paraphrase Denis Birkett "if water is making mess on the floor, it is better to turn off the tap than to mop the floor". Efforts from health care workers and concerned authorities will be essential in curtailing this problem.

Key Words: Dental fluorosis, water, fluoride levels

An Assessment of the Effects of Strabismus on the Quality of Life (QOL) in Children using the Children's Visual Function Questionnaire (CVFQ)

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Introduction

"Squint" eyes in children are a frequently encountered

condition, some presenting with it since birth others later on in life. The child with such a condition will encounter various problems unrelated to his vision, but which affect their quality of life. When examining a child with strabismus the ophthalmologists concentrate on the eyes, give the diagnosis and the treatment but they seldom think of the child's mental and social state. We need to give more importance to these aspects of the child's life. Aims: To elicit the effects of strabismus on the child's life socially, psychologically and functionally; to determine the type of concerns faced by them and to summarise the effect of the condition on the family.

Materials and Methods

50 children aged below 12 years were chosen for the study and the QOL of the child was determined using the CVFQ (Children's Visual Function Questionnaire). The CVFQ has been recently developed and validated for use with pediatric eye patients (Feliu et al, ARVO- the Association for Research in Vision and Ophthalmology, Inc., 2004). The questionnaire has 6 subscales – general health, general vision, competence, personality, family impact and treatment; and 2 parts – one applicable for the children aged below 3 years (Group 1) and the other to the children aged 3 and above 3 years (Group 2). The scores of each child under the 6 subscales were tabulated and conclusions drawn.

Results

Under both the groups, females had better scores; alternating squint had better scores compared to unilateral squint and exotropia had better scores compared to esotropia. On comparing the two groups, all the subscales scores were higher in case of Group 1 except for treatment subscale. On applying the student's t test, difference in scores between them with respect to family impact and competence were found to be statistically significant.

Conclusions

Strabismus not only impairs the vision but it also affects the child's life. QOL gradually decreases as the child's age increases. Children with alternating squint/exotropia have comparatively better QOL scores and females as such have better scores.

Key Words: Strabismus, children, quality of life, children's visual function questionnaire.

Age of Suspicion and Diagnosis of Hearing Impairment in Children Attending Special Schools

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Introduction

WHO estimates for the year 2005, 278 million people have hearing loss worldwide. Congenital hearing loss affects 1.5 in 1000 live births. Prevalence of deafness in India is approximately 60 million of the total population. Recent research concludes children born with hearing loss, identified and given appropriate intervention before 6 months of age, demonstrated better speech and reading comprehension than children identified after 6 months of age. Routine screening of infants for hearing impairment is a vital component of health care in developed countries. However universal newborn

screening for hearing loss is currently not implemented in India. Aims: 1. To identify the mean age of suspicion, diagnosis and treatment of hearing impaired children attending special schools in Karnataka and Kerala. 2. To identify factors causing a delay in the identification, intervention and amplification of hearing impaired children.

Materials and Methods

The parents of 273 hearing impaired children attending special schools were interviewed over a period of 6 months. When direct interviews were not possible the parents were asked to fill and return questionnaires in their native languages.

Results

Age of suspicion was between 0-6 months. Age at diagnosis of hearing impairment was between 6-12 months, with an average of 6 months delay between suspicion and first medical contact. Intervention was between 18-24 months, with an average of 6 months delay between diagnosis and intervention in any form. Amplification with hearing aids was between 30-36 months, with an average delay of 1 year between diagnosis and amplification.

Conclusions

Parents must be better informed about the available resources. The joint committee on infant hearing recommends amplification by 6 months of age. We fall behind the recommended period by almost 2 years. The disparity between the ages of intervention and amplification shows that most children receive their hearing aids after admission to special schools as a part of government aid which maybe explained by financial constraints and lack of awareness among parents. Need for a universal screening programme in newborns for hearing impaired with the use of immunisation clinics as platforms for delivering infant screening needs to be investigated.

Key Words: Congenital hearing loss, delay, intervention, amplification

Acne - Clinical Assessment and Impact on Quality of Life

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Introduction

The life time prevalence of acne reaches 90% which is highest in adolescents. Recent studies have substantiated the psychological impact and support a causal, and at times reciprocal, link between acne and the emotional and functional status of the patient. Demonstrated psychological abnormalities include depression, suicidal ideation, anger, anxiety, depression, dysmorphophobia pain, discomfort, embarrassment and social inhibition. As there is not always a correlation between the severity of acne and its impact on quality of life, it can be helpful for the dermatologist to use a quality of life scale to determine the psychological impact of acne on patients in order to optimise therapy. Hence this study is aimed to do so. Aims: 1. To determine the epidemiological characteristics of acne. 2. To grade the severity of acne. 3. To assess the impact of acne on quality of life of patients. 4. To correlate factors such as the age and sex of the patient, duration, severity, site of acne and the treatment taken with

the impact of acne on quality of life.

Materials and Methods

Case record sheet, Global Acne Grading System, Cardiff Acne Disability Index, Single-observer, hospital-based, cross-sectional study, conducted over two months, 33 consenting participants. Data analysis done using ANOVA and Student's t-test.

Results

Mean CADI is 8.6 (maximum score is 15), Commonest site of lesions is face. Statistically significant ($p=0.0061$) higher mean CADI in females (9.43) as compared to males (7.08). Statistically significant ($p=0.0117$) higher mean CADI in age group 15-22 years (9.47) as compared to age group 23-30 years (7.36). Statistically significant ($p=0.0010$) higher mean CADI in patients with complications (9.57) as compared to those without (6.83). No statistically significant correlation noted between grade and duration of acne with CADI.

Conclusions

As severity might not always correlate with the psychological impact, therapy can be optimised by individualising treatment based on not only the severity of acne but also the impact on quality of life. It is hoped that cost-effective and socially acceptable intervention strategies will be employed to provide acne patients not only with clinical cure, but also psychosocial relief.

Key Words: Acne, QOL

Acinetobacter Species - An Emerging Pathogen in Neonatal Septicemia

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Introduction

Septicaemia remains a significant cause of morbidity and mortality in the newborns, more so in the developing countries. Along with other organisms like E.coli, Klebsiella spp., Staphylococcus aureus, Pseudomonas spp., Salmonella sp., Acinetobacter sp. Are gaining importance as a potential pathogen in neonatal septicemia because of its frequent isolation and multidrug resistance. Aims: The aim of the present study is to investigate the incidence of Acinetobacter septicemia in neonates and its antibiotic resistance pattern

Materials and Methods

Neonates admitted to the neonatal intensive care unit with signs suggestive of sepsis were recruited into this prospective study. Blood culture and antibiotic sensitivity test were carried out

Results

Out of 50, 14 were blood culture positive. The Acinetobacter accounted for 5 (35.7%) of the blood culture positive sepsis. Other organisms were Citrobacter koseri (7.14%), Klebsiella oxytoca (7.14%), Staphylococcus aureus (14.29%), Klebsiella pneumoniae (21.42%), Pseudomonas aeruginosa (7.14%), Coagulase negative Staphylococci (7.14%). The organisms were sensitive to ampicillin (20%), ciprofloxacin (40%), Amikacin (40%), Gentamicin (60%), Doxycycline (20%), meropenem (100%), imipenem (100%), piperacillin (100%).

Conclusions

Acinetobacter is the commonest organism causing neonatal sepsis, next to Acinetobacter is klebsiella species. Low birth weight and preterm delivery are the potential risk factors of Acinetobacter sepsis. Sensitivity of Acinetobacter has changed over the years, previously they are sensitive to cephalosporins but now they have become resistant to it. High incidence of sepsis in institutional delivery indicates that the theatre protocol should be maintained.

Key Words: Acinetobacter, multi drug resistance, neonatal sepsis

To Study the Factors with Respect to Housing Conditions and the Awareness Levels Among Cases of Malaria in a Tertiary Care Hospital in Mumbai

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Introduction

Malaria is a major public health problem in India. Understanding the epidemiology of this disease and improving the awareness levels of the people will help us combat the malaria problem. The results of the study could be used to guide future malaria programmes in the city. Aims: 1) To study the housing conditions of cases of malaria with respect to overcrowding; ventilation; lighting; water supply, storage and drainage and solid waste disposal. 2) To assess the knowledge (cause, signs and symptoms) regarding malaria among the cases. 3) To find out the usual practices known and the ones those are actually used for malaria prevention in the households of the cases

Materials and Methods

A cross – sectional study was carried out in the months of July and August 2010 at a tertiary care hospital in Mumbai. 139 cases detected as malaria parasite positive on peripheral smear were included in the study. A pretested 47 item structured questionnaire was used for seeking information from the participating subjects. The data was presented in the form of proportions and univariate and multivariate analysis was done.

Results

It was found that 60.4% of the respondents had overcrowded houses, 51.1% had poor ventilation and 50.4% had ill lit houses. 50.7% had a construction site nearby, while 58.7% had an overhead tank in the vicinity. The knowledge about malaria transmission and regarding the signs and symptoms of malaria was fairly good. However, there were knowledge gaps among certain responders. The responders very well knew that malaria was preventable, but surprisingly, 41.7% of the responders did not actually use any method. (Two tailed P-value <0.0001)

Conclusions

Housing factors have a bearing on the incidence of malaria and the so called man - made malaria is on the rise. More ever, the practical implication of anti malaria measures in the community is low. The use of easy, cheap and effective anti malarial measures should be advocated to bring down the malaria problem.

Key Words: Malaria epidemiology housing prevention awareness

Assessment of Co-relation between Small for Gestational Neonates and Associated Maternal Risk Factors in a Rural Set-up (Abstract id-11131)

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Introduction

SGA neonates are defined as birth weight<10th percentile for that particular gestational age. They are prone to develop hypo-glycemia and cold stress in neonatal period with long term consequences like poor neurological development. Hence it is important to recognise them in order to be prepared to manage them atAims: 1) To determine the incidence of SGA neonates. 2) To study the extent of association between various maternal parameters and occurrence of SGA neonates

Materials and Methods

It was an observational cross-sectional study. 167 mothers, who delivered in our hospital were studied. Gestational age was determined from LMP and USG's performed in the 1st, 2nd and 3rd trimester and were classified into SGA and AGA by plotting the birth weights against their respective gestational ages(GA) on graph . Mothers were studied for presence of any risk factors by taking detailed history and performing physical examination. Results were statistically analysed.

Results

Out of 167 mothers studied over 6 months, 124 gave birth to SGA's and 43 to AGA. Therefore, the incidence of SGA neonates was found to be 27%. Average maternal age was 22.8 years with standard deviation of 3.509; 44 mothers of age upto 20 years had SGA neonates. No statistical significance was found (odd's ratio- 1.42; X2- 0.6662). We found increased incidence of SGA's in primiparous mothers (not significant,X2 -1.89). 101 mothers with inter-pregnancy interval<2 yrs gave birth to SGA's(difference not significant,X2 – 0.43, odd's ratio-1.66). 77.41% mothers with pre-pregnancy weights >>50 kgs had SGA's(not significant; X2-3.3003). 70.16% mothers with height less than 150 cms had SGA's(X2- 4.46 significant for P> < 0.1). Also 29.03% of mothers with BMI<2 kg/sq.m gave birth to SGA's (X2- 3.87 significant for P> <

Conclusions

Incidence of SGA neonates in our hospital was found to be 27%. The study showed statistically significant association between maternal height and BMI with occurrence of SGA neonates.

Key Words: SGA, maternal BMI, maternal height

Combination Therapy of Glimepiride & Metformin versus Glimepiride & Pioglitazone in the Management of Type 2 Diabetes Mellitus

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Introduction

India has 40 million diabetics. Globally diabetics will rise from 220 million in 2010 to 370 million by 2030. Type 2 diabetes mellitus (DM) accounts for 90-95% of those with diabetes. Ideal goals for glycaemic control: Preprandial plasma glucose 90-130mg/dl; Post prandial plasma glucose<180mg/dl and HbA1c>Aims: To compare the efficacy of combination therapy of glimepiride and metformin vs. glimepiride and pioglitazone in the management of type 2 DM as regards control of fasting blood sugar (FBS) and glycosylated hemoglobin (HbA1c) and to compare the side effects(S/E).

Materials and Methods

30 newly detected patients of type 2 DM who had FBS>126mg% or RBS>200mg% on more than one occasion and were not on any oral hypoglycaemic drug earlier, were selected and divided into two groups of 15 each. These were free from renal disease, active liver disease, retinopathy, neuropathy and cardiovascular disease. Group A was given Glimepiride(1mg) and Metformin(500mg), while Group B was given Glimepiride(1mg) and Pioglitazone(15mg) for 4 weeks. FBS was done at beginning, after 2 weeks and at 4 weeks. HbA1c was done at beginning and at 4 weeks. At 2 weeks assessment was done clinically and by FBS. If needed the dose was increased in increments of Glimepiride 1mg, Metformin 500mg and Pioglitazone 15mg in their respective groups.

Results

The mean fall in FBS was 5.60±1.47mg/dl and 5.76±2.84mg/dl in group A and B respectively. The mean fall in HbA1c was 0.41±0.55% and 0.50±0.13% in group A and B respectively. However the fall was not significant statistically because of the short duration of study. S/E in group A were hypoglycemia (6.67%), GI disturbances (6.67%), edema (13.33%) and weight gain (26.67%) while in group B hypoglycemia (13.33%) and GI disturbances (20%).

Conclusions

There was fall in both FBS and HbA1c levels in both groups. The glycaemic control established with glimepiride+ pioglitazone is comparable with glimepiride+ metformin. However glimepiride+ metformin produces more of hypoglycemia and GI disturbances whereas glimepiride+ pioglitazone produces more of weight gain and edema, thus should be avoided in cases with CHF and renal failure.

Key Words: Type 2 Diabetes mellitus, Combination therapy of glimepiride & pioglitazone, Combination therapy of glimepiride & metformin, fasting blood sugar, glycosylated haemoglobin

CT Evaluation of Prognostic Factors of Traumatic Brain Injury

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Introduction

Traumatic brain injury is one of the most common, serious disabling neurological disorder involving younger and older. Today, physician's estimate of prognosis are still often unduly

optimistic, unnecessarily pessimistic, or inappropriately ambiguous. Accurate assessment of prognosis is important for the use of specific methods of treatment - whether or not to withdraw treatment - counselling patients and relatives-research or audit purpose.Aims: To find the outcome of traumatic brain injury patients coming for CT Scan in Radiodiagnosis department of Dr. B. R. A. M. Hospital, Raipur in relation to various clinical and CT variables.

Materials and Methods

Study type - Prospective observational study. Setting - Department of Radiodiagnosis, Dr.B.R.A.M. Hospital, Raipur. Duration - July - December 2010. Study Size - 100. Inclusion Criteria. - loss of consciousness, vomiting, ENT bleeding or positive CT findings, all age and both sexes, no other condition which can contribute to mortality. Exclusion Criteria; GCS 15, normal NCCT Head findings and absent symptoms of head injury. Study variables: Particulars of patients, GCS on admission, CT findings on admission, Glasgow outcome scale (GOS) ON 14th DAY, Favourable GOS - 4,5, Unfavourable GOS - 1,2,3

Results

Unfavourable outcome was observed in 14.28% patients aged 0-10 yrs, 31.58% aged 11-20 yrs, 20% aged 21-30 yrs, 38.89% aged 31-40 yrs, 10% aged 41-50 yrs, 77.78% aged 51-60 yrs, 40% aged 61-70 yrs and 100% aged more than 70 yrs. Unfavorable outcome was observed in 78.79% patients with GCS 3-8, 14.29% patients with GCS 9-12 and 2.56% patients with GCS 13-15. Unfavourable outcome was observed in 69.7% patients with midline shift and 13.43% patients without midline shift. Unfavourable outcome was observed in 93.33% patients with midline shift more than 5 mm and in 50% patients with midline shift less than or equal to 5 mm.

Conclusions

Age, GCS and midline shift (with mass lesion) on NCCT head are independent predictors of TBI with high PPV. Simple independent can be used to obtain valid predictions of relevant outcomes in patients with traumatic brain injury.

Key Words: CT, Traumatic Brain Injury, GCS

Cross-Sectional Study of Physical Activity Score and its Association with Chronic Lifestyle Diseases

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Introduction

Physical (in)activity is a known risk factor for chronic lifestyle diseases (CLDs). Yet, few studies have till date investigated duration, frequency and intensity of physical activity in relation to these diseases. This study aims to do so.Aims: To study physical activity levels in patients of CLDs like diabetes mellitus(DM), hypertension(HTN) and chronic joint pain(CJP) and to evaluate its relationship with socio-demographic and anthropometric measures.

Materials and Methods

A community based cross-sectional study was conducted for 2 months at Mumbai. Cases (n=191) were adults (age>18 yr) with a known history of DM, HTN and CJP. Control (n=180) were

adults without any known history of these diseases. Pregnant women and women on hormonal contraceptives were excluded. Information was collected through modified International Physical Activity Questionnaire based upon WHO Steps approach and data was analysed using SPSS v.17.

Results

371 people were studied. No difference ($p=0.8927$) was found between total activity scores (TAS) of males and females. Prevalence of CLDs was found to be correlated ($p= -0.2932$, $p<0.001$) with TAS. This correlation remained significant for both work time activity scores (WTAS) ($p= -0.2049$, $p<0.001$) and leisure time activity scores (LTAS) ($p= -0.2532$, $p<0.001$), although correlation was stronger for LTAS. TAS was inversely related to age. ($p= -0.2998$, $p<0.01$). However in presence of different CLDs (DM $p= -0.0695$, HTN $p= -0.0818$, CJP $p= -0.1605$, $p<0.05$), age was found to have a lesser effect on the decrease in TAS (non DM $p= -0.3040$, non HTN $p= -0.2830$, non CJP $p= -0.3140$, $p<0.01$). Also TAS decreases with increase in monthly per-capita income ($p= -0.1713$, $p<0.001$). BMI is inversely related to TAS ($p= -0.1890$, $p<0.01$) while WHR is not ($p= -0.0750$, $p>0.05$). Lastly increased TAS tends to maintain a lower Systolic BP(SBP) only when the person is on anti-hypertensive treatment (AHT) ($p= -P<0.01$) versus when he is not on treatment ($p= -0.1102$, $p>$

Conclusions

Prevalence of CLDs goes on decreasing with increasing TAS. This decrease is much more with increasing LTAS than WTAS. Thus studies aimed at decreasing CLDs should concentrate more on interventions involving leisure time activity. Also in presence of different CLDs age tends to have a lesser effect in decreasing TAS of community. This could be due to the effect of Basal Physical Activity Level, which requires further research. Physical (in)activity is an independent risk factor from central obesity for CLDs. Lastly, increased TAS tends to maintain a lower SBP only when a person is on AHT and not otherwise, which requires further research.

Key Words: Physical activity score, chronic lifestyle diseases, Diabetes Mellitus, hypertension, chronic joint pain

Correlation of Plasma Insulin Levels with Serum Ferritin Levels in Non-Diabetic Thalassemia

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Introduction

Thalassemia constitutes a heterogeneous group of inherited disorders characterised by decreased production of one or more of the normal polypeptide chains of hemoglobin resulting in microcytic hypochromic anaemia of varying severity.Aims: 1.To study plasma insulin levels, insulin resistance index, β -cell function index in non-diabetic chronically transfused thalassemia patients and to compare these with controls. 2.To study serum ferritin levels in non-diabetic chronically transfused thalassemia patients and to compare these with control. 3.To find out the correlation between plasma insulin levels and serum ferritin levels in non-diabetic chronically transfused thalassemia patients. 4.To find out the correlation between insulin resistance index, β -cell function index and serum ferritin levels in non-diabetic chronically transfused thalassemia patients.

Materials and Methods

The present study was conducted in 60 clinically confirmed thalassemia children attending thalassemia clinic of Pediatrics department at R.H. Patiala. For comparison 30 age and sex matched controls were; included in the study. Special investigations were carried out for serum insulin and serum ferritin.

Results

Levels of SI, SF, SGOT and SGPT were significantly higher in cases, Insulin Resistance Index was observed to be more in cases, whereas FPS, S. Bilirubin, and beta cell function Index was not significantly deviated in cases, compared to control group. A directly proportional relationship was found between SF and SI levels.

Conclusions

It was evident from the study that increased body iron stores reflected by SF levels had a statistically significant directly proportional correlation with SI levels. Insulin resistance (IR) is compensated by hyperinsulinemia, which sets in early even before the onset of frank diabetes mellitus and correlate well with SF.

Key Words: Thalassemia, Insulin, Insulin resistance, Ferritin, Beta-cell function index

Correlation of Heart Rate Variability with Iron Deficiency Anaemia in Adolescent Girls

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Introduction

Cardiac autonomic function has been studied in anemic patients of various etiologies like vitamin B12 deficiency, sickle cell trait, Thalassemia major. Iron deficiency is the most common nutritional deficiency in developed and developing regions of the world.Aims: 1. Aimed to assess cardiac autonomic activity in adolescent girls with iron deficiency anaemia. 2. To correlate serum ferritin level with cardiac autonomic activity.

Materials and Methods

25 adolescent girls with iron deficiency anaemia as study group and 25 age- matched normal adolescent girls as control group were studied. Cardiac autonomic function was assessed by measuring heart rate variability and serum ferritin level was assessed by ELISA method. HRV was assessed by frequency domain method.

Results

Results of the study showed that the indices of heart rate variability did not differ statistically between the groups.Further, there was no significant correlation between the serum ferritin and indices of heart rate variability. Study concludes that iron deficiency anemia does not have impact on cardiac ANS activity as measured by HRV among girls of adolescent age group.

Conclusions

Findings of present study indicate that iron deficiency anemia does not have impact on cardiac autonomic nervous activity as measured by HRV among girls of adolescent age group. Further, follow up studies as well as assessment of cardiac autonomic activity in response to the exercise might provide better understanding of alteration of cardiac autonomic activity in iron deficiency anemia.

Key Words: HRV, anaemia, autonomic activity, adolescent girls

Correlation of Clinical and Pathological TNM Staging in Breast Carcinoma

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Introduction

Of more than 76 putative breast cancer prognostic factors, staging is important in evaluation of tumour. Clinical staging and pathologic staging do not always correlate yet pathologic stands out for determination of type of treatment. Breast carcinoma is classified into four stages; each stage identifies a group of tumours that have approximately similar prognosis. The stage of carcinoma alone or the stage incorporated into a prognostic index is an important predictor of survival. Aims: To assess clinical TNM stage (including evaluation of size, mobility, skin changes of the primary tumour, size, mobility of regional lymph nodes, and any evidence of distant metastases) and assess the pathologic TNM stage (by examination of tissue specimen from the primary tumour, axillary nodes, and other distant sites) of the breast carcinoma and evaluate the correlation of cTNM and pTNM staging of breast carcinoma.

Materials and Methods

This is a comparative study of a retrospective cohort of breast cancers registered during the period January 1, 2008 to December 31, 2010 in the Department of Pathology at Chettinad Hospital and Research Institute, Chennai. Study population was 113 breast cancer subjects. The following information regarding cancer site, cancer characteristics, stage of cancer at diagnosis, nodal disease status, were obtained from case records.

Results

Out of 113 subjects, clinical TNM staging were found to be stage II(43.4%), stage III(36.3%), stage IV(18.6%) and stage I(1.8%). Among 113 subjects, only 95 had all the pathological data. Pathological TNM staging of those subjects were found to be stage II(45.3%), stage III(28.4%), stage IV(17.9%) and stage I(5.3%). The TNM stage (classified stage I and II) were called as early breast cancer while TNM stage III and IV were called as advanced breast cancer. There was a low concordance rate among the clinical and pathological staging: only 73% of the clinical early breast carcinoma were pathological early breast carcinoma while 81.9% of the cTNM advanced breast cancer, were confirmed as pTNM advanced breast cancer pathologically

Conclusions

Pathological grouping outnumbered the advanced breast

carcinoma in contrast to clinical group staging possibly due to subjective variation in assessment of nodal status and clinical size of lesion as compared to the definitive documentation of the nodal involvement by tumour cells and accurate measurement of dimensions of the breast cancer by a graded scale. Similarly low concordance possibly due to the over-diagnosis of skin involvement clinically as compared to actual skin involvement by malignant cells determined microscopically. Hence the clinicians must report the clinical signs of breast cancers with a high degree of caution.

Key Words: Breast carcinoma, TNM staging, classification, nodal grading, metastasis

Comparison of Haematological Parameters in Crisis and Steady State in Patients of Sickle Cell Anaemia and Trait

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Introduction

Sickle cell disease is characterised by severe haemolytic anaemia, chronic organ system damage and decrease in life expectancy. Sickle cell anaemia is the homozygous state and sickle cell trait is the heterozygous state for the HbS gene. Aims: This study was carried out to compare haematological parameters in patients of sickle cell anemia in crisis and steady state to determine if they can predict the onset of crises.

Materials and Methods

85 cases with AS and SS pattern on haemoglobin electrophoresis were enrolled. The haematological parameters in both groups were compared.

Results

67 patients had trait (AS) while, 18 had sickle cell disease (SS). 27 (31.8%) cases presented with some form of crisis, while 58 (68.2%) were in the steady state. 13 (72.2%) SS patients and 14 AS patients were in crisis. Hemoglobin, red cell counts and hematocrit of patients in crisis were significantly lower than those in steady state. Patients in vaso-occlusive crisis showed significantly higher number of granulocytes, platelets and platelet distribution width compared to patients in aplastic or haemolytic crisis. Total leukocyte and platelet counts of SS patients in crisis were significantly higher than those in steady state. Platelet distribution width of AS patients in crisis were significantly higher than those in steady state.

Conclusions

Haematological parameters cannot be used reliably to distinguish onset of a crisis in patients of sickle cell disease. However knowledge of baseline WBC and platelet counts can help in predicting severity and onset of vaso-occlusive crisis.

Key Words: Haematological parameters cannot be used reliably to distinguish onset of a crisis in patients of sickle cell disease.

Comparison of Lipid Profile in Smokers and Non-smokers

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Introduction

Smoking is considered the single most important risk factor for coronary artery disease and cerebrovascular disease, mainly through its effect on accelerating atherosclerosis. With increasing incidence of cerebrovascular and coronary artery disease in smokers we compared the changes in lipid profile among smokers and non-smokers. Aims: To compare the serum cholesterol, serum triglycerides, low density lipoproteins (LDL), high density lipoproteins (HDL) and very low density lipoproteins (VLDL) levels in smokers and non-smokers with relation to intensity and duration of smoking.

Materials and Methods

Present study was carried out on 45 male smokers and 15 male non-smokers between age groups of 20 and 65 years. An ECG was done in all the subjects as a baseline investigation for normal cardiac function. Venous blood samples were obtained after overnight fasting for blood lipids. The samples were evaluated by using CHOD PAP method (Enzymatic method) and GPO PAP method.

Results

Lipid profile in the groups of smokers with relation to intensity and duration of smoking was compared to non-smokers. Mean values of serum lipids in smokers and non-smokers; Total cholesterol: In smokers 229+/-64.44 and non-smokers 133+/-11.15 (p value < 0.001); Triglycerides : In smokers 186+/-78.68 and non-smokers 87.60+/-24.20 (p value > 0.01); LDL : In smokers 147.27+/-59.63 and non-smokers 89.36+/-16.37 (p value < 0.01). HDL : In smokers 31.40+/-6.67 and non-smokers 48.47+/-6.88 (p value < 0.001). VLDL : In smokers 37.87+/-17.42 and non-smokers 17.72+/-5.50 (p value > 0.05).

Conclusions

The study revealed that smoking increased the serum total cholesterol, triglycerides, LDL and VLDL and decreased HDL levels in all groups of smokers when compared to non-smokers. Elevation was directly proportional to duration of smoking. Hence, the study outlines a significant relationship between tobacco smoking and altered lipid profile.

Key Words: Smokers, non-smokers, cholesterol, LDL, HDL

Comparative Study of Three Different Methods for Rapid Diagnosis of P. Falciparum and P. Vivax Malaria

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Introduction

Rapid diagnosis is prerequisite for effective treatment and reducing mortality and morbidity of malaria. This study was undertaken to compare the efficacy of various rapid methods viz QBC technique, antigen detection as compared to peripheral smear examination for rapid diagnosis of P. vivax and P. falciparum malaria. Aims: 1. Screening of malaria parasite by a) Conventional microscopy b) QBC c) HRP-2 and pLDH assay. 2. To compare the efficacy of peripheral blood examination, QBC and HRP-2 and pLDH assay in the diagnosis of malaria.

Materials and Methods

A total of 137 samples were collected from patients presenting with symptoms of malaria. Specimen were processed by preparing thick and thin smears and staining with Leishman's stain. QBC examination was done by ordinary microscope with paralens attachment and antigen detection (HRP-2 and pLDH assay) using commercial available kits.

Results

Of the 137 samples collected, total number of positive samples were 30 by all the three methods. 19 samples (P. vivax 16 and P. falciparum 03) were positive by peripheral smears study. 28 samples (P. vivax-25, P. falciparum-03) were positive by QBC. Antigen detection was positive in 21 (P. vivax-18, P. falciparum-05) samples.

Conclusions

Taking conventional microscopy as a reference standard, QBC showed a higher sensitivity. It can be used to detect low levels of parasitemia easily and rapidly. Antigen detection assay proved more sensitive at higher levels of parasitemia

Key Words: Malaria study

Comparative Study of Stress Levels amongst General Practitioners and Specialists and its Correlation with Common Stressors

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Introduction

Stress is a reaction people have when excessive pressure or demands are placed upon them, and arises when an individual believes they are unable to cope. Aims: 1) To study the stress levels amongst medical general practitioners and specialists using the Likert scale and questionnaires for symptomatology. 2) Study the absence and presence of common stressors amongst general practitioners and specialists. 3) Compare levels of stress between general practitioners and specialists. 4) Correlate common stressors and levels of stress. 5) To suggest measures to reduce stress.

Materials and Methods

This cross-sectional type of study included 30 doctors, 15 general practitioners, 15 specialists. After duly obtaining consent three questionnaires were administered 1. Likert scale for the level of stress. 2 Symptomatology questionnaire. 3 Stressors questionnaire. The data so obtained was analysed using unpaired t-test and other statistical methods as was appropriate

Results

Using the Likert scale the mean stress level among specialists was found to be 15.8 and 13.47 among specialist. Using unpaired T-test the P-value equals 0.0119. By conventional criteria this difference is considered to be statistically significant. Using the stressors questionnaire the mean among specialists was 56.53 (common stressors included decision stressor, chemical stressors i.e smoking, alcohol, social stressors and physical stressors), among general practitioners was found to be 44.87 (common stressors included work and commuting stressors, social stressors ranked second). Using unpaired t-test

the p-value equals 0.001. By conventional criteria this difference is considered to be statistically significant. using the stressors scale managerial stressors mainly those associated with dealing with the beaurocracy, and lack of ability to perform research in the hospitals that they worked in affected them most. with regards to symptomatology scale common symptoms in specialists and general practitioners were found to be uniquely different. The occurrence of symptoms was higher in specialists correlating with level of stress

Conclusions

Stress is an important factor in determining the health and job performance. As observed by this study is significantly prevalent in the sample of doctors interviewed. The study has also showed that the levels of stress in specialists are higher than general practitioners. Hence measures should be taken to incorporate stress management as a part of curriculum at the MBBS levels to help doctors cope with stress and its adverse effects.

Key Words: Stress, stressors, general practitioners, specialists

Awareness & Socio economic Impact of Malaria among Construction Workers - A Cross Sectional Study in Coastal Karnataka

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Introduction

According to WHO 2005, 3.2 billion people live in areas at risk of malaria which is regarded as its Number 1 Priority Topical Disease. Malaria is endemic in Mangalore. The sudden spurt of constructional activities in Mangalore over the past 15 years has attracted labourers from other malaria endemic areas of India, thus bringing in different strains of malarial parasites and non immune population, ultimately favouring high malarial transmission. Aims: The present study was undertaken to find out the awareness of aetiology and prevention of malaria amongst construction workers in Mangalore.

Materials and Methods

A cross sectional study was conducted at ten construction sites in Mangalore over a period of 15 days. Pre-tested semi structured questionnaire was administered to 200 construction workers. Data was analysed using SPSS Version 11.0. Statistical test chi square was done and $p < 0.05$ was taken as statistically

Results

Among the construction workers interviewed, 51.8% of the workers had wrong presumptions that malaria is caused due to drinking cold water, garbage, living in unhygienic places, and religious beliefs. 8.7% (n=51) were unaware of the manifestations of malaria. 21% (n=42) were illiterate, therefore suggesting that illiteracy was a major factor for low awareness of malaria. 85% of the subjects were aware that the most common places for breeding of mosquitoes were stagnant water and garbage. 38% of the construction workers spent more than Rs 1000 for treatment of malaria.

Conclusions

Construction workers need to be educated about the cause and prevention of malaria. Early medical intervention will help in

preventing the complications of malaria.

Key Words: Malaria, awareness, socioeconomic, construction workers, Mangalore.

Comparative Evaluation of Microleakage of bisGMA and Silorane Resin based Cured with Quartz-Tungsten-Halogen and Light Emitting Diode Curing Light

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Introduction

Microleakage refers to the clinically undetectable passage of bacteria, fluids, molecules or ions between a cavity wall and the restorative material. As several studies have shown, the pulpal response to restorative materials is related to the degree of microleakage. Aims: a) To assess the microleakage of newer Silorane based composite P-90 (3M/ESPE, St. Paul, MN, USA), and compare it with a bis-GMA based composite Z-100 (3M/ESPE, St. Paul, MN, USA), in class II restorations. b) To assess the effect of using Light Emitting Diode (LED) and Quartz Tungsten Halogen (QTH) curing units on the microleakage of P-90 and Z-100.

Materials and Methods

Using a sample size of 80 permanent intact human molars, Class II mesio-occlusal cavities were prepared with the occlusal dimension of the cavity preparation being 5 mm x 3 mm, and the cervical limit of the proximal box stopped 1 mm below the cemento-enamel junction. The width of the gingival seat was 1 mm and the height of the axial wall was 2 mm. 20 teeth were filled with Z-100 and cured with LED, while another 20 were filled with Z-100 and cured with QTH. P-90 was used to restore the remaining 40 teeth, half of which were cured using LED and the other half using QTH. All the samples were then immersed in 0.5% Rhodamine dye.

Results

Microleakage scores were evaluated by the Chi-square test using the SPSS Version 16.0 for Windows. The score of microleakage with Z-100 was statistically significant and higher than that seen with P-90 ($p < 0.05$). Also, microleakage was significantly greater when QTH was used, than when LED was employed. As a result of the high polymerisation shrinkage of Z-100, the preparation walls move inward, increasing the residual stress in the tooth. For siloranes, flexure of the dental tissues occurs at a lower level. The incremental filling technique was used for both the resin based composites, as it reduces stress at the restoration interface. In this study, a dye penetration technique has been used for microleakage

Conclusions

a) The microleakage with P-90 is less as compared to Z-100. b) LED curing light is better than QTH light for reducing microleakage.

Key Words: Microleakage, bis-GMA and Silorane resin, QTH and LED curing lights

A Study Pattern of Snoring Habits Among Medical Students

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Contact

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Introduction

Snoring can potentially impair lifestyle and is associated with late cardiopulmonary complications. The possibility of early detection and timely intervention during adolescence prompted us to conduct this study. Aims: To study the pattern of snoring habits and associated risk factors among medical students.

Materials and Methods

A single centre prospective cross-sectional study was conducted in 600 undergraduate medical students of CSMMU, Lucknow aged 18-25 yrs and were interviewed on the basis of Berlin Questionnaire along with their room-partners describing their snoring habits. Day time sleepiness was also assessed by Epworth Sleepiness Scale (ESS). Risk factors like smoking, alcohol intake, tobacco chewing, neck size and obesity were also evaluated. The collected data was subjected to statistical analysis (Variables with p-value < 0.05 were considered to be significant).

Results

Out of the 600 subjects, 548 (91.33%) responded which included 392 (71.5%) males and 156 (28.5%) females. Mean age of the study population was 21.7±1.8 years. Mean nocturnal sleeping hours, neck size, Body Mass Index (BMI) and ESS score of the subjects were 7.3 ± 1.1, 13.9±1.2 inch, 21.9±2.5kg/m² and 7.2±2.9 respectively. Among 548 students, 97(17.7%) subjects were found to be snorers while 66(12.1%) didn't know about their snoring habits. Among 97 snorers, 16 (16.5%) were "loud snorers", 19 (19.6%) were "habitual snorers", 39 (40.2%) bothered their partners and 5 (5.2%) had more than 3-4 breathing pauses per week during their sleep. Daytime sleepiness was present in 63 (11.5%) students. Clinically significant form of Sleep Disordered Breathing (Habitual snoring, ESS score ≥ 11 and BMI ≥ 25kg/m²) was suspected in 4 (0.7%) students. Obesity, large neck size, male sex and smoking were found to be significant risk factors for snoring (p

Conclusions

The present study emphasizes that prevalence of snoring among medical students is high. Though clinically significant form of SDB was uncommon, its possibility cannot be underestimated. There is need of further studies to establish the risk factors for snoring among adolescents and to lay emphasis on opportunities for intervention of related complications.

Key Words: Snoring, daytime sleepiness, risk factors, sleep disordered breathing

Colposcopy for Evaluation of Abnormal Cervices

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Introduction

Colposcopy is a medical diagnostic procedure to examine a magnified cervix under illumination to detect abnormalities in the stromal structure and vasculature. It is usually done for : Abnormal PAP smears, clinically suspicious cervix with history of contact bleeding despite a negative smear. A biopsy can be taken if any abnormality is detected during colposcopy. Aims: To evaluate the effectiveness of colposcopy in an abnormal looking cervix.

Materials and Methods

Colposcopy findings of 130 patients over a period of 1 year were collected. Materials used were Colposcope, bivalve forceps, endocervical curettes and specum. Colposcopy was done as an outpatient procedure without anesthesia. The patient is placed in the lithotomy position. After cleaning and inspecting the cervix, it is washed with normal saline. The cervix is examined at low magnification. Abnormal vascular patterns are seen using the green filter. Then 3-5% acetic acid is applied to accentuate atypical areas. Presence of any acetowhite areas is noted. Next the cervix is painted with Lugol's iodine. Unstained areas are abnormal and are biopsied under colposcopic guidance. Finally the endocervix and vagina are evaluated.

Results

Out of the 130 cases studied, 22 patients had acetowhite areas, 9 had punctations and 1 had mosaic pattern. Erosion was seen in 83 cases. Colposcopy guided biopsy confirmed that 3 patients had cervical carcinoma and 1 patient had carcinoma in situ.

Conclusions

Colposcopy is an excellent tool to evaluate an abnormal cervix and to detect abnormalities whether it be malignant or pre-malignant lesions.

Key Words: Colposcopy, abnormal cervix, biopsy

Clinico-serological Co-relation in Clinically Suspected Cases of Dengue Fever

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Introduction

Dengue fever, an arthropod-borne infection can occur in any of the following three types: (1) 'Classical' dengue fever. (2) Dengue haemorrhagic fever without shock. (3) Dengue haemorrhagic fever with shock. The use of various serological tests helps in early diagnosis of the disease and thus helps in preventing further complications. Aims: 1. To evaluate the utility of serodiagnosis of dengue virus infection and correlate the results with clinical and laboratory profile. 2. To categorise the infection as primary and secondary. 3. Comparison of efficacy of the Rapid vis-à-vis ELISA tests use

Materials and Methods

It's a prospective comparative study. 55 sera samples were studied using •Rapid Immunochromatographic Test for(1)IgM

Antibody, (2)IgG Antibody, (3)NS1 Antigen] • PanBio Dengue IgM Capture ELISA, •PanBio Dengue IgG Capture ELISA

Results

The major clinical findings in the reported cases were fever, thrombocytopenia, severe headache and body ache. In case of the Rapid Immunochromatography Test, 19 samples were positive, 10 were positive for IgM antibody only, 16 were positive for IgM and IgG antibodies while 3 were positive for NS1 antigen. Of the 22 sera, which gave positive results with IgM/IgG Capture ELISA, IgM antibodies only were detected in 16 cases and both IgM and IgG antibodies were detected in 7 cases. Secondary dengue infections were seen in 5 cases. The sensitivity of the Rapid Tests used for IgG (66.66%) and IgM (65%) antibody detection is low which indicates that a Capture ELISA is necessary to confirm the diagnosis of Dengue. A high specificity of the Rapid Tests used for IgG (93.75%) and IgM (93.5%) anti body indicates that the test has recognised a high percentage of all actual negatives.

Conclusions

A final confirmation by Capture ELISA would be suitable in case of diagnosis of Dengue because of the low sensitivity shown by the Rapid Tests.

Key Words: Dengue, comparative, sensitivity, diagnosis

Clinical Profile Of Mononeuropathy Multiplex - A Case Series

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Introduction

Mononeuropathy multiplex is a clinical syndrome of diverse aetiology characterised by simultaneous/sequential asymmetric damage to multiple non-contiguous nerves. Because of the myriad aetiologies, emphasis is placed on detection of treatable causes. Aims: We aimed to study the various clinical presentations, aetiologies and outcomes in patients presenting with mononeuropathy multiplex.

Materials and Methods

We conducted a retrospective study from the records of patients admitted in our hospital from January 2005 to December 2009 with a diagnosis of mononeuropathy multiplex. The diagnosis was confirmed by nerve conduction studies (NCS). The aetiology was established by nerve biopsy, immunological and special investigations as indicated.

Results

Forty-one cases were studied of which 26 (63%) were males and 15 (36%) females. Sixteen (39%) patients had an acute stepwise (<four weeks) and nineteen (46%) patients a chronic insidious (>eight weeks) temporal evolution at presentation. Twenty-nine (70%) patients had both sensori-motor symptoms whereas twelve (29%) had only sensory symptoms. Painful dysaesthesias were presenting complaints in thirty-two (78%) patients. Mononeuropathy multiplex developed de novo in thirty-two (78%) patients. Diabetes and rheumatoid arthritis were the most commonly encountered comorbidities. Involvement of both upper and lower limb nerves was noted in nineteen (46%) patients with peroneal, tibial, median and ulnar the commonest nerves afflicted. NCS showed asymmetric nerve involvement in all cases with axonal pattern in thirty-five

(85%). Most common aetiological diagnosis were nonsystemic vasculitis in eleven (26%), systemic vasculitis in eight (19%), leprosy in seven (17%) and asymmetrical diabetic neuropathy in three (7%). Aetiology was not established despite extensive investigations in five (12%). Significant improvement in deficits was seen in patients treated for leprosy, nonsystemic vasculitis and diabetes.

Conclusions

In our study, mononeuropathy multiplex was seen as a de novo presentation or secondary to a systemic illness like collagen vascular disease, diabetes. Painful asymmetrical involvement of sensory- motor nerves was the commonest presentation. Meticulous clinical examination and NCS are useful in detecting asymmetrical affliction of nerves in patients with coalescing mononeuropathy multiplex. Vasculitis, leprosy, asymmetrical diabetic neuropathies were the commonest aetiologies in our study and portend a good prognosis if treated early.

Key Words: Mononeuropathy multiplex, vasculitis

Clinical Profile of Hepatitis B in Children in Western India

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Introduction

Hepatitis B infection is the predominant cause of hepatocellular carcinoma in India. The carrier rate of Hepatitis B in India is reported as 4.7%. Some studies conducted on pediatric populations have revealed the prevalence of Hepatitis B as 2.1-7.24%. Aims: To establish the prevalence and clinical profile of Hepatitis B in the pediatric population of western India.

Materials and Methods

A retrospective study was carried out and data of 452 patients presenting to the pediatric liver clinic between May 2005 and September 2009 was analysed. Thirty-eight of the 452 patients were detected to be Hepatitis B surface Antigen (HBsAg) positive and were included in the study. Detailed history and clinical examination were carried out in all patients. Clinical and laboratory features of all patients were noted and factors associated with clinical presentation were analysed statistically. Patients were classified as symptomatic or asymptomatic based on presentation.

Results

The prevalence of Hepatitis B was 8.4%. Twenty-five (65%) patients were asymptomatic on presentation. Common clinical features were hepatomegaly in 17 (44.7%) patients, jaundice in 10 (26.3%) patients, fever in 6 (15.8%) and splenomegaly in 6 (15.8%) patients. Seventeen (73.9%) patients who were asymptomatic and none of the symptomatic patients had a previous blood transfusion ($p=0.001$). Two (18.18%) patients in each group had an HBsAg positive family member. Elevated bilirubin was found in 1(4.16%) asymptomatic and 6(60%) symptomatic patients ($p=0.0009$) with a mean of 2.5 ± 4.9 mg/dl across both groups. SGOT levels were elevated in 16(64%) asymptomatic patients and 9(100%) symptomatic cases ($p=0.03$) (mean 238.2 ± 398.3 IU/L). However no significant correlation was found between elevated SGPT and either group ($p=0.07$).

Conclusions

Prevalence of Hepatitis B is high in our population. Most of the patients are asymptomatic on presentation and over 70% of them have a blood transfusion as a predisposing factor. Thus, a more stringent screening of blood products prior to transfusion and universal immunisation with Hepatitis B vaccine should be implemented strictly.

Key Words: Hepatitis, children, Western India

Causative Variants in an Age Old Disease: Does the Phenotype Vary?

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Introduction

Multi-speciality facilities are the order of the day. However, printed pages and long hours of study can make the anatomy of human body explicitly understood but what about its changing physiology? Increasing longevity poses a challenge to medicos ahead. I have chosen emerging trends of causative variants for COPD (Chronic Obstructive Pulmonary Disease) for my study. Globally this disease is accepted as a major cause of morbidity and mortality. Tobacco smoking has been associated with risk of COPD since the 1950s. However, emerging evidence suggests, especially in developing countries, that other risk factors are important too. Like smoke from biomass fuels, occupational exposure to dust, second hand exposure to tobacco smoke, etc. The use of tobacco products is increasing worldwide with a shift of the epidemic to the developing world. The relative burden of each of these risk factors may vary geographically. Aims: • To know the interaction of various risk factors for COPD and clinical variations, if any, in presentation of patient • To compare effects of active smoking on FEV1/FVC in farmers and urban dwellers. • To create awareness towards role of second hand exposure to tobacco smoke • To contribute towards resolutions of world health assembly on "Tobacco and Health" – 1986.

Materials and Methods

The location of my college gives me a chance to interact with patients from rural and urban setup. A prospective study will be done with the help of a questionnaire and pulmonary function tests. The bold protocol will be followed as relevant.

Results

ATS (American Thoracic Society) in 2003 showed 15% cases were attributable to occupation. Recent studies link farming work to non-reversible airways obstruction, independent of smoking. This aspect gains importance in our country, where relatively greater workforce is engaged in agriculture. Also there remains inconclusive evidence regarding passive smoking.

Conclusions

Clearly further research is needed to elucidate phenotypes of COPD. Questions regarding true burden of non-smoking COPD in different countries and treatment of COPD due to reasons other than smoking need to be addressed.

Key Words: COPD, chronic smoking, farming, passive smoking

Cardiovascular Morbidities In COPD

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Introduction

Chronic Obstructive Pulmonary Disease (COPD) is an important cause of mortality and morbidity worldwide. Though there are a number of studies on the co-existence of heart disease and COPD in patients reporting to Emergency Medicine Department globally, their relationship has not been adequately described in the general population. There is hence lack of awareness and many COPD patients are not concurrently evaluated for heart disease and their mortality is often termed as acute exacerbation. Aims: The aim of this project is to present our findings for the benefit of attendees for future clinical application.

Materials and Methods

Patients (male/female) reporting to the Department of Pulmonary Medicine with cough, dyspnoea and/or chest pain were evaluated. The diagnosis of COPD was established by spirometry as per the Global initiative for Obstructive Lung Diseases (GOLD) guidelines and relevant cardiovascular investigations like electrocardiography and chest radiography. Computed tomography of the chest was done wherever relevant. Echocardiography was done in patients suspected to have chamber hypertrophy, myocardial infarction (MI) or pulmonary artery hypertension (PAH). Patients with pre-existing cardiovascular disease before smoking habit initiation were excluded.

Results

In all, 110 patients, 108 males and 2 females were included in the present study. Majority of them were heavy smokers. COPD associated with passive smoking was present in one. 7 developed COPD due to occupational dust, fumes, chemicals and/or vehicle smoke. Majority were aged 60 years and above. Cardiovascular involvement was observed in 51 patients (46.36%). Hypertension=22 (20%); Ischaemic Heart Disease=14 (12.73%); Chamber Hypertrophy [Right=6 (5.45%), Left=3 (2.73%)]; Bundle Branch Block [Right=2 (1.82%), Left=1 (0.91%)]; Peripheral Vascular Disease=2 (1.82%). COPD and cardiac events often present with similar symptoms but recognition of each entity is significant and management strategy different. PAH could not be confirmed by echocardiography in view of significant emphysema.

Conclusions

CVD is a significant comorbidity in elderly patients with COPD. Concurrent evaluation and therapy for both cardiac and pulmonary diseases are mandatory to reduce morbidity, mortality and improve the quality of life.

Key Words: Cardiovascular diseases, COPD comorbidities, spirometry, smoking

Blood Donation - Myths and Misconcepts

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Introduction

When we donate blood, we save a life. Unfortunately, only 5 % of eligible people donate blood. Nowadays, the demand for blood has risen tremendously because of an increase in number of major surgeries and trauma cases. Hence, it is important to have adequate stock of blood bags. Aims: This prospective study was conducted to find out what % of population donates blood, to identify the misconceptions concerning blood donation and to educate people regarding its importance.

Materials and Methods

150 subjects (18-60 yrs) were interviewed in Nair Hospital, Mumbai using a semi structural questionnaire. The questionnaire was designed to find out the % of people who have donated/ not donated blood, their misconceptions, knowledge of blood components and whether there had been motivations (media, camps) in the past to encourage donation. The data was formatted in MS Excel and analysed using SPSS.

Results

Only 33.33 % of subjects interviewed had donated blood who were predominantly males (90 %). Most of the females were unaware and some were prevented by their husbands from donating blood. 44.7 % of subjects think there is 'loss of vitality' after donating and 'one cannot resume daily activities'. 46 % of subjects cited -they 'never thought of donating blood'. 42.7 % subjects believe that safety measures are not used in Govt. Hospitals. Few subjects feared that the procedure is painful and they would contract infections like HIV. 98.66% of subjects interviewed were unaware of blood components and component therapy. Education and place of employment played a major role in motivating people to donate blood. The results found are comparable with the study - Shenga N, Pal R, Sengupta S. Behavior disparities towards blood donation in Sikkim, India. Asian J Transfus Sci. 2008 Jul; 2(2): 56-60.

Conclusions

A high % (66.67 %) of subjects interviewed were non donors. Hence, it is essential that the Govt. along with NGO's should motivate people especially the youth and females. Voluntary donations should be encouraged while replacement and professional donations should be reduced. We should aim at keeping all blood banks fully stocked.

Key Words: Donation, misconcepts, motivation, education

Bacteriological Study of Diabetic Foot

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Introduction

Infections and gangrene of the lower extremities are the most common lesions requiring hospitalisation in diabetics. Complications associated with the development of infections in diabetic foot are the main cause of morbidity, lower limb amputations and mortality. Bacterial infections of diabetic foot are often polymicrobial. The present study was undertaken to determine the bacteriology of diabetic foot. Aims: To study the spectrum of aerobic bacteria causing diabetic foot and also to determine the antibiotic sensitivity pattern of the isolates.

Materials and Methods

50 cases of clinically diagnosed diabetic foot were taken. Cases

with grade 0/limb amputations and patients on antibiotic therapy were not included in the study. Pus sample was collected from the depth of the ulcer using sterile swabs following aseptic precaution. Sample was inoculated on Blood agar and Mac Conkey agar and incubated at 37 degree Celsius. Further standard biochemical reactions were put up to identify the isolates. Antibiogram was put up on Muller-Hinton agar by Kerby-Bauer disc diffusion technique as per standard procedure.

Results

50 cases were included in the present study, 38 were males and 12 females. There were total 64 isolates. 14 cases were of polymicrobial aetiology. The most commonly isolated aerobic bacteria were Pseudomonas spp (23), Klebsiella spp (9), Proteus spp (9). Most of the isolates were sensitive to Imipenem. Among the gram positive bacteria common isolate obtained was Staphylococcus aureus (6), out of which five were sensitive to cefoxitin and one was resistant to it.

Conclusions

Diabetic foot usually leads to amputation due to non healing of wounds so, early diagnosis and proper choice of antimicrobials is very important. Diabetic foot infections are usually polymicrobial and hence a combination of antibiotics have to be used.

Key Words: Diabetic foot, aerobic bacteria, antibiotic sensitivity.

Bacterial Vaginosis- A Clinicocytological Study

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Introduction

Bacterial vaginosis is the most frequent cause of vaginitis and cervicitis during the childbearing age. It is characterised by an overgrowth of anaerobic organisms primarily Gardnerella vaginalis. It is often asymptomatic but has been associated with episiotomy infections in pregnant women and pre term delivery of low birth weight infants. There is also evidence to suggest its relationship with infertility and Cervical Intraepithelial Neoplasia (CIN). Aims: To evaluate and correlate the clinical and cytological features of bacterial vaginosis in women attending the Gynec clinic at Kasturba Medical College hospital in Mangalore.

Materials and Methods

Fifty positive cases of bacterial vaginosis were identified from amongst one thousand women with inflammatory smears, from hospital records between March 2008 and April 2010. Following this the clinical data and cytological findings of each case was recorded. Pap smears were used to study the vaginal cytology.

Results

Of the thousand inflammatory smears, fifty smears were considered positive for Bacterial vaginosis. Further investigations into the clinical data of these fifty patients revealed the following results: The age range was from 23yrs-78 yrs. Maximum number of women belonged to the age group 30-39 years making up 38% of the total study population. The chief complaint of majority of the women (54%) was white

discharge per vaginum(WDPV). Out of the 50 cases,three cases of primary infertility were observed as was one case of HSIL (High grade Squamous Intraepithelial Lesion). Cytological evaluation of Pap Smears revealed the presence of Clue cells(squamous epithelial cells,covered with coccobacilli) producing a characteristic 'dirty' appearance. The smears showed scanty inflammatory infiltrate in the background.

Conclusions

Bacterial vaginosis is a common infection of the female reproductive tract during child bearing age. The shift in vaginal flora has been associated with infections in pregnant women and pre term delivery of low birth weight infants.Pap smear evaluation is quite accurate to detect the shift in flora. It is especially useful in the developing world, where resources are low and the test can be performed at a low cost. A healthy offspring is a boon in this era of nuclear families.

Key Words: Bacterial vaginosis, cytology , infertility, white discharge per vaginum

Comparative Evaluation of the Beneficial Effects Of Phenytoin In Diabetic Ulcers

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Introduction

India is the diabetic capital of the world with 41 million Indians suffering form it .Diabetic foot lesions are a major medical, social, and economic problem and are the leading cause of hospitalisation and amputation. The quest for better wound-healing agents is perhaps one of the oldest challenges for medical practice. Phenytoin is an antiseizure drug which is cheap, easy to use and readily available for medical practice. Phenytoin has been shown to effectively relieve pain, clear discharge and enhance the formation of granulation tissue thereby promoting healing. Aims: To compare the efficacy of topical phenytoin with conventional wound dressings in terms of, days required for healing, rate of granulation tissue formation, quality of graft bed, skin graft up take and its effect on bacterial load of diabetic ulcers.

Materials and Methods

A sample of 50 patients with diabetic ulcer were selected using purposive sampling technique and randomly assigned into treatment group (n=25) and control group (n=25). phenytoin soaked suspension was delivered at 20mg/cm² TBSA in the treatment group whereas 5%w/v povidone-iodine solution dressing was done in control group twice daily for 14 days. Wound culture taken at the start and on the 14th day of treatment. The patients were then subjected to split thickness skin grafting and later assessed for skin graft up take, total no of days of hospitalisation and side effects.

Results

Phenytoin group required significantly (P<0.005) less days for healing (27.24) in comparison to betadine group (30.24). Phenytoin (97.67%) had a significantly (P<0.001) better percentage of granulation tissue coverage post treatment than Betadine (91.58%) and the mean graft uptake in phenytoin group (98.7%) was significantly better (P<0.001) than that of betadine group (95.57%).Phenytoin had a better antibacterial

efficacy with 92% negative culture vs 76% in betadine

Conclusions

The results suggest that phenytoin is better than conventional dressing (Betadine) in terms of cost, rate of granulation tissue, quality of graft bed, skin graft uptake and survival. Easy availability and applicability makes it a very potential method of treating diabetic ulcers.

Key Words: Phenytoin,betadine, diabetic ulcer

To Assess Grandmothers' Knowledge of Breastfeeding Practices and to Assess their Influence on These Practices

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Introduction

Breastfeeding offers many benefits to both the mother and the child. The grandmothers/ elders in the family are constant companions of the newly delivered mother, especially in Indian setting and they are often consulted by the mother for advice about breastfeeding practices. These 'influencers' may have a positive/negative influence depending on their knowledge /attitudes. It is thus a matter which requires thorough probing.Aims: To assess: 1. Beliefs of the grandmother regarding- Initiation & duration of breastfeeding - prelacteals - Colostrum - Starting complementary food - Benefits of breastfeeding; 2. Her role during - Problems in breastfeeding - Breastfeeding during illness in mother/ baby; 3. Her influence on breastfeeding mother.

Materials and Methods

The study was carried out in Naigaon community in Mumbai. This is an observational study on grandmothers with grandchildren under the age of 5 ,who reside with family. 136 grandmothers were personally interviewed and questions were asked in local language. The data was analysed by the study team with help of excel sheets and by using appropriate statistical tests.

Results

Out of 136 respondents ,it was found that 70.6% knew about correct time of initiation,79.4% knew about correct duration of exclusive breastfeeding. A majority of 67.5% wrongly promoted initiation of water in baby's diet before 3 months. Overall knowledge about correct practices regarding colostrum, prelacteals, bottle feeding was good however knowledge gaps were shown to exist especially amongst the illiterate(proved by Chi-square test). Most respondents were unaware about benefits of breastfeeding to the mother and about problems in breastfeeding .84.6% respondents wrongly advocated stoppage of breastfeeding when mother is sick. Largely, the advice of the grandmothers was sought out by the mothers and followed by them.

Conclusions

The overall knowledge of respondents regarding correct breastfeeding practices was fairly good. Knowledge gaps were found in issues like colostrum, prelacteals, problems in breastfeeding, benefits to mother etc. In the joint family setup ,the grandmothers were definitely found to have a role in the

decisions made by the mother regarding breastfeeding practices. Thus their inclusion in promotive strategies for correct breastfeeding practices will go a long way, if done keeping in mind the illiterate and with special emphasis on the knowledge gaps.

Key Words: Grandmothers, breastfeeding practices, knowledge, influence

Accuracy of Alvarado Score in the Diagnosis of Appendicitis

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Introduction

Surgery for acute appendicitis is the most frequently performed emergency operation (10%). Life time risk of appendicectomy is 8.6% in males and 6.7% in females. A negative appendicectomy of 15-30% has been reported by most surgeons.* To reduce negative appendicectomy rate, scoring systems have been developed for the accurate diagnosis of acute appendicitis. Objective of study is to evaluate accuracy of ALVARADOS score in diagnosis of acute appendicitis in terms of sensitivity and specificity. Aims: To check the accuracy of the Alvarado score in the diagnosis of acute appendicitis by determining the sensitivity and specificity

Materials and Methods

Study was conducted from August 2010 to February 2011, during which 108 patients with right iliac fossa pain were examined. Patients were categorised into 2 groups – score ≥ 7 (60) and score ≤ 6 (48). 75 patients underwent appendicectomy, they were diagnosed with appendicitis on USG, and histopathological reports confirmed appendicitis in 72 cases. Out of the 75 operated cases, 60 had score of ≥ 7 and 15 score of ≤ 6 .

Results

Sensitivity=80.55%, Specificity=33.33, Positive Predictive value =96.66%. The diagnostic accuracy of alvarados score is thus 96.66%

Conclusions

Alvarado scoring is a reliable diagnostic tool, that can be used in the surgery opd for diagnosing cases of acute appendicitis. It is an easy, cheap and fast procedure for managing a case of right iliac fossa pain.

Key Words: Appendicitis, alvarado, right iliac fossa, tenderness

Analysis of Scientific Activity Addressing Evidence Based Medicine: A Bibliometric Study

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Introduction

Evidence-Based Medicine (EBM) is an approach of practicing

medicine with the objective to improve and evaluate patient care and help physicians make a proper diagnosis, devise the best testing method, choose best treatment and methods of disease prevention. Today the principles of EBM are now widely accepted for evaluating the quality of evidence generated by research activities for using them in the health care decision making. Aims: The aim of this study is to perform an analysis of scientific production published on the EBM from 1990 to 2010 by bibliometric indicators using ISI web of science.

Materials and Methods

A descriptive bibliometric study was used to achieve a view of scientific activity about Evidence based medicine. Data for the study was collected from the institute for scientific information (ISI) web of science database.

We search the terms "evidence based medicine" in the topic of the articles indexed in web of science and select the period of 1990 to 2010.

The specific features such as publication year, articles' language, geographical distribution, first author, main journal in this field, and institutional affiliations were retrieved from ISI and analysed. The characteristics of the papers which cited to the papers about EBM from the aspects of type and major topic also were analysed.

Results

There was an increasing rate of production of Evidence-Based Medicine and also an increasing rate of citations to these articles. Journal article was the most common and general publication type. Publications were mostly about the internal and general medicine. America had the most number of publications in this field. English was the predominant language of articles on EBM.

Conclusions

This was the first bibliometric study of EBM science, which tried to show the characteristics of papers published on this new field of science. It is concluded scientific interest to this field is rapidly increasing in recent years. From this study it could be understood that this field is still new and so will save its activity.

Key Words: Evidence-based medicine, bibliometric study, web of science, scientific activity

To Assess the Predictive Value of ca 15.3 in Diagnosis of Breast Cancer

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Introduction

Breast cancer is the most common type of cancer occurring in women. Approximately 1 woman in every 10 will develop breast cancer in her life time. Aims: To find the significance of serum levels of CA 15.3 in the breast cancer patients and normal healthy females and thereby finding out its predictive value in diagnosis of breast cancer.

Materials and Methods

Twenty five FNAC confirmed breast cancer cases and twenty five healthy age matched females entered the study conducted over two months. Blood samples were taken from cases at the time of primary diagnosis and a Biocheck CA 15.3 enzyme

immunoassay kit was used for quantitative determination of CA 15.3 concentration in serum. Cases were divided into groups on the basis of TNM staging. Means of both the control and the study group were compared and significance of difference between two was tested by unpaired t-test.

Results

The mean±SD of cases and controls were (55.04 ± 46.04u/ml) and (14.24±5.18u/ml) respectively. There was a highly significant difference between the concentration of CA 15.3 between the cases and the healthy controls with p value < 0.0001. A positive correlation of increase in CA 15.3 concentration with the increase in stage of the cancer was found. The sensitivity and specificity for diagnosis of breast cancer at a cut-off of 30u/ml was found to be 84% and 96% respectively. However the mean value of stage I disease (25±5.65u/ml) was lower than 30u/ml cut-off, which implies a decreased predictive value of stage I disease.

Conclusions

Our study concludes that CA 15.3 has a definite role in detection of advanced (stage II, III, IV) cancer with high sensitivity and specificity, but for the patients presenting with stage I disease the elevation is not high enough to make a diagnosis and specificity is also low. We suggest that in Cases presenting with abnormally high concentration of CA 15.3 the likelihood of cancer would be high, however the cases presenting with borderline levels of CA 15.3 would require further investigations.

Key Words: Breast cancer , CA 15.3 , cancer , tumour marker

Effect of Aloe Vera on Sperm Motility and Viability

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Introduction

Aloe vera also known as true or medicinal aloe is widely used in cosmetics and herbal medicine. Aloin the active ingredient in aloe vera has a widespread effect. Aloe vera has been traditionally used for the treatment of sterility in females. The modern uses of aloe vera compounds include its use in menstrual diseases, stomach pain, tonic after pregnancy, uterine diseases and female sterility(1). However, the effect of aloe compounds on male sterility is not properly known. The aim of the study was to determine the effect of crude aloe vera extract on spermatozoa in invitro samples of human semen. Aims: The aim of the study was to evaluate the effect of crude aloe vera extract on sperm motility and viability in invitro samples of semen of human subjects.

Materials and Methods

The semen was allowed to undergo natural liquification for 30 minutes and then incubated for 60 minutes after addition of crude aloe vera extract in different quantities so as to obtain different dilutions. The viability and motility of spermatozoa was determined by eosin-nigrosin staining technique and by simple microscopy and Sperm Quality Analyser (II CP). The sperm count and percentage motility of the sperms in the sample were assessed immediately after liquification at room temperature. Then crude aloe vera extract was added to the sample and incubated at 37°C and the motility and viability parameters were assessed every 30 minutes

Results

In this study, crude aloe vera extract has been found to have marked spermicidal activity and to decrease the motility of the spermatozoa significantly

Conclusions

Therefore, 1:1 dilution is the minimum amount of extract required to get complete spermicidal action at the end of 60 minutes of incubation at 37°C in invitro semen samples.

Key Words: Aloe vera, sperm motility, sperm viability, in vitro

Study of Liquid Waste Management in a Tertiary Care Hospital

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Introduction

In a hospital liquid waste is generated in various areas such the wards, O.T.'s, OPD, labs etc. Hospital effluent is known to be toxic and infectious. It is also one of the least studied aspects in biomedical waste management. A need was therefore felt to perform a liquid waste audit and to study the various practices related to liquid waste management. Aims: 1. To Study the extent of problem of Liquid Waste by doing 'Liquid Waste Audit.' 2. Study the various Methods of Handling and Treatment of Liquid Waste practiced in the different areas of the hospital. 3. To Evaluate the Liquid Waste with reference to the need for separate Effluent Treatment Plant (ETP).

Materials and Methods

A period study was carried out over 2 months to perform a liquid waste audit and to evaluate the need of an Effluent Treatment Plant (ETP). During the visits, various practices such as use of chemicals and disinfectants, the quantity in which they are utilised, the amount of water consumed and treatment of liquid waste were studied in all the 61 areas engaged in hospital related activities. The quality of effluent draining out of the hospital through 6 drains was determined by testing for parameters such as pH, BOD, COD, Oil and grease content, Total suspended solids, Chloride content and Ammonia content.

Results

It was observed that the chemicals used in different areas of the hospital were being diluted to a very great extent (dilution factor being 11,000). Also, qualitatively the sewage fell in the weak to medium category with most of the parameters well within the permissible limits as given by Maharashtra Pollution Control Board (MPCB). The effluent from the hospital drains into the public sewers which are finally drained into the terminal municipal ETP where the effluent is treated before being discharged into the sea.

Conclusions

Taking into consideration the findings of the study and also the high cost and the space needed for setting up an ETP facility, it was not found to be a practical solution.

Immediate Effect of Bhastrika Pranayama on Human Blood

Pressure and Heart Rate

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Introduction

Yogic techniques are known to improve one's overall performance and work capacity. Yoga breathing, or pranayama, is the science of breath control. The science of pranayama is based on the retention of prana called 'kumbhaka'. Among the many kinds of pranayama, Bhastrika pranayama is mainly a combination of Kapalabhati and Ujjayee. Forcible expulsion followed by slow and deep breathing is a characteristic feature of Bhastrika pranayama.

There have been many studies on yoga and its effects on physical function but with the phenomenal and ever increasing popularity of pranayama in the past few years, there is a lack of study on this particular discipline and as a result the present study has been undertaken to examine the effects of Bhastrika pranayama on the blood pressure and heart rate.

Aims: To evaluate the immediate effects of Bhastrika Pranayama on human blood pressure and heart rate.

Materials and Methods

The study was conducted on 50 healthy subjects aged between 18 to 25 years after fulfillment of inclusion and exclusion criteria. An intervention was given for five minutes in the morning between 6am to 7am. Blood pressure and heart rate were recorded before and after the intervention. Blood pressure was measured by using Sphygmomanometer and heart rate was measured by recording R-R interval (Lead II ECG) with computerised four channel polygraph. Paired 't' test was applied to obtain the statistical significance.

Results

There was a decrease in mean systolic blood pressure (SBP) from 118.24 ± 6.69 to 110 ± 8.63 mmHg and diastolic blood pressure (DBP) from 79.32 ± 4.94 to 75.76 ± 5.07 mmHg. Heart rate was increased from 70.16 ± 6.91 to 81.64 ± 6.01 beats per minute.

Pranayama may increase frequency and duration of inhibitory neural impulses by activating pulmonary stretch receptors, which brings about withdrawal of sympathetic tone in blood vessels of skeletal muscle, leading to widespread vasodilatation, thus causes decrease in peripheral resistance and thus DBP.

Conclusions

Bhastrika pranayama is found effective in decreasing BP and increasing HR immediately. Further studies should be done to understand the mechanism.

Key Words: Bhastrika Pranayama, blood pressure, heart rate

A Study on the Preference of Tubectomy over Vasectomy in a Rural Primary Health Care Centre in Alamadhi and an Urban Health Post in Sanjeevarayanpet

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Introduction

India, though one of the first countries of the world to develop a family welfare programme, is still the second most populous country in the world. Her population, already well over a billion, continues to grow and could become double the figure by the end of this century. Despite vasectomy being the more convenient, virtually painless and cheaper surgery offered by the government, tubectomy inexplicably remains the preference of the masses, accounting for 38% of the couple protection rate. Aims: This article aims to assess the preference of eligible couples for various methods of contraception and also to assess the reasons for non adoption of vasectomy over tubectomy.

Materials and Methods

A random sample of 301 persons (152 males and 149 females) from the areas of Alamadhi, Tiruvallur district and Sanjeevarayanpet, Chennai district were subjected to the prescribed questionnaire between June and September of 2009. The subjects were eligible couples of the reproductive age group, with at least one child, and some of them having adopted tubectomy already. The data was then analysed by SPSS 16.0 software.

Results

65 % of the subjects were aware of non-scalpel vasectomy, the awareness being more in urban and more in women. 91.4 % of them were not willing to adopt non-scalpel vasectomy, the major reason cited was family planning being female responsibility. Between 72-77 % of the population opted for tubectomy as their preferred method of contraception, while not even one person opted for vasectomy. Nearly 30% of the people were not even aware of the location of non-scalpel vasectomy services. The only misconception found significantly prevalent was that about postoperative hampering of earning capacity. A disquieting finding was that almost 70% of males agreed frankly that they would not consider a vasectomy in future, and 65% of study population evinced no curiosity to learn about the procedure.

Conclusions

India's gender inequality scale is tilted in favour of men, and unless they are reached, any population control programme will fail to have any noteworthy impact. Some suggestions include increasing awareness and accessibility of non-scalpel vasectomy services, and improved counselling services provided by health workers.

Key Words: Vasectomy, tubectomy, contraception

Prevalence and Awareness of Risk Factors for Cardiovascular Diseases amongst Adults over 40 Years of Age in an Urban Community

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Introduction

Cardiovascular diseases are biggest killers in the world. They are non-communicable and claim 17 million lives every year. In India, incidence of Ischaemic Heart Disease is about 9.7% in urban population and much lower in rural population. Various risk factors and predisposing conditions have been well documented and understood by health professionals but the awareness in general population remains poor. Early detection and controlling risks involved will go a long way in reducing morbidity and mortality. Aims: 1. To determine the prevalence of cardiovascular risk factors among adults >40 years in an urban community. 2. To find association of sociodemographic variables with existence of risk factors. 3. To assess awareness and attitude towards symptoms and causes of cardiovascular diseases in study population. 4. To recommend appropriate measures in future awareness campaigns.

Materials and Methods

A cross-sectional observational study. Sample size calculation using 9.7% as prevalence and 95% confidence interval is 135 subjects. Study population was randomly selected from Naigaon community of Mumbai. Consenting adults >40 years of age were interviewed and examined. A case record form - a short demographic history, BMI, blood pressure and questions to assess lifestyle, diet, addictions, awareness and attitude was duly filled for all volunteers. Data was statistically analysed and the study concluded within 2 months.

Results

Prevalence of hypertension and overweight/obese is 44.44% and 42.97%. 88.1% do not exercise regularly. 88.57% of Hypertensives belonging to Kuppuswamy Class III and ONLY 56.52% of Class II were aware they had hypertension, statistically significant. Major symptom of heart attack was pain (70.37%), unconsciousness (17.03%), sweating (6.60%), vomiting (4%) and others. Lifestyle modification is beneficial according to 67.4% while only 25.9% think salt restriction is required in hypertension. Only 29.6% and 35.55% consider sedentary lifestyle and diabetes mellitus as risk factors for Heart diseases. Awareness amongst adults under 50 years is more than amongst adults over 50 years.

Conclusions

Prevalence of risk factors is very high and comparable populations in Kolkata and Karachi. Awareness needs to be increased. Awareness is more in higher socioeconomic class but yet unsatisfactory. This highlights the need for awareness campaigns targeted towards specific populations.

Key Words: Cardiovascular prevalence awareness, hypertension

H1N1 Influenza Pneumonia - Piro Score for Predicting In-Hospital Mortality During Recent Pandemic

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Introduction

Year 2009-2010 witnessed H1N1 Influenza pandemic. It spread all over the world and posed threat to lives of people. A number of patients with severe pneumonia were admitted at our hospital with a very high mortality rate. PIRO (Predisposition, Insult, Response, Organ dysfunction) score was used previously

to assess the severity of ventilator associated pneumonia (VAP) and also community acquired pneumonia (CAP). We used a 20 point PIRO score for assessing the in-hospital mortality of H1N1 Influenza pneumonia. Aims: Primary objective: To study the factors associated with mortality in H1N1 influenza pneumonia using a 20-point PIRO score. Secondary objective: To develop a severity assessment tool for H1N1 influenza pneumonia patients.

Materials and Methods

In this retrospective study 34 consecutive patients who survived (survivors) and 34 consecutive patients who died (non survivors), who had positive throat swab for H1N1 Influenza and radiological features of pneumonia were included. Their records were reviewed thoroughly and PIRO score was applied to them. Both groups were compared for clinical characteristics, laboratory parameters and outcome. Statistical analysis was done using STATA version 10 and predictors of mortality were determined using univariate and multivariate analysis.

Results

Mean PIRO score for survivors was found to be 2.59 + 1.58 and it was 7.59 + 1.729 in non survivors with P-value 0.0000 (highly significant). Longer duration of illness, Presence of breathlessness or respiratory distress on admission and SpO₂ < 80% on admission were found to be independent predictors of mortality.

Conclusions

As the PIRO score was found to be highly significant, it can be used for predicting the in-hospital mortality in patients with H1N1 Influenza pneumonia.

Key Words: Piro score - Mortality H1N1 Influenza, Pneumonia

"Haemoglobin E Syndrome" Occurrence in Rajbanshi population - A study in Thalassaemia Control Unit of North Bengal Medical College

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Introduction

Haemoglobin E syndrome is prevalent throughout North-East India. Though clinically asymptomatic otherwise, double heterozygous states like haemoglobin E-β Thalassaemia, phenotypically simulating β-thalassaemia major, are being produced in offsprings as a result of marriage between asymptomatic haemoglobin E and β-Thalassaemia trait, preventable by systematic premarital screening. Aims: Studying the occurrence of HbE disorders. Correlating different entities within the HbE disorders with their haematological parameters. To find out a possible correlation between this disorder with the Rajbanshi ethnic group prevalent in the northern district of West Bengal.

Materials and Methods

The demographic information and blood samples of 103 patients coming to Thalassaemia Control Unit between 25th May to 25th July, 2010 were collected and tested for RBC parameters (Hb, PCV, total RBC count, MCV, MCH, MCHC, RDW) by automatic cell counter, RBC morphology studied by

Leishman stained smears and Haemoglobin variants were studied by CE-HPLC principle by Bio-Rad Variant, β thalassaemia short program.

Results

Within 103 cases, 29(28.16%) HbE trait, 13(12.62%) HbE disease, 4 (3.88%) HbE- β thalassaemia, 1 (0.97%) HbS trait, 1 (0.97%) HbS disease, 2 (1.94%) β thalassaemia trait, 1 (0.97%) β thalassaemia major and 2 (1.94%) HbS- β thalassaemia were found. Thus 53 (51.46%) cases show abnormal Hb pattern and 50 (48.54%) are normal. Out of 103 cases 51 (49.51%) belonged to the Rajbanshi's. Out of 53(51.46%) cases with abnormal Hb variants, 46(86.79%) belong to HbE and derivatives. Within these 46 cases 34 (73.91%) belong to Rajbanshi ethnic group. Rajbanshis are most important race in this study. HbE derivatives are the most important variants observed, constituting about 86.79% of the total abnormal haemoglobins. Of all Hb E derivatives 73.91% occurs in the Rajbanshis indicating a strong association between the Rajbanshis and the occurrence of HbE haemoglobinopathies.

Conclusions

HbE, the most important haemoglobin variant in the study, is most common among the Rajbanshis, the most important ethnic group observed. Systematic premarital screening is mandatory to prevent the birth of HbE- β thalassaemia or other double heterozygous states. In carrier state they are asymptomatic.

Key Words: Haemoglobin E Rajbanshi North Bengal

Breastfeeding Practices and Knowledge as per IMNCI Guidelines among Tribal and Rural Mothers of Yavatmal District, Maharashtra

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Introduction

As per recently developed child growth standards of WHO, 39% of the children below 6 months of age are underweight. The WHO and UNICEF articulated a global strategy for IYCF. The GOI adopted the culturally-acceptable IYCF guidelines, which were incorporated in the IMNCI Programme. The IMNCI strategy recommends systematic assessment of breastfeeding and emphasizes counseling of the mother on proper positioning and attachment of the infant to the breast. Aims: 1. To study breastfeeding practices among mothers. 2. To observe positioning of baby and attachment at the breast of mother while breastfeeding. 3. To study breastfeeding knowledge among mothers. 4. To study some epidemiological factors influencing breastfeeding practices.

Materials and Methods

This hospital based cross-sectional study carried out in the post-natal wards of SVN GMCH, Yavatmal. Total 371 mothers who delivered during 15th May to 15th July were interviewed and observed on second day of delivery by the trained Student Investigator using pre-tested pro forma based on the standard IMNCI breastfeeding guidelines. Data was analysed using percentage and χ^2 test with the help of STATA - 10.1 statistical software.

Results

Significantly more rural mothers, 21.8% breastfed their newborns within 30 minutes of birth than tribal mothers, 13.7% ($p < 0.05$). While breastfeeding, 23.2% and 14.3% mothers had infants body turned towards them and close to them respectively. Similarly, 13.2% and 15.9% infants had their mouth wide open and their chin touching mother's breast respectively. Majority, 83.6% tribal and 78.2% rural mothers knew correctly that no prelacteal feeds to be given to the newborn. Only correct practices of attachment and ending breastfeeding showed statistically significant increasing trend with parity of mother ($p = 0.046$ & $p = 0.001$ respectively).

Conclusions

Correct positioning of the baby and correct attachment at the breast was found only in 3.5 % and 0.8% mothers respectively, while breastfeeding. The knowledge was found to be least regarding breastfeeding frequency in 24 hours (8.9%) followed by duration of breastfeeding (13.5%). Only parity was found to significantly influence some of the breastfeeding practices. Age of mother, education of mother & age at marriage were not found to influence breastfeeding practices.

Key Words: IMNCI, breastfeeding, knowledge, practices, tribal, rural

'User Driven Health Care': Understanding the Complexity of Clinical Experience through Online 'Conversational Learning' Networks

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Introduction

It has been recently proposed that improvement of health outcomes and quality of life may be achieved by a meticulous monitoring of patient parameters that requires informational continuity utilising online learning and health education between multiple stake holders, patients, their relatives and health-care professionals; a concept that has been termed "User Driven Health Care." Conversational learning improves healthcare by utilising 'concerted experiential learning' in conversations between multiple users in a collaborative network across a Web interface. Aims: To qualitatively study the phenomenon of sharing individual's disease related information with other multiple stake holders in healthcare and determine if it is beneficial in the individual's specific as well as overall healthcare outcome and to understand the efficacy of these 'conversational learning' networks in medical education.

Materials and Methods

A qualitative approach was utilised to identify themes during data collection, rather than test predetermined hypotheses. Web-based patient data mining using manual extraction of themes (as opposed to algorithmic automated data mining) led to conceptual modeling of patient experiences of ill-health and physician's handling of their illnesses. Selected conversational learning networks were assessed and the thematic analyses of relevant content were corroborated with systematic review of literature.

Results

Student researchers/learners were introduced to online

patients in forums through detailed patient narratives that reflected their learning topic of interest (an illustrative example provided in an approach to headache). This was followed by their following a related discussion of health professionals on the same. Students subsequently became interested to read up the literature around the topic through the discussion (searching for foreground and background evidence). Having accumulated enough knowledge and interest on this topic, students proceeded to evaluate patients with the same condition and came up with further data that added to the existing literature.

Conclusions

The study is an initiative to utilise student learners/researchers to explore the complex trajectories most of the chronic disease patients follow which are yet undocumented due to lack of informational continuity. This asynchronous, multiuser and non-linear learning interface allows the application of structured information to real-life clinical cases and can improve medical learning and health-care outcomes in the long run

Key Words: User-driven healthcare, conversational learning, medical education, multi-user

Analysing the Pattern of Prescription Non-compliance in Patients of Cardiac and Diabetic Clinic of AGMC & GBP Hospital

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Introduction

Compliance is a medical term that means the degree to which a patient correctly follows a medical advice. Although medication compliance has received more attention in recent years, it is not a new problem. More than 125000 Americans die each year due to prescription medication non-compliance, twice the number killed in automobile accidents. Every year prescription non-compliance costs more than 270 million dollar in additional hospitalisations and other medical costs. 9 out of every 10 outpatients are taking prescribed medicines improperly contributing to prolonged illness and people who miss doses need 3 times as many as doctor visits as others. 10% of all hospital admissions are result of prescription medication non-compliance and 23% of all nursing home admissions are due to taking of medicines inaccurately. Aims: To ascertain the prevalence & find possible causes of patient non-compliance to prescription medication in patients suffering from chronic diseases like diabetes & cardiac diseases in Tripura, one of the north eastern states of India.

Materials and Methods

A total of 400 patients attending Cardiac & Diabetic clinic of AGMC & GBP Hospital, who were prescribed medications & other advices for at least last one month or more were selected randomly & were interviewed as per formatted questionnaire & were labelled as compliant or non-compliant as per their answers & data was analysed statistically. Duration of study was 2 months.

Results

As per this study, 286 (71.5%) were non-compliant & 114

(28.5%) were compliant. Non-compliance showed statistically significant relation with socioeconomic background of the patient ($P < 0.01$). Forgetfulness alone contributed to 71.7% apart from other reasons of non-compliance like symptoms cured (12.6%), drugs not effective (12.9%), necessity not felt by patients (23.1%), saving money (66.4%), difficulty in filling prescription (30.8%), frightening side effects (20.6%), Unpleasant taste/smell of drug (18.9%), confusion due to many drugs (23.1%), no enough confidence on doctor (2.8%).

Conclusions

This study suggested economic insufficiency as the main reason behind non-compliance. So drug supply to the patients at affordable prices, rational drug prescription should be encouraged. Besides reminder systems, counseling & role of physicians to motivate the non-compliant patients can reduce non-compliance & associated morbidity & mortality.

Key Words: Non-compliance, poverty, forgetfulness, rational prescription

Evaluation of the Attitude and Practice of Self-Medication with analgesics among North-Western Universities Students in Iran 2010

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Introduction

Self-medication is defined as using drugs for treatment of self-diagnosed disorders. It is influenced by the factors, such as education, family, society, law, availability of drugs and exposure to advertisements. There are a lot of problems such as side effects for the patient and some socioeconomic problems with self-medication. Aims: High levels of self-medication practices have been reported in Iran and comparable countries with analgesics which most of them are available as OTC drugs, so we decided to evaluate this problem in Kordestan East Azarbayjan and West Azarbayjan states

Materials and Methods

The target population of this study was about 684 students attending medical and non-medical sciences universities in Kordestan, East Azarbayjan and west Azarbayjan states in 2010

Results

85.8% (n=592) of students have used analgesics via self-medication in the past 3 months. Analgesic use frequency was once in 18.3% (n=99) of the participants, twice in 23.3% (n=126) three times in 15.9% (n=86) and more than three times in 42.4% (n=229) of the participants in the study period. Headache was reported by about 33.4% all respondents and was the most common problem and after it dysmenorrhoeal (17.4%), stomach ache (6.2), pain in joints and bones (5.4%) were the most major problems which led respondents to practice analgesic self-medication.

Conclusions

Analgesic self-therapy is a common practice among university students. Health care providers need to be aware of the students' self-therapy practices and academics need to consider offering courses about analgesics to students in both the medical and non-medical faculties.

Key Words: Self-medication- analgesics-student-university

Comparison between Partial Inferior Turbinectomy and Electrocautery for better Symptomatic Relief of Allergic Rhinitis

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Introduction

Allergic rhinitis is a condition due to inhaled allergens that mimics a common cold. The incidence of allergic rhinitis is increasing now-a-days due to unhealthy environmental changes. It is a common manifestation of allergic diseases affecting approximately 10-25% of the world population and about 26% of population in INDIA. The symptoms of AR include rhinorrhoea, nasal obstruction, nasal itching and sneezing. Aims: This study was done to: 1. compare the postoperative relief in both procedures; 2. determine the most effective procedure to bring relief from the symptoms of allergic rhinitis.

Materials and Methods

40 patients diagnosed of allergic rhinitis were selected and randomly divided amongst them into two groups to be treated with either partial inferior turbinectomy or electrocautery. After all the preoperative proceedings including detailed symptom grading, selected procedure was performed under LA. Patients were analysed postoperatively after 1 week & 1 month and the symptom relief grading was recorded and compared.

Results

Patients treated with partial inferior turbinectomy have mean \pm SD of 18.7 \pm 2.45 (preoperatively), 0.85 \pm 1.26 (1 week postoperatively) and 0.3 \pm 0.92 (1 month postoperatively). In contrast to patients who underwent electrocautery with scores as 16.25 \pm 2.17, 1.1 \pm 1.7, 2.1 \pm 2.78 respectively. Patients undergoing partial inferior turbinectomy were showing better improvement with respect to the symptoms of allergic rhinitis.

Conclusions

This study indicates that although electrocautery is a simple procedure, partial inferior turbinectomy gives better results in providing consistent and persistent symptomatic relief.

Key Words: Nasal obstruction, sneezing, nasal discharge, sense of smell, itching

Assessment of Sleep Patterns in Medical Students

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Introduction

Upto 40% adult population have insomnia with main problems like difficulty in getting sleep, early waking or feeling unrefreshed on waking. It is well known that prevalence of

insomnia increases with age. This study looks at the frequency of sleep problems and factors contributing to it, amongst the young medical students. Aims: Assessment of sleep patterns in medical students. Objectives : Quantifying aspects of sleep in medical students. Comparing gender differences in sleep pattern of medical students. Ascertaining contributing factors.

Materials and Methods

This study dealt out questionnaire to 293 consenting medical students. The questionnaire was compiled and adapted from other similar studies which was validated.

Results

Of the 293 students, 62.1 % are females, 57.3% have a sleep latency of less than 10 minutes, 29% consume coffee daily, 31.7% somewhat feel sleepy after any form of exercise, 57% feel sleepy after heavy dinner, 32 % sleep at noon for about 30 minutes, 49.5% sleep in the classroom when tired, 42% stay awake in the night during exams, 89.1% have a feeling that rainy days & winter days demand more sleep from them, 43% sleep less than 6 hours during exam time, 82.9% need someone to wake them up, 37.9% close all windows & doors while sleeping, 83.6% sleep for long hours on holidays, 68.9% fall asleep while travelling, 42.3% don't make their room dark while having shift schedules, 35.5% can somewhat concentrate after less hours of sleep, 44.4% have initial insomnia once a month, 42.3% sleep for about 7 hours on week days. Discussion: The study brings to light rare unprecedented sleeping habits adopted by medical students and total time for sleep being reduced to a range of 6-7 hours. The major factors being infotainment, social chatting by the internet and otherwise. The overall sleep outcome of medical students remains wanting in quantity to a percentage of 38%.

Conclusions

The sleep pattern in medical students reflect deficiency in quantum of sleep ratio, their quality of sleep and sleep latency relatively short, with night waking.

Key Words: Sleep latency, insomnia, night waking, medical students, sleep patterns.

Auditory and Visual Reaction Time Changes in Chronic Renal Failure Patients

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Introduction

Chronic renal failure refers to the clinical syndrome which results from progressive and irreversible loss of renal function. In the ensuing uremia, there is a loss of the excretory functions of the kidney, and also the metabolic and the endocrine functions are affected involving many organs in the body. Recent studies indicate the contribution of haemodialysis to hearing loss in renal failure and also increase in the visual reaction time. Aims: To determine and compare the auditory reaction time and the visual reaction time in chronic renal failure patients undergoing dialysis and healthy controls

Materials and Methods

This study was conducted on patients with chronic renal failure presenting to dialysis unit of The Department of Nephrology,

Dayanand Medical College and Hospital, Ludhiana. Twenty-five patients undergoing dialysis and twenty-five healthy controls were included in the study. A digital response time apparatus was used.

Results

Twelve male and thirteen female patients were included. Increased values in our patients were seen for auditory reaction time and visual reaction time experiments. There was a statistically significant ($P=0.000$) increase in the study group as compared to the control group in both the experiments.. (Bergstrom et al, 1980) reported hearing loss in 46% of chronic renal failure patients on haemodialysis. Hence, the results of present study conclude that a delay in central nervous system processing as suggested by increase in reaction time does occur. The above results can be explained on the hypothesis that the memory was affected by the renal function. As the renal function deteriorated more feedback or effort was required to commit the same amount of information to memory.

Conclusions

Patients with chronic renal failure that progressed to uremia, show involvement of central nervous system and peripheral nervous system. Renal failure may affect the peripheral nervous system resulting in neuropathy which shows a predilection for large diameter axons.

Visual reaction time for all the three colour stimuli (yellow, red and green) showed statistically significant increase ($P=0.000$) as compared to the control group. Auditory reaction time for all the three sound stimuli also showed statistically significant increase ($P=0.000$) as compared to the control group.

Key Words: Auditory and visual reaction time

Consistency in Inter-Play Between Revised Trauma Scale and CT-Findings in Traumatic Brain Injury Patients

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Introduction

Classifying the severity of Traumatic Brain Injury (TBI) and its management at a shift and precise manner is the need of "Golden Hour". The goal of this study was to check consistency in inter-play between Revised Trauma Scale (RTS) and CT-findings as (predictors of prognosis). Aims: To re-view consistency in interplay between Coma scales and CT classification in Traumatic Brain Injury cases at presentation and determining patient's outcome.

Materials and Methods

54 Traumatic Brain Injury (TBI) cases were reviewed (43 male and 11 female) between the ages of 18 to 75 (36.17 ± 14.9 years) admitted between 01-01-2010 to 01-08-2010 retrospectively from medical record section and as per the data recorded for Glasgow Coma Scale (GCS), Revised Trauma Scale (RTS) and CT-findings according to Marshall CT classification.

Results

Of the 54 patients aged above 18 years, 43 were male and 11 were female (range, 18 to 75 years; 36.17 ± 14.9 years). The ratio of male to female was 3.9:1. Males were affected more due to their high risk behavior. Correlation test between GCS vs. Marshall CT classification with a mean GCS on admission of 9.57 ± 3.92 and mean CT score of 2.31 ± 0.72 is significant at level of ($p < 0.01$) Similarly correlation test between RTS vs Marshall CT classification with mean RTS of 10.3 ± 1.51 was significant at ($p < 0.01$)

Conclusions

This study concludes that RTS and CT findings are highly correlated and have good consistency with each other. GCS included in framing 'Revised Trauma Scale' is more accurate for prognosis than when GCS is considered alone

Key Words: Traumatic Brain Injury, Glasgow Coma Scale, Revised Trauma Scale, Marshall CT classification

Indian Diabetes Risk Score [IDRS], a Simplified Screening Tool

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Introduction

Diabetes mellitus is a group of metabolic disorders that share the phenotype of hyperglycemia. Diabetes is an underdiagnosed disease, thus by the time a patient is diagnosed to have diabetes, some complications related to the disease had already developed. So it is important to screen the population at risk, so that the disease can be controlled at an early stage and its complications can be prevented. Indian Diabetes Risk Score [IDRS] is a Simplified screening tool, developed by Madras Diabetes Research foundation, for identifying undiagnosed diabetic subjects using four simple parameters, which requires minimum time and effort and can help to considerably reduce the costs of screening. Aims: Assessment of IDRS as an adequate screening tool for diabetes mellitus by calculating its sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV)

Materials and Methods

The study was conducted in June 2010 at a tertiary care center in Haryana. A total of 300 subjects participated; out of them 150 were known diabetic patients and 150 were healthy individuals who were not diabetics and who were selected by simple random sampling. The participants were made to fill a Performa and their demographic and clinical risk factors were noted and based on this, their IDRS was calculated.

Results

It was observed that a total of 109(73%) diabetics had IDRS higher than 60 whereas 41(27%) patients had IDRS lower than 60. Whereas only 30(20%) of the non-diabetic subjects had their IDRS above 60. Thus the sensitivity of IDRS came out to be 73%, specificity was found to be 80%, PPV came out to be 78% and NPV was 75%.

Conclusions

This study confirms that a simplified Indian Diabetes Risk Score can be used for identifying undiagnosed diabetic subjects in India. It is also a very cost effective screening method.

Key Words: Diabetes Mellitus, IDRS, sensitivity, specificity, positive predictive value, negative predictive value

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Diagnostic Value of Troponin-in Acute Myocardial Infarction

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Introduction

Acute myocardial infarction is defined as death or necrosis of myocardial cells. The diagnosis of AMI is commonly made by WHO criteria (2006) • History of chest pain • Evolutionary change in ECG (ST elevation and non ST elevation) • Elevation of several cardiac markers.

Necrosis of myocardial cells causes release of certain enzymes in the blood, commonly called markers. The common markers include creatine kinase (CK), lactate dehydrogenase (LDH), aspartate transaminase (AST), myoglobin and troponin (Hooper et al, 1995) Troponin I is a contractile protein found solely in myocardium. It is highly tissue specific and persists in circulation for days. Normal levels of troponin I in blood are 0.0-0.4ng/ml. It is only detectable at 4 hours or more, post injury, reaches at higher level within 16-24 hours & falls to normal level within 10 days. It is a very sensitive and specific indicator to damage of heart muscle. It is measured in blood to differentiate between unstable angina and myocardial infarction in patients with chest pain.

Aims: To measure the diagnostic value of troponin I (TnI) in patients with chest pain during the period of preadmission and admission to the hospital

Materials and Methods

A total of 50 patients presenting to the department of Medicine (Indoor & outdoor) of Rajindra Hospital, Patiala with chest pain constituted the study group. 20 patients constituted the control group. Special investigations such as Troponin – I and other investigation like 12 lead ECG, CPK-MB (as reference pattern), AST, ALT, FBS, Hb, TLC, DLC, B.urea and S.creatinine were done

Results

50 patients were studied with an average age of 58 ±13 years, 38 male (76%) and 12 female (24%), 47(94%) patients had ST-elevation in ECG. TROPONIN-I levels were elevated in 47 cases (94%) and none in the control group. All the cases had CPK-MB positive, however AST, ALT and FBS levels were found within the normal range. Cardiac troponins are extremely specific for myocardial necrosis (Scirica and Morrow, 2004)

Conclusions

TROPONIN-I have high diagnostic value in acute myocardial infarction (AMI). Determination as part of the diagnostic protocol is of great importance to plan the hospitalisation and treatment in this group of patients

Key Words: Diagnostic value, Troponin-I, myocardial infarction

Awareness and Compliance with Standard Precautions among Health Care Workers at Mangalore

Introduction

The Standard Precautions are environmental precautions that were devised with the idea of preventing the transmission of blood borne infections. Health Care Workers (HCW'S) are frequently exposed to blood, thus they are at a risk of acquiring blood borne infection by percutaneous (needles) or mucocutaneous (splash of blood into eyes/mouth) means. Awareness of UP's rapidly increased with the advent of HBV and HIV infections, as compliance with the UP's drastically reduced the risk of acquiring these infections. Even so, full compliance with UP's has often been found lacking due to various factors ranging from lack of knowledge to lack of equipment and hence they have been practiced rather selectively. **Aims:** The objective of this study was to determine the awareness and compliance with Universal Precautions among health care workers in Mangalore.

Materials and Methods

The Study was a cross sectional study that was carried out on health care workers at three teaching hospitals in Mangalore for a duration of one month. A 28 Item pre-tested, semi structured, self administered questionnaire was provided to 200 health care workers including doctors, laboratory technicians and nurses. The respondents had to choose 1 choice from alternatives proposed under each question in a 5 point likert scale. Data was analysed using SPSS Version 11.5, Statistical test Chi square was used and P value less than 0.05 was taken as significant. The protocol was approved by the dept review board.

Results

The response rate was 81% (162/200), About 90% of the health care workers were aware of standard precautions, The awareness was highest among doctors (85%) followed by Nurses (80%) and Lab technicians (56.3%) which was found to be statistically significant. Compliance to Standard precautions was highest among doctors (87%) followed by Nurses (83%) and lab technicians (72%), it was found that those who were aware their compliance was the highest.

Conclusions

Periodic Training Programmes should be conducted to improve the awareness among health care workers about the Standard precautions and by doing so hope to increase the awareness which was found to be lacking, reduce the exposure and thereby the incidence of the diseases associated with occupational exposure to blood or other body fluids.

Key Words: Standard Precautions, awareness, compliance

Knowledge and Attitude of Senior Secondary Students Regarding Family Planning and Contraception in Kadapa, AP

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Introduction

Family planning is the practices of the couple so that they

prevents unwanted births and control the spacing between child birth that help to create a small and planned family. It is the best way to control the rapidly and massively growing population. So family planning contributes effectively in order to promote the health and welfare of the family group and thus contribute effectively the social development of a country. Mother's health not only affected by nutrition status but also by early marriage, frequent pregnancies, early motherhood, abortion etc. Moreover child's health is also affected by mother's health. In that contest family planning provided all the advices and methods to avoid above events. WHO (1970) has started the wider dimension of family planning starting from proper spacing and limitation of births to sex education, genetic counseling, teaching home economics and nutrition. This programme makes a planned and scientific approach to the issues and problems of family life and attempts to solve them to make the family life happiest, harmonious and fruitful. Aims: To asses knowledge attitude regarding family planning and population growth among senior secondary students.

Materials and Methods

The present study is a descriptive study done on Government and Private college of Kadapa with prestructured questionnaire. 359 students were used out which 247 boys and 112 girls were studied. Chi square and proportion were used for analysis.

Results

The large majority of the students 85.2%(306 out of 359) had the realisation of negative impact of uncontrolled population on the development of country. But the knowledge of its consequences was restricted to socio economic implications like lack of jobs 268 out 306. The most preferred age among boys is between 22 to 27 years and girls is 18 to 22 years. The 2 child norm was acceptable to most. The known contraceptives 337 out of 359 is condoms and 202 out of 359 is OC Pills. boys prefer condoms and girls OC Pills. there knowledge regarding contraceptives limited to control of population.

Conclusions

The study highlights the need to motivate youth for effective and appropriate use of contraceptives when required and arrest trend towards unwanted pregnancy and control population growth

Key Words: Family planning, contraception, knowledge ,OC pills

**A Profile of Paediatric Patients
Receiving Anti Retroviral Therapy at
a Secondary Care Hospital in
Southern India**

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Introduction

The population of people living with HIV in India comes to around 2.5 million. Approximately 50,000 children are infected every year due to inaccessibility and resource limitations of interventions which reduce the risk of mother-to-child transmission. The number of children receiving ART has increased, for which NACP-III has established comprehensive

guidelines on pediatric HIV care. Aims: Aim: To study the profile of pediatric patients receiving ART Objectives: To study the socio demographic characteristics of pediatric patients. To study the clinical profile

Materials and Methods

Study design used was record based study and a semi structured proforma was used for collecting the data. The study was conducted in District Hospital, Udipi where the case files of 96 pediatric patients (under 15 years on 31st January 2010) receiving ART were reviewed and analysed using SPSS 11.5. Results were expressed in percentage.

Results

In the study 41 children (42.6%) are below the age of 10 years and the remaining (57.3%) are 10 years to 15 years of age. Majority of them are from the district of Udipi (91.7%) and have entered the program through ICTC (68.8%). The risk factor for transmission was found to be mother to child in all. Mean absolute CD4 count at the start of ART for the given population was 304.2 with a standard deviation of 304.012. Majority of the patients (70.8%) were on a regimen consisting of Stavudine, Lamivudine, Nevirapine. The common opportunistic infections seen in this group was Tuberculosis (20.8%), Jiroveci Pneumonia (7.3%), Recurrent respiratory infections (7.3%), Candidiasis (5.2%). Out of 96 children on ART 2 deaths were recorded. Adherence in the past month was above 95% in all children.

Conclusions

Absolute CD4 count was above the mean in 24.1% subjects. 2 children on ART had died. The main opportunistic infection, Tuberculosis was seen in 20.8% patients. Measures to prevent mother to child transmission and early enrolment in ART need to be concentrated upon.

Key Words: Paediatric, ART, clinical profile

**A Study On Sociocultural Factors
Affecting Unmet Need For
Contraception**

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Introduction

It has been seen that despite adequate knowledge about the various contraceptive methods, many couples still do not use any modern form of contraception and as a result there are a substantial number of unintended pregnancies. There is a huge gap between knowledge, attitude and practice of contraception (KAP gap). Aims: To estimate the unmet need for contraception in women attending antenatal clinic at Srimati Sucheta Kriplani Hospital, New Delhi and find out the reasons for the same.

Materials and Methods

A descriptive cross sectional study of 100 pregnant women attending antenatal clinic of Srimati Sucheta Kriplani Hospital, New Delhi was undertaken based on oral questionnaire method. The number of women who were aware about contraceptives, had used them; number of unintended pregnancies and reasons for the same were found out. Unmet need of contraception was calculated.

Results

95 % women were aware but 62 % had never used any modern form of contraception. 30% of the pregnancies were unintended and 80% of unintended pregnancies were due to not using contraceptives, thus giving the unmet need for contraception to be 24%. Husband's negligence(46.7%) , husband's non-cooperation(20%), religious factors (3.3%), fear of side effects (3.3%), myths (3.3%) and limited access (3.3%) all contributed to unmet need for contraception. Parity and socioeconomic status was found to affect the unintended pregnancies while literacy was not. 11% women did not intend to use any contraceptive method after present pregnancy, 7% relied only on natural methods.

Conclusions

There is a high rate of non use of contraceptives among women who are aware about the same and there is a high rate of unmet need for contraception. This signifies the need to intensify the family planning programmes, to increase the participation of males, and dispel the myths and fears associated with contraceptive use. Women who do not wish to use any form of contraception after present pregnancy or who rely on natural methods should be sensitised to the benefits of family planning and counselled about the failure rates and safety of various contraceptive methods.

Key Words: Contraception, unmet need, parity, kap gap

A Study on Antihypertensive Drug Utilisation Pattern in a Rural based Tertiary Care Teaching Hospital

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Introduction

Hypertension is one of the commonest cardiovascular disorder worldwide and is posing a major public health challenge to societies in socioeconomic and epidemiological transition. - Effective anti-hypertensive therapy will almost completely prevent the haemorrhagic strokes, cardiac failure and renal insufficiency. -Drug utilisation pattern is an important measure of drug use indicator. Aims: -To find out the current antihypertensive drug prescribing pattern in hypertensive patients at our hospital.

Materials and Methods

Study conducted in Department of Medicine O.P.D., Shree Krishna Hospital and Pramukh Swami Medical College, Karamsad. -150 adult hypertensives willing to regularly take prescribed antihypertensives. -Duration of the study 6 months. -Information regarding name of the drug prescribed was collected in a proforma.

Results

Beta Blockers were maximally prescribed(BB,47.33%) drugs followed by Calcium Channel Blockers(CCB,44.66%), Diuretics(33.33%), Angiotensin converting enzyme inhibitors(ACEIs,26%) Angiotensin receptor blockers(ARBs,20%) and Centrally acting sympatholytics(05.33%) -Combination therapy was observed in 53.33% of patients whereas 46.66% received Monotherapy.

Conclusions

-Beta Blockers, Calcium Channel Blockers, Diuretics were commonly prescribed antihypertensives, followed by

Angiotensin converting enzyme inhibitors and Angiotensin receptor blockers. -Combination Therapy were more prescribed than Monotherapy.

Key Words: Antihypertensive drug utilisation pattern

A Study of Prevalence of Undetected Refractive Errors Among School Children in Kadapa

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Introduction

Globally, it is estimated that 2.3 billion people have refractive errors. Out of which 1.8 billion have access to adequate eye examination and affordable corrections leaving behind 500 million people, mostly in developing countries with uncorrected errors causing either blindness or impaired vision. About 13% of them are in the age group of 10-15 years. Refractive errors have been associated with certain other factors like positive history of wearing glasses in the family, close work or near activity such as prolonged study hours, watching computer/television etc. Aims: 1. To determine the prevalence of undetected refractive errors among students of government and private high schools. 2. To determine any factors associated with occurrence of these refractive errors such as family history, prolonged near work etc.

Materials and Methods

The present school based cross sectional study is being conducted in urban area of Kadapa. 4 schools were selected randomly and prior permission taken from concerned authorities explaining the importance of the study. Study population consisted of students from class 6th to class 10th in government schools and private schools. Students already using glasses regularly were excluded from the study. Students were selected by systemic random sampling. Students are examined by assessing visual acuity from a standard Snellen's chart and Hirschberg's test for squint. Visually impaired cases [$<6/9$] were taken for computerised auto refraction. Particulars of each student were filled on a prestructured questionnaire. Data will be analysed by SPSS

Results

Out of 842 students [435 boys and 407 girls], 207 students [24.5%] showed refractive errors. 119 girl students [29.21%] and 88 boys [20.2%] showed refractive errors. Myopia was the most common refractive error being 50.8% (105/207) of the total. Astigmatism, both simple as well as mixed / compound was 29.1% (60/207) while hypermetropia was least common i.e. 20.1% (42/207). Strong correlation was found between a positive family history of wearing glasses, watching television closely, close study, studying in dim light and over indulgence in computer or video games.

Conclusions

It is recommended that adequate preschool examination of the children be made mandatory and part of the admission policy of all the schools in India. In addition, there should be periodic examination of the school children at least on annual basis.

Key Words: School children, refractive errors, Snellen's chart

A Study of Prevalence of Sleep Disorders Among Medical Students at RIMS, Kadapa

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Introduction

Life in a medical school is very demanding in terms of physical and mental health. The students may suffer from stress arising out of academic obligations, a new competitive environment, pressure to pass exams, separation from parents and home, stressful relationship with colleagues. These factors may lead to sleep deprivation which in turn affect their academic performance either directly or indirectly. The international classification of sleep disorders-2 (2005) (ICSD-2) classifies the sleep disorders in six major categories: Insomnia, Sleep related breathing disorders, Hypersomnias, Circadian rhythm sleep disorder, Parasomnia, Sleep related movement disorders. Aims: 1. To study the prevalence of sleep disorders among medical students.

Materials and Methods

This is a cross sectional descriptive study involving 400 medical students from all the batches at RIMS, Kadapa, Andhra Pradesh. Informed consent was taken from all the participants after being explained the purpose of the study. Data was collected by means of Pittsburgh Sleep Quality Index (PSQI) - a standard questionnaire and a pretested self administered questionnaire regarding various associated factors. The data was initially processed manually and sorted out in terms of frequencies of the variables used and tabulated using frequency distribution and percentages. Later, SPSS software will be used for analysis of data.

Results

Out of 400 students, 232[58%] were boys and 168[42%] were girls. Total of 115[28.75%] students have scores of >5 indicating sleep disorders. Prevalence rates among boys and girls were 32.7%[55] and 25.8%[60] respectively. Disorders related to daytime dysfunction, sleep latency and subjective sleep quality were more among boys where as disorders related to sleep duration, habitual sleep efficiency, sleep disturbances and use of self promoting medications were more among girls.

Conclusions

In conclusion, analysis of the sleep pattern of medical students revealed that most of them are sleep deprived, which in turn may affect their academic performance. University authorities should acknowledge that students' sleep habits are significant concerns that may affect their academic performance and hence warrant educational programs and interventions. The need for further local research on students' sleep is clear.

Key Words: Sleep disorders, medical students, Pittsburgh Sleep Quality Index (PSQI)

A Study of Prevalence of Colour Vision Defects Among School Children in Kadapa

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Introduction

The young Helmholtz theory of colour vision in human postulates the existence of three kinds of cones of maximal sensitivity to red, green and blue colours. Colour blindness is the commonly used term for deficiency of colour vision. Screening for the detection of colour vision defects in school children is vital as unaware about the disability, students may have difficulties in certain aspects while learning in school and also may choose certain professions, not suitable for them which require proper perception of colours. Aims: 1. To find out the prevalence of colour vision defects in school children.

Materials and Methods

The present school based cross sectional study is being conducted in urban area of Kadapa. 4 schools were selected randomly and prior permission taken from concerned authorities explaining the importance of the study. Study population consisted of students from class 6th to class 10th in government schools and private schools. Students were selected by systemic random sampling. Their ability to name the fundamental spectral colours and Ishihara's pseudoisochromatic charts recorded. Recording of results was done individually with Ishihara's pseudoisochromatic plates. Students were expected to read the charts in less than 3 seconds. Those who read wrongly or were unable to read were regarded as colour vision deficient. For such subjects, all the plates were used again. Plates 22-26 used again to determine the type of colour blindness. The manual along with Ishihara's plates was used for diagnosis.

Results

Out of 842 students [435 boys and 407 girls], 24[2.73%] showed colour blindness. Among 24 colour blind children, 22 were male and only 2 were females. In 5.05% [22] male colour blind children, 12[54.5%], 7[31.8%] and 3[13.6%] boys were the victims of deuteranopia, deuteranomaly and protanomaly respectively. In 0.49% [2] female children, both were having total colour blindness.

Conclusions

Colour blindness was much prevalent in the male as compared to female children. It is recommended that colour vision should be checked in school children as a routine. This would greatly help the colour blind children to choose their future profession.

Key Words: School children, colour vision, Ishihara's chart

A Study of Fixed Dose Combination Preparations of Nutritional Supplements with Specific Reference to Iron Containing Preparations: Assessment of Rationality

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Introduction

Given the large number of nutritional supplements available in the Indian market especially as fixed dose combinations (FDCs) and being one of the most prescribed drugs despite the irrationalities persisting among them. This study was conducted to analyse and assess these drugs and rationality of the same. Aims: Study the FDCs available as nutritional supplement and do their qualitative analysis for their number, nature and amount of constituents and cost and assess rationality of each based on a rationality scale

Materials and Methods

Analysis of drug formulations enlisted under the category of nutritional supplements, under the subheading of vitamins, iron, zinc and tonics in the Drug Today was carried out for their dosage form, banned combinations, evidence of efficacy, cost, individual constituents and their amount per unit

Results

There were 2620 preparations categorised under nutritional supplements of which 2081 were found under vitamins, minerals and tonics with FDCs constituting 84.07%, 92.94% and 100% share respectively. The number of constituents in single preparation were found to be high with highest being 30. Banned combinations were found in 33%, 14% and 69% under each of the above category. Under the category of vitamins only 34% and 12% of formulations were found to be adhering to therapeutic and prophylactic range of vitamins respectively and only 30% of those also containing minerals fell within their RDA. Among iron preparations 97% were found to be FDC with maximum no of constituent being 20 of which only 23% preparations had minerals falling within RDA. 59% of all the preparations scored 5 or less on the rationality scale

Conclusions

majority of the drugs were FDCs consisting of irrational drug combinations either in the form of banned drug combinations or preparations with unproven. Most of the vitamin preparations are not suitable for prophylactic use. There are a large number of "me too" preparations. There is large heterogeneity in the amount of minerals in the formulations, mostly not abiding with their RDA. The costs of formulations are relatively high.

Key Words: Nutritional supplement, FDCs, irrationality, drug today

A Study of Fine Needle Aspiration Cytology in the Paediatric Age Group with Histopathological Correlation

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Introduction

Fine needle aspiration cytology (FNAC), is an increasingly popular diagnostic procedure for investigation of either palpable or non palpable, superficial and deep masses. It is a simple, reliable, relatively painless and rapid technique. Aims: 1. To study the spectrum of FNAC encountered in pediatric patients (0-18 yrs) with respect to the age, sex and anatomic distribution pattern of the aspirates. 2. To estimate the number of benign versus malignant cytological diagnosis and to subclassify each group. 3. To correlate the cytological with the histopathological diagnosis of cases which were subsequently

biopsied. 4. To assess the technique by scientific statistical methods for sensitivity, specificity, positive and negative predictive values.

Materials and Methods

The partly retrospective and partly prospective study was based on 126 cases of FNAC that were reported during the six months (Jan-June '2010) study period in the pediatric age group i.e. 0-18 years of the outpatient department of Sir J. J. Hospital, Mumbai. Out of these 15 cases were correlated histopathologically. Statistical values were calculated and compared with similar studies.

Results

The age range in our study was 0-18 years which was subdivided into four groups, 0-4yrs, 5-9yrs, 10-14yrs and 15-18yrs; the largest number of cases were in the 15-18yrs of age group (48.41%). There was female preponderance over males in our study (60.31%). Topographic distribution revealed that maximum cases were in the lymph nodes (61%), followed by soft tissue (20%), breast (10%) and thyroid (9%). Benign lesions (84.92%) outnumbered malignant lesions (1.59%). Histopathological exam was done in 15/126 (11.91%) cases. Out of these 10 cases were confirmed histopathologically (66.67%) while 2 cases were false negative and diagnosis of 3 was given exclusively by histology. The sensitivity was 85.71%, specificity was 100%, positive predictive value was 100% and negative predictive value was 33.33%.

Conclusions

To conclude FNAC is a very simple and expeditious procedure which can be carried out with ease in children without encountering many problems. Thus FNAC can be recommended as a first line of investigation in the diagnosis of swellings in the pediatric age group.

Key Words: Primary line of investigation

A Study Of Different Prognostic Factors of Non Small Cell Lung Cancer in Patients Attending Oncology Department of a Hospital at Kolkata, West Bengal

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Introduction

Cancer is an important cause of mortality and morbidity today- the very name evokes fear in people's minds. Lung cancer, especially the non small cell variety, is one of the commonest malignancies in India. It is one cancer for which definite prognostic factors have been identified. The present study has been conducted to have an idea about the prevalence of selected factors. Aims: The project was done to find out the prevalence of selected prognostic factors for NSCLC among patients attending the oncology department, BPPHMI and thereby identify risk factors and danger signs to alert both patients and physicians.

Materials and Methods

All diagnosed patients (total 100) of NSCLC attending oncology dept., BPPHMI between October 2009 to September 2010 were

enrolled as per the study criteria and records examined to detect the presence of different prognostic factors in them, using a cross-sectional observational study pattern. The selected prognostic factors were: age, sex, histology, cough, haemoptysis, other symptoms, complications and t-stage at presentation.

Results

During the period, 100 patients attended the oncology dept, 68% being males. 43% were above 60 years, 34% between 41 to 60 years. Adenocarcinoma was more common in non smokers males and females (over 90%), squamous cell carcinoma being more common in smoker males (88%). Cough was present in 93% patients and haemoptysis in 71%. Among other symptoms, breathlessness and fever were most common. 84% male patients and no females were smokers. Lymph nodes (hilar and mediastinal) were commonest sites of metastases, followed by liver. Pleural effusion was the commonest complication (55%). Maximum patients (88%) presented in stage iiib or iv.

Conclusions

Smoking appears to be a major risk factor for nsclc and patient education should be carried out to reduce the disease burden. The presence of cough and/or haemoptysis, especially in above 40 yrs age group, advocates thorough follow up. Ideally regular check ups to be done in the risk groups (smokers, >60 years age) to diagnose nsclc at an earlier stage to improve survival chances.

Key Words: Lungcancer, Prognostic Factors, Smoking, Metastasis

A Study of Depression, Anxiety and Stress in Junior College Students from Rural Area of Loni, Maharashtra

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Introduction

Increasing stress on school children has become a matter of national concern. A change in methods of imparting education is strongly felt. The study aimed to find the extent and causes of depression, anxiety and stress in junior college students in Loni, a rural area in Maharashtra. Aims: The study aimed to find the extent and socio- demographic profile of depression, anxiety and stress in junior college students in Loni, a rural area in Maharashtra.

Materials and Methods

This cross-sectional study was carried out in 360 students of P.V.P Arts, Science and Commerce Jr. College in Loni. Stratified Random Sampling was used for selection of 120 students (consisting of equal number of girls and boys) each from arts, science and commerce streams. The questionnaire consisted of General Information and Depression Anxiety Stress Scale-42 (Lovibond and Lovibond) analysis was done using mean and Z values of DASS scores.

Results

Depression, anxiety and stress are higher in students appearing for board exams, arts students, students with lower grades, students from marathi medium, students living in hostels.

Conclusions

Choice of stream, class, place of residence, change in language of education, income, education of parents, previous grades, peer pressure, burden of expectations, access to educational, recreational and public health resources have an important relationship with depression, anxiety and stress in students. The interventions aimed at reducing stress in students need to take these factors into account while formulating national policies.

Key Words: Depression, Anxiety, Stress, Junior college students

Evaluation of Prevalence of Asthma and Awareness of Respiratory Problems in College Students

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Introduction

Prevalence and mortality due to bronchial hyper-reactivity (Asthma) has increased in spite of better medications. Striking geographical features and often dynamic environmental factors are majorly responsible for the same. Industrialisation and urban growth are also contributing towards making the Indian population all the more susceptible to respiratory problems like Asthma. In the city of Mumbai, due to a warm and moist climate, the population of the city is predisposed to respiratory diseases. The present study has been planned in order to determine the incidence of Asthma and level of awareness about respiratory problems amongst college students, who are commonly exposed to several triggering agents. Aims: To determine the prevalence of Asthma in a group of college students; the level of awareness regarding respiratory problems amongst them.

Materials and Methods

The project was approved by the Ethics Committee of Seth G.S. Medical College and K.E.M. Hospital, Mumbai. 100 college students in the age group of 18 to 25 years were recruited following well defined inclusion and exclusion criteria. The data based on the questionnaires was analysed employing appropriate statistical tests.

Results

Of the 100 students examined, very few were found to be known asthmatics while one, though symptomatic, was unaware of his respiratory problem and was diagnosed with Asthma with the aid of appropriate Pulmonary Function Tests and was asked to follow up in the Chest OPD at KEM Hospital for further treatment. The low incidence of the disease in this study is probably due to two factors namely, the students hailing from a higher socio-economic strata and the clean environmental setting around the College and their residential areas.

Conclusions

It would be advisable to study the prevalence of Asthma in a larger population in order to get a realistic picture. -It will also be necessary to correlate prevalence with individual causative factors in order to fine tune the treatment modalities. - It is

necessary to conduct such surveys amongst schools and colleges across the city of Mumbai in order to include subjects from various socio-economic strata who are probably exposed to different environmental settings. -Data obtained from this pilot study clearly indicates the necessity to conduct educational modules to increase the awareness of respiratory problems.

Key Words: Prevalence, Asthma, College Students, Awareness

A Prospective Study on the Prevalence of Beta Hemolytic Streptococcal Carrier State and its Antibiotic Sensitivity among School Going Children in Secunderabad

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Introduction

Sore throat caused by Group A beta-hemolytic streptococci (GABHS) is one of the most common diseases during adolescence. The non-suppurative sequelae of streptococcal sore throat include rheumatic fever leading to rheumatic heart disease, and acute post-streptococcal glomerulonephritis. GABHS colonisation of the upper respiratory tract of children may play an important role in the spread of infection in the community setting. There is not much information on the screening of children for asymptomatic carriage of GABHS in India. Aims: 1) To estimate the prevalence of carrier state of GABHS in 100 healthy school going children aged 11-15 years. 2) To determine antibiotic resistance patterns if GABHS is isolated from the sample. 3) To ascertain the causes for bacterial resistance among carriers in the community. 4) To study the Demographic profile of asymptomatic GABHS carriers

Materials and Methods

Throat swabs were collected from 100 school children aged 11 to 15 yrs from 2 schools in our locality in a 2 month study. The isolates of GABHS were tested for antibiotic sensitivity. The inclusion criteria were having no symptoms or signs of upper respiratory tract infection, and no antibiotics usage in the last two weeks

Results

GABHS were isolated from 17 per cent of 100 asymptomatic children included in the study. Upon performing an antibiogram, all of them were sensitive to cephalothin, erythromycin, vancomycin, and resistant to penicillin. Our study suggests that inappropriate use of these antibiotics increases the chronic carrier state of GABHS in our community.

Conclusions

Healthy carriers of GABHS are sources for bacterial dissemination and are able to communicate the disease and may even lead to severe epidemics. This highlights the importance of regular surveillance programmes to keep GABHS infections and carriage in check. Further, reliable prescriptions can be made by practitioners and the importance of treatment adherence can be better appreciated

Key Words: Carriage, Secunderabad, pharynx, streptococci

Dermatoglyphics in Vitiligo: A Case Control Study

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Introduction

Dermatoglyphics is the study of dermal ridges and the patterns formed by them. Epidermal ridge patterns can be used for the diagnosis of hereditary diseases. Vitiligo is a hereditary disease with a polygenic inheritance. Aims: The aim of our study was to examine the usefulness of dermatoglyphic patterns in the diagnosis of vitiligo.

Materials and Methods

A total of 100 controls (43 females, 57 males) and 100 cases (44 females, 56 males) of vitiligo were examined for dermatoglyphic patterns and ridge count. Finger prints of all ten fingers were collected, examined and dermatoglyphic features were analysed between female patients and female controls, and, male patients and male controls.

Results

The results of the analysis showed that in all fingers (except Finger 5), "whorl" pattern was more commonly seen in Vitiligo (Case) Group as compared to the Control Group and it was statistically significant ($p < 0.05$). "Arch" pattern was more common in Vitiligo (Case) Group as compared to the Control Group in fingers 2 and 7; it was statistically significant ($p > 0.05$). In contrast, Fingers 5, 6 and 9 showed "Arch" pattern more in Control group as compared to the Vitiligo (Case) Group ($p > 0.05$). The mean a-b ridge count and atd angle in Vitiligo (Case) Group and Control Group were statistically not significant ($p > 0.05$).

Conclusions

Our study shows that dermatoglyphic traits can be used for the diagnosis of vitiligo patients. It can also be of use in genetic counselling.

Key Words: Vitiligo, dermatoglyphics, whorl, arch, a-b ridge count, atd angle

A Prevalence Study of Depression and Anxiety in Adults with Type 2 Diabetes Mellitus

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Introduction

Every third person in the world suffers from the bite of this sweet poison. Considering the rate at which our lifestyle is modulating it comes to us as no shock. An increasing number of studies have examined neurobehavioral or cognitive patients with Type 1 and 2 diabetes mellitus. Depression is a major health problem, and so is diabetes. A history of major depression was found in 33% of the patients; despite high prevalence of depression in people with diabetes, it is frequently unrecognised and untreated. Depression is

significantly associated with hyperglycemia and may adversely affect the glycemic control and increase the risk of diabetic complications. Patients with depression and diabetes are more prone for severe complications. There aren't many estimates available which is essential to deal with the consequences. Aims: To investigate the prevalence of depression and anxiety in adults with type 2 diabetes attending a tertiary health care hospital in Navi Mumbai.

Materials and Methods

A sample size of 100 adults with Type 2 diabetes were considered. An OPD based study was done. Following which they were given to fill the Beck Depression Inventory -2 and Clinical Anxiety Scale which was used to assess depression and anxiety respectively. Being a co-relational method of analysis, the data was reported mainly in means, frequencies, \pm Standard deviations, percentages, Odds Ratio (OR) and 95% Confidence Intervals (CI).

Results

The chances of depression was significantly higher in those \geq 56 yrs (OR=1.09, 95% CI= 0.6-1.9). It was mainly associated with obesity (OR=1.6, 95% CI=0.9-2.8). The mean duration of diabetes among all the participants was 5-10 years. 69 % of the patients had a relevant family history of diabetes. Among the patients 15% were hypertensive. Of all the patients assessed based on BDI- II, 38% were severely depressed and 44% were moderately depressed. The most commonly seen aspects were agitation, irritability, difficulty in concentrating and tiredness.

Conclusions

Clearly, depression and anxiety in adults with type 2 diabetes is largely seen and more so in males with an age group of \geq 56 with a number of factors precipitating it. Thus, it is very essential to change our lifestyles NOW than regret later.

Key Words: Depression, anxiety, diabetes

**A Novel Rapid
Immuno-chromatographic Test for
Screening HIV 1 and 2 among
Pregnant Women**

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Introduction

Conventional testing methods used in Integrated Counseling and Testing Centre for screening HIV requires technicians and laboratory facilities. SD Bioline HIV 1/ 2 is a simple, cost effective immuno-chromatographic screening test, for detecting HIV in resource poor settings. Aims: To evaluate SD Bioline with kits (Coomb AIDS, Capillus and Triline) used in Integrated Counseling and Testing Centers in terms of time, instrumentation and patients acceptance for the test.

Materials and Methods

During a 2 month period, 216 pregnant woman attending Kempegowda Institute of Medical Sciences antenatal Out Patient Department and labor rooms with unknown HIV status were screened for HIV after obtaining an informed consent. 20 ul of whole blood is obtained by lancet prick on the tip of middle finger. The whole blood is added to sample well of test kit, followed by 3 or 4 drops of reagent. The test is read at 15

minutes with an outer limit of 20 minutes. Interpretation: Colour band on Line 1 + Colour band on Line C = HIV 1 Positive
Colour band on Line 2 + Colour band on Line C = HIV 2 Positive.
Colour bands on both Line 1 and 2 + Colour band on Line C = HIV 1 and HIV 2 Positive
No Colour band on Line C = Invalid Result. Repeat test on a fresh kit.

Results

According to pairwise t-test, value of (t) for SD Bioline was -3.54 with a table value of 2.6. Since (t) is less, we conclude that the mean time taken for SD Bioline is the lowest among the four tests. According to the test for proportions, the proportion of patients who preferred the test is significant.

Conclusions

Results showed that SD Bioline is a cost effective, efficient, easy to interpret test, which can be done at point of care with greater patient acceptance in situations demanding quick clinical intervention. Since the test differentiates between HIV 1 and 2, it helps in planning the treatment protocol and epidemiological survey.

Key Words: SD Bioline, HIV, point care.

**A KAP Study of Food Handlers
Regarding Food Safety Measures in
Public Food Establishments in a City
in Western Maharashtra**

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Introduction

The incidence of food borne disease is rising in the developing countries as well as the developed world. The number of people eating outside has increased in the recent years due to various factors such as urbanisation. The food handlers play a key role in maintaining food safety. Hence the present study was planned to evaluate the knowledge, attitude and practices of food handlers in public food establishments in the city. Aims: 1. To assess the knowledge, attitude and practices regarding food safety measures amongst food handlers in public food establishments in the city. 2. To assess the personal hygiene of the food handlers in public food establishments in the city.

Materials and Methods

The present study is cross-sectional study based in Miraj city. The study was carried out among 70 participants working in public food establishments in the city. The hotels were selected by a simple random sampling technique. From each hotel 5 participants were selected randomly and if less than 5 all the handlers were selected. They were assessed using a semi-structured pre-tested questionnaire for their personal hygiene, knowledge, attitude and practices with regards to food safety measures. A scoring system was developed and the participants were then distributed into categories. The collected data was then subjected to relevant statistical tests.

Results

It was found that majority of food handlers were in the age group of 15-30 years (68%), Male (79%), Hindus (92%). 90% of the food handlers had education level of less than 10th standard or were illiterate. 56% had acceptable level of personal hygiene. The knowledge, attitude and practices scores

of 75%, 83% and 60% of the food handlers fell in the acceptable levels respectively. It was found that 20% of the food handlers had some form of current infection and had reported to work.

Conclusions

The study showed that majority of food handlers barely reached acceptable category of KAP scores, thus there remained the danger of spread of food borne diseases in the community and there is a need for educating the food handlers for food safety measures.

Key Words: Food handler safety measures

A Cross-sectional Descriptive, Socio-demographic Profile and Assessment of the Knowledge, Attitude and Practices Regarding HIV/AIDS of Clients Attending an Integrated cCounselling and Testing Centre

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Introduction

Integrated counselling and testing could be considered as one of the most cost effective way of reducing HIV transmission in the resource poor countries. So I carried out a cross sectional study at ICTC at a rural area based tertiary care centre where an entire spectrum of the beneficiaries form different socio demographic backgrounds was studied. Aims: To study the socio-demographic profile and to assess the knowledge, attitude, practices and source of information regarding HIV/AIDS of the beneficiaries attending the ICTC at a tertiary care centre. SPECIFIC OBJECTIVE 1. To draw a direct relation between various socio-demographic variables like gender, age, residence, education, occupation of various beneficiaries versus the knowledge, attitude and practises prevalent in them. 2. To note the source of information, whatever prevalent, of the beneficiaries

Materials and Methods

TYPE OF STUDY – Cross sectional analytical study. STUDY SITE – ICTC at a tertiary care centre. INCLUSION CRITERIA - All the beneficiaries who attend the ICTC during the month of June and July 2010. EXCLUSION CRITERIA - Beneficiaries who do not give their written consent for the study. DURATION OF STUDY – 2 months. NUMBER OF SUBJECTS – 70. An informed written and signed consent for the participation in the study was taken from all the participants. SAMPLE COLLECTON - Participants were interviewed using a pretested structured questionnaire attending the ICTC center in June and July 2010. PROCESSING – The data collected was fed into the computer software and suitable analysis was carried out.

Results

My study shows that knowledge regarding the transmission of HIV/AIDS is good in 35.3%, while really bad in 50% of the individuals and was moderate in 24.7%. Moreover that study showed that 48% of males and 60% females prefer outcasting an AIDS patient. More over the study it showed that 32.8% people believed AIDS happens to only those who live immorally while 30% opposed this thought, and rest did not know. My study also showed that 17% possessed knowledge about the

disease and its symptoms while 55.7% were ignorant about it, especially villagers. Loads of other significant information came up but it is not possible to enlist all in here.

Conclusions

It should be concluded that most of the cases coming to ICTC are referred (67.1%) and that too referred by a private doctor (42.8%). The knowledge among the villagers is quite less than city population and it has a direct relation to the education of the person, while there is not much difference of knowledge between the males and females. The attitude towards AIDS education and AIDS affected individual is poor in villages and uneducated group but shows encouraging figures when it comes to educated and city population. Occupation has little effect on the attitude towards HIV/AIDS. Practices regarding AIDS are still poor, that is use of preventive measures, and awareness about immediate knowledge, in uneducated and rural population. Most important source of information among all is media, especially television, while hardly any role of social worker as a source of information. Doctors, friend and society are also a significant source of information on HIV/AIDS.

Key Words: HIV ,ICTC

A Cross-sectional Study of Knowledge, Attitudes and Behaviour on HIV/AIDS among Goan Youth

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Introduction

Research questions: 1. What is the level of knowledge of Goan youth about HIV/AIDS and STDs, including their transmission and prevention 2. What are their attitudes and behaviors towards people living with HIV/AIDS? Aims: 1. To evaluate the level of knowledge about HIV/AIDS, its transmission and prevention, among the youth in the state of Go 2. To analyse the attitude and behaviors of Goan youth toward PLHAs.

Materials and Methods

The present community based cross-sectional study was carried out over a period of 18 months among youth, in the age group of 15-49 years in the 2 districts (North and South) of the state of Goa. The sample size was calculated by presuming awareness level regarding HIV/AIDS to be 30%. Accordingly, a total sample size of 763 individuals, between age group of 15-49 years was selected, by stratified, random sampling. The stratification was done for age, and the age groups used as per UNAIDS protocol, who were 15-24 years, 25-34 years, and 35-49 years. A 2-paged questionnaire based on the WHO/UNAIDS protocol, for measurement of HIV prevention indicators for young people was developed, for interviewing the participants, ensuring confidentiality and obtaining informed consent of the participants. The data was tabulated and analysed using simple proportions.

Results

Results of the pilot study performed on a sample of 30 study participants revealed that majority of Goan youth were aware about HIV/AIDS. Most of them were also aware of at least 2 important modes of HIV transmission and at least 2 modes of HIV prevention. However, the perceptions and attitudes towards PLHAs leaves a lot to be desired.

Conclusions

There is adequate awareness among Goan youth in the reproductive age group of 15-49 years about HIV/AIDS and STDs, and about at least 2 important modes of transmission and prevention. However, there is a need to change, to improve the perceptions and attitudes of Goan youth, towards PLHAs. There is a need for sex education and adolescent health education to be introduced, before youth complete their school and/or college studies.

Key Words: HIV/AIDS, STDs, knowledge, attitudes, behaviour

A Cross-sectional Study of Domestic Violence in Married Women in Asudgaon Village of Raigad District

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Introduction

Domestic violence has major implications on a woman's health. According to NFHS-3 (2005-06), the prevalence of domestic violence in ever-married women is 37.2%. However its magnitude is likely to be underestimated because of the sensitivity and stigma associated with it, leading to underreporting of the issue. Thus, this study endeavours to assess the prevalence, causes, and demographic and socio-cultural determinants of domestic violence. **Aims:** Aim: To conduct a cross-sectional study of domestic violence in married women in Asudgaon village of Raigad district. **Objectives:** 1. To measure the prevalence of domestic violence in married women of Asudgaon village. 2. To determine the causes of domestic violence, including its demographic and socio-cultural determinants.

Materials and Methods

A community based, cross sectional study was conducted at Asudgaon village, Raigad district. 250 married women were interviewed personally using a pre-designed and structured questionnaire to determine whether they were subjected to domestic violence and if yes, to assess its causes, including the demographic and socio-cultural determinants. The data was compiled, tabulated and analysed. Statistical analyses were done using Mean and Percentages.

Results

The prevalence of domestic violence was 33.2%. The various causes were conflict over cooking and household work (38.55%), wife's nagging or arguing (32.53%), children related issues (30.12%) and economic distress (26.5%). Slapping (46.98%) was the commonest form of physical violence, followed by pulling hair (14.46%), twisting arm (13.25%) and having things thrown at her (13.25%). Experiences of sexual violence included marital rape (12.05%), being forced to have sex without protection (10.84%), being forced to perform unnatural sex (6.02%) and being forced to imitate acts as shown in pornographic films (4.82%). The most common socio-cultural risk factor for domestic violence was addiction (42.11%), followed by poverty (38.55%), husband brought up with the idea that wife-beating is acceptable (36.14%) and visiting brothels (16.86%). Only 5.26% of the affected females sought legal help to deal with the violence.

Conclusions

A comprehensive health sector response to this problem is

needed for preventing violence against women, identifying abuse early, providing victims with the necessary treatment and referring women to appropriate care.

Key Words: Domestic violence, violence against women (VAW), gender inequality.

A Comparative Study of Stress and Self-efficacy among Medical and Non-medical Students

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Introduction

The incidence of stress and stress-related illnesses among students and physicians is increasing internationally. Perceived self efficacy and stress are two, opposing, forces which help in moulding the career of any student as well as in determining the quality of life a student lives during his formative years and later on as a professional. **Aims:** Our aim in the study was to quantify Stress Level, Perceived Self Efficacy levels and the risk of disease due to stress among Medical and Non-Medical students. We also aimed to find out any correlation between the Stress levels and Perceived Self Efficacy among students.

Materials and Methods

A cross-sectional study was conducted among medical and non medical students in Mysore Medical College and Research Institute. Holmes and Rahe Stress Scale and General Self Efficacy Scale were used to find out the levels of stress and perceived self efficacy levels among medical and non medical students

Results

Out of the 410 completed forms received 123 were non medical students and 287 were medical students. 70.48% (289) of the students had stress scores of less than 150 which puts them at minimal risk of developing stress related disease. Only 2.92% (12) of the students had stress scores above 300 putting them at high risk of developing stress related disease. Although there was no correlation found between the stress scores and the field of study ($p=0.108$), stress scores correlated with the year of the study among medical students ($p=0.01$). Stress scores were highest among the third year medical students. Perceived self efficacy was high in all students regardless the field of study and the stress scores. Medical students had better perceived self efficacy when it came to problem solving ($p=0.02$). Perceived Self efficacy was found to be dependent on the year of study among medical students ($p=0.02$) with second year medical students having the highest and the first year medical students having the lowest scores.

Conclusions

Prevailing stress levels among professional students warrant the need of interventions which aim at imparting stress management skills to students. This will help students in attaining optimal levels of health and work

Key Words: Stress, self efficacy, medical & non-medical students

A Comparative Study of Premenstrual Syndrome among College Girls who are Below 20 Years and Working Women of 35 years and Above

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Introduction

Premenstrual syndrome (PMS) or more severe premenstrual dysphoric disorder affects millions of women in terms of change in mood, somatic, and behavioral symptoms that occur during luteal phase of menstrual cycle and abate soon after the onset of menses. The precise etiology is unclear. Hormonal disturbances and alterations in biophysiological mechanism seem to play an important role. The symptoms range from breast tenderness, pain and swelling, fatigue to anxiety, depression etc. Aims: 1. To assess the prevalence rate of PMS among college girls and working women and to find the most common symptom in each group. 2. To find the impact of lifestyle on the behavioral pattern of PMS.

Materials and Methods

A sample population of 100 (50 college girls and 50 working women) was studied to find out the objectives using a standard premenstrual syndrome questionnaire after obtaining a written consent to participate.

Results

1. Demographic profile : AGE – 50 in age group of 18-20 and 50 in age group of 35-45; Marital status- 50 married, 50 single, Occupation- 50 working, 50 students People following fitness regime- 24 out of 100. 2. The prevalence rate of PMS among the sample population is 13.66%. Among college girls (age 18-20) it is 14.761%. Among working women (age 35-50) it is 12.571%. 3. The most common symptoms reported are; Anxiety-48% Irritation-56% Mood swings-43%, Depression-29%, Breast tenderness-31%, Acne-34%, Weakness-56%, Among the age group 35-50, breast tenderness, irritation, mood swings and weakness are common symptoms. 5. Among the age group 18-20, acne, anxiety, irritation, depression were common. 6. There is a positive correlation between people following a regular fitness regime with improvement in symptoms like irritation, depression, palpitation, weakness, swollen extremities and acne.

Conclusions

Premenstrual syndrome is a very common disorder in all women of reproductive age group but simple measures like fitness (exercise, yoga) can improve some of the symptoms and improve quality of life.

Key Words: Premenstrual syndrome, prevalence rate, common symptoms and correlation with fitness has been studied

2D:4D & Personality

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Introduction

Digit ratio or 2D:4D is the ratio between the lengths of second (index finger) and the fourth (ring finger) finger in any one hand or a mean of both hands. The 2D:4D is influenced mainly by the prenatal exposure to testosterone. In males due to a high exposure to prenatal testosterone the 2D:4D is found to be low and females have a higher ratio due to decreased exposure to prenatal testosterone. Testosterone is also known to influence an individual's personality which also exhibits sexual dimorphism. Personality is best defined as a combination of emotional, attitudinal, and behavioral response patterns. Aims: This study is aimed at finding how 2D:4D influences an individual's personality.

Materials and Methods

The study population consists of undergraduate medical students aged 18–22 years of either sexes (n=100). The subjects were explained the purpose of the study and after obtaining their consent, they were administered the 16 personality factor questionnaire (16PF) to assess their personality. 2D:4D was measured using digital vernier callipers. Subject Data sheet was given to each of the participants to obtain their personal details like age, sex, performance in examination, etc., which might also influence the above factors.

Results

On statistical analysis, sexual dimorphism was observed in digit ratio, with females having a higher ratio than males. A higher digit ratio was significantly associated with increased neuroticism scores which includes traits like tension, vigilance, apprehension. A low ratio was significantly associated with emotional instability, dominance, rule consciousness and perfectionism.

Conclusions

In conclusion, 2D:4D can be used as a tool for identifying personality disorders and correct them at an early age.

Key Words: 2D:4D ratio, digit ratio, personality, testosterone

A Study Of Cord Blood Lipid Profile in Neonates and Its Association with Birth Weight and Maternal Factors

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Introduction

Atherosclerosis due to alteration of serum lipid profile is well documented as a major cause of cardiovascular diseases. According to foetal origin hypothesis, atherosclerosis originates during foetal period. In paediatric practice, hyperlipidemia seldom presents as a clinical problem, however there is evidence that children with cholesterol levels in upper quartiles are at increased risk of subsequent atherosclerosis. Hyperlipoproteinaemia can be diagnosed at birth by elevated levels of umbilical cord cholesterol or low density lipoprotein. Cord sera have been demonstrated to contain all well characterised adult lipoproteins. Hence, determination of cord blood lipids becomes a useful investigation in detection of high risk babies. Factors that influence lipid profile levels at birth include genetic factors, fetal sex, gestational age, birth weight, maternal hypertension and diabetes. Aims: 1. To determine the cord blood lipid profile in neonates. 2. To correlate lipid profile with

birth weight and sex. 3.To study association of lipid profile with maternal factors.

Materials and Methods

The present study was conducted in the departments of Biochemistry and OBG at Rajiv Gandhi Institute of Medical Sciences, Kadapa. Present study comprises 60 new borns delivered in this hospital. Maternal factors like hypertension, diabetes mellitus etc were recorded after interrogating the mother. After taking informed consent from parents, Umbilical cord was routinely clamped within one minute of delivery. 10 ml of cord blood was collected from the placental end, immediately after the cord was transected and before the placenta was delivered. Precaution was taken to avoid contamination with maternal blood. After clotting at room temperature, serum was separated by centrifugation and stored at 40 C. The analysis was done within 16 hours after obtaining the sample. Serum cholesterol, triglycerides, lipoproteins were estimated by semi-auto analyzer and enzymatic methods using ERBA-kit. Findings were statistically analysed using SPSS and student's t-test .

Results

Of the 60 new borns, 33 were boys and 27 were girls. Of 19 preterm babies, 11 were boys and 9 were girls. Among these 19, 14 were of low birth weight [<2.5 kg]. The mean values of weight, TC, HDL-C, LDL-C, VLDL-C and TGS in boys were 2.79 ± 0.31 , 79.2 ± 19.1 , 19.7 ± 5.2 , 52.1 ± 23.6 , 13.1 ± 4.17 , 59.4 ± 17.3 respectively. These values in girls were 2.61 ± 0.42 , 81.3 ± 20.2 , 20.6 ± 4.1 , 56.8 ± 27.9 , 10.31 ± 3.42 , 53.45 ± 18.2 respectively. Total and HDL-C were significantly higher in girls when compared to boys. The mean cord blood triglycerides of full term neonates were significantly higher than preterm neonates [65.1 ± 9.2 vs 59.2 ± 10.9 respectively, $p=0.04$]. Birth weight correlated with high triglyceride level [$r=0.41$, $p < 0.01$]. In neonates with family history of hypertension and diabetes, significant percentage have raised triglycerides and total

Conclusions

The present study, though small, reflects possible interaction of environmental factors and fetal growth and the in utero lipid metabolism. Establishment of reference values for lipoprotein would facilitate control and eventually reduction in the frequency of atherosclerosis. Long term longitudinal studies would help to elucidate relationship.

Key Words: Cord blood, lipid profile, birthweight

seasonal variation on natural conception, while others cannot confirm them. Aims: To evaluate the effect of season on pregnancy rate in intrauterine insemination (IUI) and Assisted Reproductive Technology (ART) cycles.

Materials and Methods

Setting: University infertility clinic at Kasturba Hospital, Manipal which is a tertiary health-care centre serving the general population. DESIGN: Retrospective study. METHODS: The study was conducted on patients who underwent intrauterine insemination and ART cycles.

Results

A total of 836 pregnancies out of which 725 were from IUI and 111 from ART treatment were analysed. In ART cycles, a significant increase in the number of pregnancies was observed in monsoon season (July to October) (44%, $P < 0.05$) and also in winter (November to February) (36%) when compared to summer (March to June) where only 20% pregnancies were observed. However, the differences between the number of pregnancies in winter and summer were not statistically significant. In IUI conception cycles, although, the incidence of pregnancy were more in winter (37%), it was not significant compared to summer (31%) and monsoon

Conclusions

A significant association between the number of pregnancies and season was observed in ART conceptions but not in IUI program.

Key Words: IUI, ART, seasonal variation

Cuticular Scales of Human Hair From Different Body Regions: Morphometric Analysis and its Role in Identification and Gender Classification

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Introduction

Hausmann (1920) reported that cuticular scales of hair were of different forms and dimensions and that scales might be related more to the dimensions of the hair than to any taxonomical classification. We wanted to explore the basis of this observation and find out if indeed the dimensions of cuticular scales were related only to the dimension of the hair or more information could be derived from the morphometric analysis of the cuticular scales. Aims: 1. To look at general morphology of human hair from different body regions 2. To measure certain dimensions of cuticular scales and derive cut-off values to aid in determining the region of the body and also to aid in gender classification.

Materials and Methods

This study was conducted in mamata medical college, khammam. The hair samples from different body regions like scalp, axilla, pubic and body hair were collected from 200 medical students (100 male and 100 female). A cast of the cuticular scales were made on regular microscope slides using a

Seasonal Influence on Intrauterine Insemination (IUI) and Assisted Reproductive Technique (ART) Success

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Introduction

Effect of seasonal changes in human reproduction has been intensively researched in IUI and IVF. Their results are contradictory; some studies acknowledge influences of

simple technique. The slides were examined under a high power microscope with digital image capture capability and images were recorded. These high resolution digital images were further analysed by an image analysis software and certain measurements were made. The data thus obtained was subjected to analysis using SPSS version 19.0 and the ROC curve was generated for each parameter to determine various cut-off points

Results

A descriptive study of human hair from different body regions was done and various general characteristics were documented. The morphometric differences of human hair between different body regions of the same individual and also between individuals of opposite sex were clearly demonstrated. Various cut-off points for different body regions as well as gender classification were successfully derived.

Conclusions

Cuticular scales of human hair are a relatively under – studied feature as a basis of identification in forensic medicine. This study clearly shows that the morphometric characteristics of human hair can indeed be used as a means of identification

Key Words: Cuticular scales, morphometry, ROC curve, gender classification

Study of Palmer Dermatoglyphics in Patients with Eczema in the Age Group between 20-50 years in Both Sexes

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Introduction

The term Dermatoglyphics [from the Greek, Derma = skin, glyphics = carvings] is the scientific term coined by Prof. Harold Cummins. The analysis of dermal ridges and their configurations by studying prints of them is called Dermatoglyphics.(1) The term is also used as a collective name for all the features of ridged skin. The skin patterns are studied from prints or impressions.Aims: To find out dermatoglyphic patterns in eczema patients in the age group of 20-50 years, to compare them with controls and to evaluate the significance of dermatoglyphics in eczema. In present study, we tried to determine whether these parameters can be used for screening purpose i.e. to identify people with genetic predisposition to develop to eczema.

Materials and Methods

Patients were asked to wash both their hands with soap and the prints of both hands were taken. Finger and palm prints of 50 eczema patients and 50 controls were obtained. These were studied quantitatively for total finger ridge count (TFRC), absolute finger ridge count (AFRC), and mean 'atd' angle, qualitatively for finger print patterns (whorls, radial loops, ulnar loops and arches) and palmar pattern (simian line and Sydney line).

Results

(in both male and female patients) The Mean Total Finger Ridge Count (TFRC) in study group was higher i.e. 77.95 with S.D. of 20.01 as compared to control group which had TFRC of 69.21

with S.D. of 24.12. The Mean Absolute Finger Ridge Count (AFRC) in study group was higher with 101.42 S.D .of 46.45 as compared to control group which had AFRC 93.77 with S.D .of 42.24. The triradius was placed proximally in patients than in controls.

Conclusions

Dermatoglyphics has been studied extensively in chromosomal disorders, single gene disorders and those disorders whose genetic basis is not clear. The present study indicates that there are some genetic factors involved in eczema and it is possible to predict from dermatoglyphics the individual's chance of acquiring eczema. Like clinical history, examination and investigations, the dermatoglyphics will play an important role revealing the genetic susceptibility to eczema.

Key Words: Eczema dermatoglyphics ridge analysis genetics

Study of Ophthalmic Morbidity Among School Children of Ahilyabai Holkar School, Loni

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Introduction

There are about 180 million visually challenged people worldwide of which 45 million are blind. Of these 1/3rd are in South- East Asia. In the Indian scenario 1/5th of the world's blind are from India. There are about 2 million people suffering from cataract induced blindness in our country and 67% children (10 – 14 years of age) have problems with eye sight. 5 lakh children go blind every year, which amounts to 1 child/min.Aims: 1.To find out the most prevalent ocular morbidity. 2.To study the prevalence of ocular morbidity among high school students. 3.To study the relation of demographic factors with ocular morbidity. 4.To impart knowledge regarding eye care. 5.To refer the cases to Ophthalmic OPD.

Materials and Methods

Study design:cross sectional. Setting:ahilyabai holkar school, loni. Study period: 3 months [june, july, august]. Study population: 201 students from std vii, viii, ix, x. Materials used: 1. Prestructured proforma 2. Snellen's chart 3. Ishihara's colour chart 4. Torch 5. Pinhole. Inclusion criteria: students from ahilyabai holkar school [std vii,viii,ix,x]. Exclusion criteria: 1.students absent for all 4 days 2.below vii std. Procedure: 1.history was taken and general examination was done. 2.opthalmic examination was carried out 3.diagnosis as confirmed by an ophthalmic resident 4.icd codes were used in classification of ocular diseases 5.data was analysed and chi-square test was applied 6.selected cases were referred to ophthalmic opd

Results

•Out of 201 students 66 were found to have ocular morbidity i.e. 32.83% •the commonest cause of ocular morbidity in this study was refractive errors [29.85%] •out of 60 , 54 of them were unaware of their refractive error.

Conclusions

- Majority of cases detected were either preventable or treatable •these morbidities if not attended to at the right time , may progress to severe disabilities or blindness •conditions like refractive errors if not detected early can lead to amblyopia
- the prevalence of ocular pathology causes a reduction in child's school performance. •early intervention like screening eye programmes for children should be carried out.

Key Words: Ophthalmic morbidity, refractive error

Study of Microalbuminuria in Diabetic and Hypertensive Patients

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Introduction

Microalbuminuria is presence of albumin in urine above the normal level but below the detectable range of conventional urine dipstick methods Microalbuminuria is present in very early stages of diabetes at a time when glomerular filtration rate (GFR) may be normal and when there is no evidence of abnormal glomerular filtration. Thus, in early diabetes microalbuminuria may be a marker of the subsequent development of proteinuria and diabetic nephropathy. Similarly in hypertension, until late in the course of hypertensive nephropathy, renal damage is asymptomatic and laboratory findings are subtle. Microalbuminuria is prevalent in hypertensive patients and hence helps in early detection of hypertensive nephropathy.Aims: 1. To detect prevalence of microalbuminuria in diabetic and non-diabetic, hypertensive (NDH) patients. 2.To correlate microalbuminuria with age, sex, duration of disease in diabetic and non-diabetic, hypertensive patients.3.To correlate microalbuminuria with blood sugar (fasting and post-prandial).

Materials and Methods

A cross-sectional study was carried out between July-August 2010. 25 cases of both diabetes and NDH were taken into the study including newly diagnosed cases and those negative for albuminuria by dipstick method. Patients with acute illness, proteinuria or having both diabetes and hypertension were excluded from this study. Random urine sample was collected and microalbuminuria was detected by Micral test which includes test strips for the immunological, semi-quantitative in-vitro determination of urinary albumin up to a concentration of 100 mg/L. Blood samples were also collected for FBS, PPBS, urea, creatinine.

Results

The prevalence of microalbuminuria was 72% and 60% in diabetics and NDH respectively. Prevalence of microalbuminuria increases with increase in duration of the disease in diabetics and NDH with 72% and 58.3% respectively. Positivity of microalbuminuria revealed higher range of urea and creatinine in diabetics and NDH with an average of 66%.

Conclusions

Our study concludes that microalbuminuria is essential for early detection of diabetic nephropathy or any other target organ damage. Therefore, it is recommended that microalbuminuria test should be done at regular intervals for diabetics and NDH.

Key Words: Microalbuminuria, diabetes, hypertension

Study of Mantoux Test in a Subset of Patients with TB, HIV-TB Co-infection and Controls

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Introduction

Tuberculosis is major cause of morbidity in developing countries. During the past century, the tuberculosis skin test was the only available diagnostic tool to detect latent TB infection (LTBI). Approximately 10% of individuals with LTBI will develop active tuberculosis in their lifetime and up to 50% of HIV infected patients will develop active tuberculosis within 2 years after infection with MTB. In clinical practice, the cutaneous reaction to Purified Protein Derivative (PPD) i.e. tuberculin is used as an aid to the diagnosis of LTBI. We feel there is an urgent need for further test with good specificity and sensitivity to give an idea of exposure to Tuberculosis in Immunocompromised individuals and we thought to evaluate the basic test available widely in the form of Mantoux test.Aims: To study reactions to the standard Mantoux test(MT) in the above groups and examine the reactions to the standard Mantoux test to compare them with the current guidelines for the interpretation of Mantoux testing.

Materials and Methods

Confirmed cases of TB (n=40), HIV-TB co-infection(n=20) and non-TB non-HIV controls(n=40), excluding pediatric patients, were selected from patients in a large urban general hospital and were given MT following their clinical and laboratory evaluation. Patients of any form of tuberculosis viz. pulmonary, extrapulmonary, disseminated/ miliary TB were taken. MT results were interpreted after 48-72 hours as positive or negative according to current guidelines (more than 5mm for HIV+TB cases and more than 10mm for TB, controls).

Results

We found MT positive in 10 (25%), 5 (25%), 4 (10%) of TB, HIV-TB Co-infection and Controls respectively whose Chi square value of 3.52 at d.f.=2 is not significant at 1% level. All cases of disseminated/ miliary TB had a negative MT. There was no correlation found between CD4 counts and MT reactivity in HIV-TB co-infected cases.

Conclusions

From the previous studies documenting 41% positive MT in general population in India and our study we conclude that Mantoux test is not a reliable test for diagnosing LTBI and there is a need for other tests to detect LTBI. High diagnostic sensitivity as evidenced for ELISpot assay, Quanti FERON-TB Gold and T spot-TB test will allow more accurate targeting of persons with latent infection at highest risk of progression to tuberculosis.

Key Words: Latent TB, HIV-TB, Mantoux Test, Induration size

Study of Dhat Syndrome & Myths Associated With it

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Introduction

Dhat syndrome is the most prevalent cultural bound syndrome in the Indian Subcontinent. Such patient has misperception that there is passage of semen in urine or stool, attribute it to nightfall, masturbation & overindulgence in sex. (Though there is no clinical evidence suggestive of it). On this account present with symptoms like fatigability, anxiety, depression, loss of appetite and guilt. Such patient may co morbidly associate other cultural bound syndrome like KORO (misperception that one's genital organ is receding into the body.) Preferentially these patients consult quacks, alternative & complementary medicine than psychiatrist. In most instances it has been witnessed such practitioner deliberately impart irrational & baseless sexual facts that aggravates the patient condition, enabling them to unscrupulously play with patients mindset. The aims & objectives were to find factors and myths associated with it, assessing extent of practitioner of alternative and complementary medicine reprehensibility in playing with the mind of patients and basis for implementation of sex education. Aims: Find prevalence of Dhat syndrome, find factors and myths associated with it, assessing extent of practitioner of alternative and complementary medicine reprehensibility in playing with the mind of patients and basis for implementation of sex education.

Materials and Methods

Knowledge and perception study, conducted at RMCH campus from 15th March to 15th June 2010. From 300 participants comprising consenting male patients between 10 to 45 years, those individuals turned out with this syndrome, formed the basis of this study. Details like socio-demographic profile, psychiatric symptoms, consultation to quacks, practitioners of complementary & alternative medicine (their opinion regarding patients condition) and views regarding seminal composition, impact of seminal discharge on the body taken into account.

Results

38 participants turned out with Dhat syndrome. The mean age for Dhat patient was 21.1+/-3.1. Invariably all complained of undue concern regarding debilitating effects of seminal discharge, fatigue and weakness. 42.3% consulted quacks, practitioner of alternative & complementary medicine.

Conclusions

Such cultural bound syndrome is attributed to psycho-engineered sexual myths. Sex education can be availed as a tool in curbing spurious propaganda cultivated by quacks, practitioner of alternative & complementary medicine.

Key Words: Dhat syndrome, Koro, cultural-bound syndrome, sex education, practitioner of alternative and complementary medicine

Introduction

The number of frivolous malpractice suits being initiated against doctors is increasing with each passing year. There is nothing more distressing to a doctor than being sued, especially when the lawsuit has absolutely no merit. In order to properly defend a medical negligence law suit, the doctors need to know the relevant provisions of CPA and also should have knowledge about the defenses available to them in case the complaint is filed. However, the present situation as regards knowledge of practicing doctors about CPA is quite grim. Aims: To assess the level of awareness about CPA amongst the medical practitioners of rural Maharashtra, their willingness to participate in programs designed to spread awareness about CPA and to know how many have implemented various levels of measures to prevent any litigation.

Materials and Methods

The study group was assessed objectively by providing them with interrogatories. Each question had five options. The subject chose the best suitable answer. The information gathered from the data sheets/ proforma so completed by all the subjects was compiled and statistically analyzed using chi square test.

Results

The awareness among medical practitioners (25% of these attending to 30 – 40 patients per day) was 54.35%, 45% of which were affiliated with medical colleges and 30% were private practitioners while the awareness amongst the interns was 53.46%. 14% of practitioners were associated with private organisations of which only 11% were updated about CPA. Only 33% had indemnity insurance and 87% were interested to know more about CPA.

Conclusions

CPA is a burning issue among various practitioners and a reason to worry for both doctors and patients. The study gave an insight about some specific provisions of CPA about which they are especially ignorant. It will enable us to design some practical modules to raise the awareness so that these practitioners are sensitised to the legal aspects of medical practice and take steps to prevent such litigations by making necessary changes in the manner and method of their practice.

Key Words: Awareness of CPA, Chi square test, indemnity insurance, private organisations

Study of awareness about Consumer Protection Act amongst Medical Practitioners of Rural Area in Maharashtra

Skin Manifestations in HIV Positive Individuals

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Introduction

Acquired Immuno Deficiency Syndrome (AIDS) is a global pandemic affecting nearly 2.31 million people in India alone. Diseases of skin and mucous membrane occur in more than 90% of patients with HIV disease. These may be the earliest and the only sign of HIV/AIDS. As the disease progresses, skin diseases tend to become more severe with unusual

presentations as compared to non HIV patients. The prevalence and the spectrum of skin and mucosal manifestations may vary in different regions and different populations. The present study was undertaken to determine the prevalence and the spectrum of skin and mucosal lesions in HIV positive patients in this part of the country. Aims: To study the prevalence of skin manifestations in HIV positive individuals attending ART centre in Thoothukudi Medical College Hospital.

Materials and Methods

A thorough clinical examination for the skin and mucosal manifestations was done in about 204 HIV positive patients during the period of May and June 2010. Observations were tabulated and analysed.

Results

The prevalence of skin manifestations in HIV positive individuals was 82.8%. Highest prevalence (75.98%) was seen in the age group of 22 – 45 years without gender preponderance. About 47.9% of patients with skin manifestations had CD4 count ranging between 201 and 500. Among the skin manifestations, pigmentation disorders was the highest (60.94%) followed by nail changes (46.74%), oral manifestations (23.66%) like candidiasis, oral hairy leukoplakia, hair changes (19.52%) like madarosis, elongated eyelashes were observed. Acquired ichthyosis (27.21%) exacerbated insect bite reactions (7.1%) and lipodystrophy (4.1%) were also seen. Few cases of folliculitis, viral warts, herpes zoster, pityriasis versicolor, seborrheic dermatitis were also noted.

Conclusions

Skin changes are the most common in manifestation in HIV disease. Examination of the skin in suspected cases will help diagnosis of HIV disease at the earliest. The present study assumes significance in Indian context, where there is least awareness about skin diseases in HIV positive patients. Hence the results of this study will increase the awareness of the clinicians, about the varied pattern of skin manifestations and proper management. Early diagnosis, prompt therapy would decrease the morbidity and improve the quality of life of HIV-infected patients.

Key Words: Skin manifestations, AIDS

Serum Magnesium Levels as an Indicator of Status of Diabetes Mellitus type II

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Introduction

Magnesium is associated with a variety of processes related to glucose metabolism. (1) Hypomagnesaemia has been found to be associated with diabetes mellitus and its metabolic control. (4) Since not many reports are available from South India bringing out the relationship between poor glycemic control and hypomagnesaemia, this study was undertaken. Aims: To quantitate the levels of serum magnesium in patients with Type 2 Diabetes Mellitus. To estimate the levels of glycosylated Hemoglobin (HbA1c) in patients with Type 2 Diabetes Mellitus. To elicit a probable association between the levels of HbA1c and serum magnesium in these cases. To compute a correlation, if any, between the levels of Magnesium

in serum and the duration of Type 2 Diabetes Mellitus.

Materials and Methods

The present study was conducted on 50 patients diagnosed to have type 2 DM after eliciting thorough history and clinical examination. Fasting blood sugar, serum magnesium and HbA1c levels were estimated. A two hour post prandial sample was also analysed for blood sugar in these patients. Patients were divided into three groups based on their HbA1c values namely those with good control (group 1), need intervention (group 2), and poor control (group 3).

Results

The overall mean \pm SD values of FBS, PPBS, magnesium and HbA1c were 157 ± 63.7 mg%, 257.8 ± 109.8 mg%, 1.5 ± 0.4 mg% and 10.5 ± 3.2 % respectively. The mean values of FBS, PPBS and serum magnesium differed significantly between the three groups. Significantly low magnesium levels were observed in groups 2 and 3 compared to group 1. Hypomagnesaemia was strongly associated with HbA1c levels. Also, 62% of patients had hypomagnesaemia. Magnesium levels decrease exponentially with duration of type 2 DM.

Conclusions

Hypomagnesaemia is an accompanying feature in poorly controlled diabetes mellitus. The results of this study suggest that serum magnesium levels could be used as a sensitive and an economical indicator of the status of diabetic control.

Key Words: Serum magnesium, HbA1c, diabetes mellitus, hypomagnesaemia, fasting blood sugar

Study of Prevalence of Hypothyroidism in Type 2 Diabetes Mellitus and Establish its Correlation with Duration and Complications of Disease

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Introduction

Diabetes mellitus affects 285 million peoples globally of which 50.8 million peoples are in India. Studies account that diabetes mellitus is associated with and also result in various metabolic disorders including hypothyroidism. This study is conducted to know if any correlation exists between occurrence of hypothyroidism and diabetes mellitus. Aims: 1. Study of prevalence of hypothyroidism in type 2 diabetes mellitus and comparison with control. 2. To establish any correlation of hypothyroidism with duration and complications of diabetes.

Materials and Methods

study was conducted in Department of Medicine Dr BRAM Hospital Raipur on patients of DM type II. subjects were divided into two groups. 1. Study Group A-type 2 diabetes mellitus patients not known thyroid disorder. 2. Control Group B-healthy subjects not having diabetes mellitus. METHOD- 1) Detailed history and clinical examination. 2) three fasting blood sugar levels 3) serum T3, T4 and TSH value estimation

Results

Out of 50 patients 11 had altered thyroid hormone level, 10 (20%) having decreased and 1 elevated. Mean T3, T4

and TSH level in diabetics was 108.3 ng/dl, 8.32mcg/dl, 3.41mIU while in control it was 131.2 ng/dl, 9.10mcg/dl, 2.28mIU respectively. DM2 for duration 6-10 yrs, chance of hypothyroidism 20% and with >10 yrs chances 40% complications in DM2 which correlated with hypothyroidism were retinopathy (50%), neuropathy (30%), nephropathy (20%), IH (10%).

Conclusions

Out of 50 patients of DM2 10 (20%) had hypothyroidism which is statistically significant thus establishing the correlation. Incidence of hypothyroidism increased with duration of diabetes ($p < 0.001$) statistically significant correlation between complications in DM2 and hypothyroidism was

Key Words: Diabetes mellitus, hypothyroidism, correlation, complication

Seroprevalance of Hepatitis B Surface Antigen and Anti-HCV In HIV Infected Patients In and around Pune

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Introduction

HIV infection appears to influence the natural history of infections with certain hepatitis viruses. People at high risk for HIV infection are also likely to be at increased risk for Hepatitis B virus and Hepatitis C virus. There is high degree of epidemiological similarity between Hepatitis B virus and HIV. The co-infection of HCV with HIV is associated with a loss of immunological control of HCV and more rapid progression of Hepatitis C. Also the co-infection with hepatitis viruses may complicate the delivery of antiretroviral therapy (ART) by increasing the risk of drug related hepatotoxicity and may interfere with the selection of specific agents. Co-infection of HIV with HBV and/or anti-HCV is known to result in higher viral load of hepatitis viruses and greater liver damage. Therefore the present study was undertaken to look at the prevalence of anti-HCV and HBV in different stages of HIV infected patients in and around Pune. Aims: To know and understand:- 1. Seroprevalance of HBsAg and anti-HCV in HIV positive patients; 2. Prevalence in different stages of HIV infection; 3. Immune status of the patient with the co-infection.

Materials and Methods

260 newly diagnosed and confirmed HIV positive patients attending ART centre for the first time were tested for HBsAg and anti-HCV using third generation ELISA kit. 50 serum samples from healthy donors were screened by ELISA as mentioned above.

Results

Out of 260 samples 12 (4.62%) were HBsAg positive and 6 (2.31%) were anti-HCV positive and 1 was both HBsAg and anti-HCV positive with majority of them falling in class II or III (CDC classification of AIDS). This increased prevalence of the co-infection correlates with a similar study carried out in Nagpur by SS Tankiwale et al. Majority of the positive cases had low CD4 count (<250) which correlates with a similar study carried out in Jaipur by Rai RR et

Conclusions

Looking at the prevalence, there is a need to screen patients attending ART centre for the first time (and also other HIV positive cases) for HBsAg and anti-HCV so that further management can be changed accordingly. However, further research on this needs to be done with more sample size.

Key Words: HBV, HCV, HIV, seroprevalance

Study of Xerophthalmia in Confined Population

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Introduction

Xerophthalmia is caused by a severe vitamin A deficiency. This study is an attempt to determine the xerophthalmia status of persons from a section of our society who are living as confined population. Aims: 1. To know the prevalence of xerophthalmia in different groups of confined population 2. To know the various clinical presentations of xerophthalmia in these population

Materials and Methods

Study setting: confined population of Raipur (Chhattisgarh). Confined population; Sample size: Male Prisoners of central Jail Raipur – 121, Female Prisoners of central jail Raipur – 75. Study Design: Cross sectional. Methods used in Study: 1. Clinical examination for eye signs of Xerophthalmia 2. Test for dry eye shirmer's test I and III and tear film break up time.

Results

Female: XN – 2.67%. X1A – 16%. X1B – 9.33%. XS – 1.33%. Male: XN – 4.96%. X1A – 28.1%. X1B – 14.1%. X2 + X3A + X3B – 6.61%. XS – 3.31%. WHO public health significance of Xerophthalmia. XN – 1%. X1A – non specific indicator. X1B – 0.5%. X2 + X3A + X3B – 0.1%. XS – 0.05%. Shirmer's test: normal range 10-30 mm/5min. Female: Shirmer's I and III mean value – 27.76 and 21.667% abnormal shirmer's I. 8% abnormal shirmer's III. Male: Shirmer's I and III mean value – 20.88 and 16.414. 13% abnormal shirmer's I. 10.74% abnormal shirmer's III. Tear film break up time: Female: Mean 23.08; 8% have abnormal T-BUT; Male: Mean 17.36; 13.22% have abnormal T-BUT, no much significant difference in wetting of shirmer's strip after 5 min in two sexes, no predilection between left and right eye because both eyes had almost similar observation.

Conclusions

Bitot's spot: 9.33% female; 14.1% male. Night blindness: 2.67% female; 4.96% male, Corneal xerosis 5.78%; corneal ulceration 0.83%; corneal scarring 3.31% in male, Shirmer's test abnormal 8% female; 10.74% male, T-BUT abnormal 8.09% female; 13.22% male, where Shirmer's value was reduced, tear film break up time was also reduced, no significant difference between the values obtained from both the sexes, no predilection between left and right eye in shirmer's and tear film break up time tests.

Key Words: Xerophthalmia, prevalence, confined population

Screening for Methicillin-resistant Staphylococcus Aureus Carriers among Individuals Exposed and Not Exposed to Hospital Environment and their Antibigram

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Respiratory Infection in Stroke Survivors – Prevalence and Risk Factors

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Introduction

The emergence of drug-resistant strains of Staphylococcus aureus, particularly methicillin-resistant S. aureus (MRSA), has caused a rise in incidence of community-acquired (CA-MRSA) and hospital-acquired (HA-MRSA) methicillin-resistant staphylococcal infections. Carriers of MRSA are not only at increased risk for developing infections with the strains they carry but also transmit MRSA between individuals. The anterior nares, throat, palms, and web-spaces are important reservoirs of MRSA. Aims: This study evaluated the influence of exposure to hospital environment on MRSA carriage. The antimicrobial sensitivity patterns of the MRSA isolates were examined.

Materials and Methods

Nasal, throat, palmar and web-space swabs were collected from 119 nursing students of the age group 18-23 years (exposed group) and 100 age matched pharmacy students (non-exposed group). S. aureus was identified and sensitivity testing of each isolate to the antimicrobials penicillin, vancomycin, teicoplanin, linezolid, erythromycin, clindamycin, cotrimoxazole, netilmicin, gentamicin, ciprofloxacin and tetracycline was carried out as per Clinical and Laboratory Standards Institute (CLSI) guidelines. MRSA was detected by cefoxitin disc diffusion test and by growth on oxacillin screen agar as per CLSI guidelines.

Results

The MRSA carrier rates were 11.8% and 4% in the exposed and non-exposed groups, respectively. Association of exposure to hospital environment with MRSA colonisation was statistically significant (p<0.05). All MRSA isolates showed sensitivity to netilmicin, linezolid, tetracycline, vancomycin and teicoplanin. Among the exposed group, 71.4% MRSA isolates were resistant to ciprofloxacin, 64.3% to cotrimoxazole, 64.3% to erythromycin, 28.6% to gentamicin and 21.4% to clindamycin. Among the non-exposed group, 75% MRSA isolates were resistant to ciprofloxacin, 25% to cotrimoxazole, 25% to erythromycin, 25% to gentamicin and 25% to

Conclusions

Exposure to hospital environment was found to be a significant risk factor for MRSA carriage. HA-MRSA isolates showed greater resistance toward antimicrobials compared to CA-MRSA isolates. This highlights the need for appropriate institution of pharmacotherapy in cases of HA-MRSA and CA-MRSA infections and control of transmission by carriers.

Key Words: MRSA carriers, HA-MRSA, CA-MRSA, antibiogram

Introduction

Stroke is a health problem worldwide and an important factor in morbidity, mortality and disability. Respiratory infection is one of the most commonly encountered complications among stroke survivors. Aims: To study: 1. the incidence of respiratory infection, 2] factors that promote respiratory infection, 3] Common organisms isolated, 4] duration of hospital stay among stroke survivors.

Materials and Methods

Tertiary hospital based prospective study on a cohort of 70 stroke patients was done in 1 month. The variables studied were Age and gender prevalence, Location of lesion, Whether on Ryles tube or not and its duration, Level of consciousness, Vascular risk factors and co-morbidities, Duration of hospital stay, Sputum culture and sensitivity [if available], Investigation reports. Statistical analysis was done using the obtained data.

Results

Out of the 70 patients studied, 41 had respiratory infection. Among 42 males studied, 62.5% and 28 females, 50% had respiratory infection. Mean age of males is 65.4 years and females is 71.2 years. The lesion is posterior in 76% of patients with respiratory infection and anterior in 40%. The mean GCS score was 8. Ryles tube was inserted in 89.65% of these patients for a mean period 12 days and among them 20% were unconscious. Co-morbidities like hypertension [93%], diabetes [89.65%], hypercholesterolemia [62%], COPD [31.03%], cardiac abnormalities [10.3%] were seen. Risk factors like family history [52%] and smoking [72%] were also noted. Common pathogens revealed in sputum culture reports were Klebsiella, E.coli and Gram negative bacilli. None of them showed sensitivity to Imipenem and Piperacillin+ Tazobactam. These patients had a mean hospital stay of 16 days.

Conclusions

Male gender, age more than 65 years, posterior lesion and those with lower GCS score showed greater preponderance for respiratory infection among stroke survivors. Those on Ryles tube had a significant risk for respiratory infection. Risk factors like hypertension, diabetes, hypercholesterolemia and smoking also contributed.

Key Words: Stroke, respiratory infection, Ryles tube

Resazurin Microtitre Assay (REMA) Plate – A simple, Rapid and Inexpensive Method for Detection of Drug Resistance in Mycobacterium

Tuberculosis

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Introduction

During the last decade, India is becoming one of the highest burden of TB in the world. MDR-TB and XDR-TB cases are also in rise. The emergence of MDR-TB highlights the need for drug susceptibility test (DST), patient management and drug resistant surveillance. A rapid and standardised method which is easy to perform and does not require expensive equipments is desired. Resazurin is one of the cheapest, rapid and simplest of the methods. Hence the study was undertaken. Aims: Comparison of REMA Plate method with the Standard Proportion Method using L-J medium as approved by Revised National Tuberculosis Control Programme (RNTCP) for Drug Sensitivity Testing (DST).

Materials and Methods

26 isolated strains of M. tuberculosis obtained from suspected patients were subjected to DST by 2 methods viz. REMA Plate and Proportion Method for the first line antitubercular drugs INH, RIF, STR and ETM. REMA plate method was performed in 7H9-S medium containing Middlebrook broth and supplements in 96 well microtiter plates. The results of REMA were obtained on days 7, 10 and 14 using resazurin. Any strain having an MIC equal or above the tentative breakpoint concentration was considered resistant.

Results

The sensitivity of REMA for the respective drugs was found to be 94.4%, 93.75%, 93.3% and 66.6%. The specificity of REMA for the respective drugs was found to be 100%, 100%, 45.5% and 35.3%. The cost of REMA Plate method came out to be half of that required for Proportion Method.

Conclusions

REMA can be considered as one of the most rapid and inexpensive method to find out drug resistance to INH and RIF and hence aid in the diagnosis of MDR-TB. ETM and STR, two drugs known to be difficult to test showed a low specificity.

Key Words: MDR-TB, resazurin microtitre Assay

Psoriasis: A Clinicoepidemiological Assessment with the Quality Of Life

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Introduction

Psoriasis is a common, genetically determined, inflammatory and proliferative lesion of skin. It has been evidenced that psoriasis is a serious condition strongly affecting the way a person sees himself and the way he is seen by others. Aims: 1. To determine the epidemiological characteristics of the disease in patients attending the dermatology OPD. 2. To assess the various clinical types of Psoriasis with respect to Psoriasis Area and Severity Index (PASI) score. 3. To assess the various clinical types of psoriasis with respect to Dermatology Life Quality Index (DLQI) score. 4. To compare the overall score pertaining to PASI vis-a-vis DLQI and thus seek to explore the relationship, if any between clinical severity and impact on

Quality of Life (QoL).

Materials and Methods

60 randomly selected psoriasis patients (with their due consent) were included in the study from among all the patients attending the dermatology OPD within two months. Detailed clinical profile of each patient was recorded. Psoriasis Area Severity Index (PASI) was used as a tool for the measurement of severity of psoriasis and Dermatology Life Quality Index (DLQI), a validated tool was used to assess QoL in patients with psoriasis. Data analysis was done using the Parametric test the 'r' test.

Results

Total sample size was 60 of which males constituted 58.33% (n=35) and females 41.67% (n=25). The mean age of the sample was 42.8 ± 14 years. A positive family history was found in 5% (n=3) patients. The most common site affected was lower limb. The most common type of psoriasis found was Plaque psoriasis (n=43). The highest percent mean PASI score (67.22) and the highest percent mean DLQI score (50%) was found for Erythrodermic psoriasis. By using the statistic 'r' test, a significant relationship was found to exist between PASI and DLQI (r=0.6).

Conclusions

Our study concludes that with the help of measures like PASI and DLQI, the clinical severity of the disease and the effect of disease on the QoL of the patients respectively, can be quantified objectively. There being a significant relationship between the severity of the disease and its impact on the patient's life; measures need to be taken to deal with the disease effectively, not only to achieve clinical cure, but also to deal appropriately with the psychosocial aspect.

Key Words: Psoriasis, epidemiology, clinical severity, quality of life.

Psoriasis and the Metabolic Syndrome - A Retrospective Study

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Introduction

Psoriasis, a chronic immune inflammatory mediated disease, can predispose patients to other inflammatory conditions like, insulin resistance, obesity, dyslipidemia, and hypertension-components that characterise the metabolic syndrome. According to the American Heart Association, metabolic syndrome is present if any three or more of the following are present: Blood pressure equal to or higher than 130/85 mmHg; Fasting blood sugar (glucose) equal to or higher than 100 mg/dL; Large waist circumference (length around the waist): [Men - 40 inches or more, Women - 35 inches or more, Low HDL cholesterol: Men - under 40 mg/dL, Women - under 50 mg/dL]. Triglycerides equal to or higher than 150 mg/dL. The importance of these diseases characterising the metabolic syndrome is that they may confer a greater risk for cardiovascular complications. Aims: To investigate the incidence of diseases those characterise the metabolic syndrome existing in psoriatic patients, retrospectively.

Materials and Methods

We performed a retrospective study by going through the

details of 108 patients with psoriasis treated in a tertiary care hospital in the last one year (2010) and filled in the details on to a proforma and analysed it using SPSS 16.0

Results

On analysing, it was found that 18 out of 108 patients (16.7%) had hypertension; 27 out of 108(25%) had Diabetes Mellitus; 24 out of 108(22.2%) had Hyperlipidemia; 2 out 108(1.8%) were suffering from Coronary Artery Disease, giving a total of 47 out of 108(43.5%) to be suffering from any one/more of the above mentioned diseases those characterise the metabolic syndrome.

Conclusions

It has been suggested that there is an increased risk of having diseases those characterise the metabolic syndrome in patients with psoriasis. By doing this retrospective study we have established a relation between the two and hence suggest that psoriatic patients be encouraged to correct aggressively their modifiable cardiovascular risk factors.

Key Words: Psoriasis, diabetes mellitus, hypertension, hyperlipidemia, cardio-vascular

Profile of Urological Problems in HIV Positive Patients
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Introduction

With the increase in Life expectancy of patients infected by Human Immunodeficiency Virus (HIV), associated urological problems are also becoming relevant and need emphasis.Aims: To assess the incidence of various urological problems in HIV+ patients and analyse the treatment given.

Materials and Methods

A retrospective cross-sectional study was conducted over the period from July 2009 to Dec 2010. There were 617 HIV+ cases admitted to our hospital, Kasturba Hospital, Manipal, a tertiary care unit. Demographic data of urological problems and the treatment strategies of 20 HIV+ patients are presented.

Results

Mean age was 43 years. Males were more common than females (18:2). Out of 20 cases; Urolithiasis 8, Genitourinary Tuberculosis (GUTB) 2, Parapelvic cyst 1, Squamous Cell Carcinoma Bladder 1, Ca penis 2, Renal abscess 1, Perinephric abscess 1 and Prostatic abscess 1, Lower Urinary Tract Symptoms (LUTS) 2, Prostate-rectal fistula 1. All received treatment as per the usual guidelines under universal precaution. Stone disease was the most common problem. It was managed by Percutaneous Nephrolithotomy (2), Ureteroscopic Lithotripsy (6). Metabolic work up was normal. GUTB patients were managed with Anti-Tubercular Treatment. Renal cyst was aspirated. The renal, perinephric abscess and prostatic abscesses were managed conservatively. Patients with LUTS and Urinary retention underwent Trans-Urethral Resection of Prostate. Ca penis was managed with partial penectomy. Cystectomy was offered to the bladder cancer patient, he died in post op because of Acute Respiratory Distress Syndrome. All were being treated with ART for HIV+ status.

Conclusions

As the number of individuals with human immunodeficiency virus (HIV) or AIDS increases, more cases involving the genitourinary tract and more patients in surgical practice will be encountered. The management of urological problems in HIV+ cases should follow the same course as in any other patient. The risk of HIV+ exposure during surgery should be protected with universal precautions. Options of management requiring major surgical exercises should be weighed vis a vis life expectancy of patient and exposure to health care personnel.

Key Words: Urological , HIV, exposure, surgery

Profile of Unnatural Deaths in Bhuj (Gujarat)- A Retrospective 3 years Study
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Introduction

The following study is done to know the leading causes of unnatural death in Bhuj,Gujarat.Aims: 1. To ascertain various aspects of unnatural deaths.2. To analyse the data of unnatural deaths.3. To find out age wise, sex wise, month wise distribution etc. From available data.4. To analyse the probable reason for the same.5. To find out remedial measures to bring down the incidence of unnatural deaths.

Materials and Methods

The present 3 years retrospective study is done in Gujarat Adani Institute of Medical Sciences, and G.K. general hospital, Bhuj. The material of the study consist of 1110 medico legal post mortems performed in G.K. general hospital , Bhuj, Gujarat during the period of last 3 calendar years (1st January. 2008 to 31st December. 2010).

Results

Out of total 1110 cases of post-mortems total 1021(91.99%) cases were found of unnatural deaths. The ratio of unnatural cases: natural cases= 12: 1. 358 cases were found of burns and 223 cases were of head injury while 97 cases were of regional injuries. Which also includes Electrocutation (29 cases), septicaemia (20 cases),Hanging (54 cases), Drowning (65 cases), Poisoning (128 cases), others (47 cases). Maximum victims were from age group 21 to 30 years (344 cases). There are 565 cases of male and 456 cases of female, that approximately shows the ratio of male: female=2:1. From total 1021 unnatural death cases 711cases were from rural areas and remaining 310 cases were from urban area. The present study reveals that burns 270 cases (75.42%) in females and injuries 257 cases (80.31 %) in males was the commonest cause of unnatural deaths.

Conclusions

The present study reveals that burns 270 cases (75.42%) in females and injuries 257 cases (80.31 %) in males was the commonest cause of unnatural deaths.

Key Words: Medico legal autopsies, unnatural deaths ,burns, injuries

Prevalence of Adverse Reaction In 1000 Blood Donors Of Dayanand Medical College & Hospital, Ludhiana
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Introduction

In our country, comprehensive laboratory tests are not possible, it is best to switch over to 100% voluntary donations as only voluntary non-remunerated regular donation is the safest. Blood donation process is usually safe and uncomplicated; occasionally donors experience adverse reaction during or after donation. Reaction to blood donation can deter voluntary donors for future donations. Aims: To find out the prevalence and categorise the severity of adverse reactions in whole blood donors and to study the factors determining these reactions.

Materials and Methods

1000 donors who donated blood at out-door camps were taken for the study. Healthy volunteers fulfilling the donor fitness criteria as per Director General of Health Services were made to donate whole blood, who had not donated blood earlier than 12 weeks. 450 ml of blood was withdrawn. All donors were observed before, during and after blood donation for signs and symptoms of adverse reactions. Vasovagal reactions were classified as mild, moderate and severe reactions. The data was statistically analysed.

Results

95% of the blood donors were male. The maximum number of donors were in the age group of 20-29yrs (47%) followed by 30-39yrs of age group (25.5%). 85% of the blood donors were above 60 kg of weight. 85% donors were repeat donors. Overall prevalence of adverse reactions was 6.07% in which mild reactions were 4.63%. Maximum adverse reactions were found in the age group of 20-29yrs i.e (45%) followed by the age group below 19yrs i.e (32%). Prevalence of adverse reactions in the females was higher and was twice (12%) as compared to males (6%) (p value<0.001). Donors below 60 kg were having slightly increased prevalence of adverse reaction than donors above 60 kg. First times donors had higher prevalence of adverse reaction (13%) as compared to repeat donors (5%), (p value>

Conclusions

Young age, female sex, low body weight and prior donation status determined adverse reactions. Careful handling of these factors can reduce reactions.

Key Words: Adverse reaction, voluntary blood donor, vasovagal reaction, outdoor camps.

Pregnancy and Delivery Among Young Women
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Introduction

Pregnancy among young women is a serious ordeal because the process of gestation proceeds in the conditions of organism functional immaturity, adaptable mechanism inadequacy and sexual development incompleteness. The inadequate puberty level, poor sexual education and culture, the frequent breaches of a diet, bad habits also affect the pregnancy and deliveries, on young mothers and their children health. That is why the problem of teenage motherhood gets the increasing urgency every year. Aims: The aim of the research is to carry out the analysis of the course and outcome of young women pregnancy.

Materials and Methods

Contemporary records of maternity hospital of the Perm regional clinical hospital were used as a material for research.

Results

The basic group (A) has been presented by 40 women younger than 19 years, the control group (B) by 20 women at the age from 20 till 30 years. The majority of young women had earlier beginning of a sexual life (14,925 years). 50 % of them were lonely. 77,5% young women are pupils of average comprehensive schools. All these may say about young women psychological unavailability to the birth and the upbringing of a child. Pregnancy of the teenagers became complicated with chronic fetoplacental insufficiency (55 %), partially because of tobacco smoking, what was typical for 20 % of young women. These may tell about young women physical and physiological unripeness. Newborns of the basic group had asphyxia in the result of prolonged labor. Asphyxia was met in the basic group 3 times often than in the control. Young women children have symptoms of perinatal lesions of CNS in the early neonatal period (15%), intrauterine growth retardation (17,5%), what didn't meet in the control group, their children are prematurely born.

Conclusions

The results of the undertaken research have shown that the complications of pregnancy and deliveries in young women considerably exceed those of women in childbirth at the age from 20 till 30. It shows the necessity of carrying out the sanitary-educational work propagandising healthy life style, the value of a family and marriage, already in an elementary school.

Key Words: pregnancy, delivery, young women, teenage motherhood

Serum Cholinesterase Estimation as Prognostic Value in Organophosphorous Poisoning
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Introduction

Organophosphorous poisoning is the most common problem among farmers in rural India. These compounds have gained popularity as a poison for suicidal purposes as they are easily available and are quite cheap. Aims: The aim of the study is to study the correlation between amount of poison consumed, time interval between ingestion of poison and cholinesterase inhibition and to determine whether serum cholinesterase levels have a prognostic value in cases of acute

organophosphorous poisoning or not.

Materials and Methods

Study comprises of 50 patients of acute organophosphorous poisoning out of which 36 were male and 14 were female patients admitted to Mamata General Hospital, Khammam. History was obtained from the patient regarding the type and amount of poison and sample of insecticide. Clinical examination was done. Then, patients were investigated for serum cholinesterase on admission before administration of atropine and pralidoxime and subsequently serial estimation of serum cholinesterase were done on second and third day before the patient was discharged. It was estimated by Kinetic calorimetric method using spectrophotometer (Clinicon 400)

Results

In our study there was no fixed relation between amount of poison and cholinesterase levels even with 20 ml of poison. But in clinically severe cases, initial cholinesterase levels were grossly depressed. In mild groups, there was increased 166 units on third day and 224 units in moderate groups, respectively. In no cases cholinesterase levels returned to normal on third day but took 4 weeks to return to normal. Patients with serum cholinesterase levels above 10-20% of normal activity recovered completely (84%). Serum cholinesterase activity below 10% of normal activity was fatal.

Conclusions

Very low levels of serum cholinesterase showed a bad prognosis. Serial estimation of serum cholinesterase has no prognostic importance. Prognosis is bad in patients of enzymatically very low activity.

Key Words: Organophosphorous poisoning, serum cholinesterase, atropine, pralidoxime

caesarean sections. Exclusion criteria: a) age <20 and >35 years ; b) patients with uncontrolled diabetes and hypertension. The mode of delivery of the present pregnancy was noted in patients who have undergone previous caesarean section and later the safe mode of delivery in terms of mother's and baby's safety, immediate post operative complications and patients compliance in terms of patients comfort and total expenditure will be compared

Results

Our study consists of 100 cases with previous LSCS. It was found that number of cases undergoing LSCS- 74%, VBAC-21%, vacuum assisted-3%, MTP-1%, preterm vaginal delivery-1%. Indications=previous LSCS-25: CPD-7, breech presentation-13; fetal distress-9, fetal bradycardia-1; PIH-5; twin pregnancy-1; oligohydramnios-1; anomalous baby-1; Rh negative-1. Non progression of labour-3. pulmonary hypertension and pulmonary embolism-1. previous LSCS is the most common indication

Conclusions

Patient's compliance is better, expenditure is less and safer mode of delivery is VBAC

Key Words: VBAC (vaginal birth after caesarean section), LSCS (lower segment caesarean section)

Various Predisposing Factors for Anaemia in Pregnancy at Rural College

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To Compare the Efficacy of Normal Vaginal Delivery vs Caesarean Section in Patients who have Undergone Caesarean Section

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Introduction

The incidence of caesarean section is steadily rising. During the last decade there has been two to threefold rise in the incidence from the initial rate of 10%. VBAC trial of labour is successful in 70-76% cases. Benefits of VBAC is decreased maternal morbidity, length of stay, blood transfusion and need for successive caesarean delivery in next pregnancy. Aims: 1) To check the safe method of delivery in patients who have undergone previous LSCS in terms of mother's safety. 2) To check patients compliance in terms of patients' comfort and expenditure

Materials and Methods

A total number of 100 patients that have come for delivery to our hospital were included in our study. Inclusion criteria: a) age 20-35 years; b) patients who have undergone previous

Introduction

Anaemia is commonest medical disorder in pregnancy and commonest indirect cause of maternal mortality. The relationship of anaemia to age of mother, parity, gestational age of pregnancy at the first antenatal visit and contraceptive use by the mother are significant factors whereas poverty, malnutrition, illiteracy, ignorance, religious taboos, superstitions, gender discrimination, early marriage, early and more frequent childbirth, poor antenatal checkup, home deliveries under poor supervision are important contributory factors specially in rural parts of India. Aims: Anaemia is commonest medical disorder in pregnancy and commonest indirect cause of maternal mortality. So we decided to study the various predisposing factor for anaemia in pregnant women coming to A.V.B.R.H and also to rectify the deficient haemoglobin level during pregnancy by correcting the underlying factor as per its prevalence.

Materials and Methods

A cross sectional prospective study was conducted among 200 pregnant women coming to Obstetrics and Gynecology department in A.V.B.R.H, a tertiary teaching hospital and its peripheral subcentres affiliated to JMNC. The collected data was analysed to ascertain the clinical relevance of the study.

Results

According to the peripheral picture, microcytic hypochromic anaemia (78.5%) is the commonest predisposing factor for anaemia followed dimorphic anaemia (5%), plasmodium vivax malaria (5%) sickle cell anaemia (3%), Parasitic infestation (3%),

B12 deficiency (2%),Thalassemia minor(0.5%),history of menorrhagia(1.5%),unknown cause (1.5%).Multigravidae(54%) were more anaemic than primigravidae(46%).Women not using methods of contraception(77.5%) showed higher grade of anaemia than in women using the same(22.5%).Women with vegetarian diet(70%) were more anaemia than those with non vegetarian diet(30%).Lack of education and employment and insufficient awareness of supplementation for iron and folic acid intake also contribute to the cause for anaemia.

Conclusions

It can be concluded by the study that poor dietary intake,low socioeconomic status of the patient, Illiteracy ,multigravida,spacing less than 2 years,caloric intake<80% of expected, vegetarian diet and unemployment,poor use of contraceptives, parasitic infestations, plasmodium vivax malaria were some of the common predisposing factors for anaemia in the

Key Words: Predisposing factors for anaemia, pregnancy

Variations in Automated Complete Blood Cell Counts Induced by Storage of Blood at Room Temperature

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Introduction

Complete blood count (CBC) is one of the most common investigations that clinicians request. However the results of CBC are affected by different factors such as the temperature and duration of incubation. Laboratories quite frequently receive blood samples which had been drawn over the weekend and are delivered to the laboratory up to two days later. In such scenarios one needs to decide whether such samples are appropriate to be processed or need to be rejected.Aims: This study was done to see if results obtained with automated cell counters are reliable when there is delay in transit. We determined the reproducibility of hematological parameters in blood samples stored at room temperature compared to baseline values when samples are processed within an hour of venepuncture.

Materials and Methods

70 venous samples collected in EDTA were processed using an 18-parameter automated cell counter. The samples stored at room temperature were processed at 30 min, 3, 6, 24, 36 and 48 hours. The mean percentage change of various hematological parameters from baseline (30 min) was plotted against time and the significance of the change in various parameters was calculated.

Results

Haemoglobin, RBC counts, hematocrit values and red cell indices were stable from time of collection of blood samples up to 48 hours. RDW significantly rose from baseline value after 3 hours up to 48 hours. The mean WBC count significantly decreased below baseline value after 3 hours up to 48 hours. Monocytes and lymphocytes were falsely raised while granulocytes were falsely decreased. The mean platelet count significantly increased above baseline values after 3 hours up to 24 hours and then stabilised. The mean platelet volume was stable up to 6 hours and then significantly increased above the

baseline values up to 48 hours.

Conclusions

Storage of blood samples at room temperature accounts for spuriously increased platelet counts, RDW, monocyte and lymphocytes counts and decreased leucocyte and granulocyte counts. A quicker method of transport of samples from wards to laboratories is mandatory to obtain more reliable results.

Key Words: Variations, automated, reproducibility, room temperature

Validation of Forearm Blood Pressure Measurement using Angela's Equation in South Indian Population

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Introduction

Forearm blood pressure measurement would be easier in an Indian setting of busy OPDs and increasing obesity. But they are known to be higher than the arm blood pressure values and could lead to unnecessary treatment. Therefore, the correction equation derived by Angela et al, which would help in the estimation of arm blood pressure from that of forearm would be useful. Our study was conducted to validate this equation among the South Indian population.Aims: To validate the correction equation for forearm blood pressure measurements derived by Angela et al, in South Indian men and women, including obese, normal and lean people.

Materials and Methods

A cross-sectional study of 150 members, stratified for mid arm circumference and gender were included. Blood pressure was taken at the arm and forearm levels with an Omron machine. Values were fed into the Angela's equation. 'p' and 'r' values were calculated to prove the validity of the equation.

Results

The mean systolic and diastolic values were $121 \pm 18 / 75 \pm 11$ mm Hg and $129 \pm 18/84 \pm 12$ mm Hg respectively at the arm and forearm levels. The formula was found to be applicable for systolic forearm BP correction, in all individuals, except in obese males, where 'r' was just 0.55. The equation, however, was found not to be valid in the correction of diastolic BP, except in the slim population.

Conclusions

Studies with larger sample size needs to be conducted and a new formula to be derived which is sensitive, specific and accurate.

Key Words: Forearm BP, Angela's equation

Understanding the Factors Influencing Patient Adherence and Self Management of Type 2 Diabetes Mellitus

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Introduction

Aims: To assess medication adherence and self management of people with type 2 Diabetes Mellitus. To determine the factors influencing their treatment adherence.

Materials and Methods

This descriptive study was done among 150 patients with type 2 Diabetes Mellitus admitted at a tertiary private hospital irrespective of the admission diagnosis. They were interviewed using a per-designed questionnaire which assessed their treatment adherence (Morisky Adherence Scale), belief of treatment effectiveness, family support, and treatment satisfaction. The data was analysed using Mann-whitney's test and chi-square test.

Results

Mean age of the subjects was 53.9 years, male:female ratio was 1:1. and 61% were illiterate or had less than primary education. According to Morisky Adherence Scale, 74 subjects (49.3%) had high adherence and 39 (26.0%) had low adherence to diabetes medication. With respect to self care only 25 (16.7%), 35 (23.3%), 33 (22.0%) subjects examined their foot, gave foot care and exercised respectively on all days in the previous week. High medication adherence was observed among males and literate subjects. But these were not statistically significant. Subjects who had high medication adherence experienced good family support than those with low adherence. This association was statistically significant ($p=0.039$). Satisfaction with treatment and belief of treatment effectiveness were similar among people with low and high adherence.

Conclusions

High medication adherence was observed in 49% of the study subjects. Less than a quarter subjects followed exercise, foot care and foot examination daily. Family support significantly influenced treatment adherence.

Notification, if a complaint against the violation of the Code of Ethics by a physician is filed with the MCI, the registration of that physician can be cancelled. Aims: To understand the degree to which consultants and medical residents regard common pharmaceutical marketing activities as ethically problematic and understand their interaction with Pharmaceutical companies and to determine the level of awareness regarding the revised Medical Council of India's (MCI) Code of Ethics (December 2009)

Materials and Methods

A questionnaire based survey was conducted among 100 consultants and 100 residents. The questionnaire mainly dealt with ethical issues regarding accepting sponsorships and individual interactions of physicians with Pharmaceutical companies and ascertaining the level of awareness regarding the MCI's revised code of ethics.

Results

Most residents (59.4%) and consultants (58.8%) did not consider the offers of small gifts such as pens, pads and free drug samples as ethically problematic. As the cost of gifts increased (dinners/travel for conferences), the number of responders who did not feel that it was ethically problematic decreased (Consultants 7%; residents 8.8%). 88% residents and 85% consultants felt that there should be a limit to such offers although 14.7% residents and 12% consultants admitted that it would cut down their travel. 72% of the doctors did not feel obliged to return such favors. 72% of Consultants were aware of the revised MCI Code of Ethics as compared to a meagre 28% of residents.

Conclusions

Most physicians do maintain a code of ethics with regard to accepting gifts and they felt that inexpensive gifts do not influence clinical judgement. Consultants were of the view that amended MCI code of ethics would not affect their clinical practice significantly.

Key Words: Ethics, pharmaceutical marketing, MCI Code

Understanding the Degree of Awareness among Medical Professionals Regarding the Ethics of Pharmaceutical Marketing Activities and Consequences of Implementation of the Revised MCI Code of Ethics

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Introduction

Unlike ordinary goods, the sale of prescription drugs doesn't take place directly between the producer and the consumer; rather, are mediated by the physician who prescribes a particular medication. Pharmaceutical sales practices are geared toward influencing physicians, that, when prescriptions are written, their drug is the first one that comes to mind. Keeping in mind the fact that medical professionals are getting influenced by the aggressive marketing strategies of the Pharmaceutical industry, MCI has recently amended its Code of Ethics in December 2009 which bans the acceptance of all kinds of gifts from Pharmaceutical companies. As per the

Transfusion Statistics in Patients undergoing Cardiac Surgery in a Tertiary Care Hospital

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Introduction

Blood transfusions play a major role in cardiac surgery. Presently maximum use of blood components is made in contrast to whole blood transfusions given previously. A detailed analysis of various blood components used in different cardiac surgeries needed to be assayed. Aims: To do the statistical analysis of different blood components utilised in cardiovascular thoracic surgery and determine if the present practice of transfusing all patients undergoing a cardiac surgery equally, is justified. We have defined baseline values for parameters like hemoglobin, platelet count and prothrombin time for which transfusions are actually indicated and checked if platelet transfusion predisposed the patient to post-operative infections as claimed by previous studies.

Materials and Methods

We have conducted a prospective observational study on 66 patients who underwent cardiac surgery in SGH, Pune. A standard transfusion of whole blood and fresh frozen plasma was given to all patients. Out of which one group received platelets and the other did not. We compared the pre and post-operative values of some parameters like WBC count, platelet count, haemoglobin, serum creatinine and studied the effect of transfusions on them.

Results

55.55% patients above 55 years of age received surplus amounts of transfusions. All patients were transfused whole blood and platelets irrespective of their pre-op haemoglobin and platelet count. The average pre-op haemoglobin of patients in our study was 12.2899g/dl and that of platelets was 232.7969x103/L which is exceedingly higher than the guidelines given by previous studies. There was no statistically significant difference between the pre-op and post-op values of serum creatinine and WBC count in our study. Also there was no significant difference between the two groups for the parameters witnessed.

Conclusions

From the above results we conclude that platelet transfusion did not predispose the patient to post-op infections. The decision to transfuse a patient should be based on his pre-op parameters rather than having a pre-fixed common strategy for transfusion to all patients.

Key Words: Transfusions, cardiac, platelets, infections, analysis

**Traditional Contraceptive Method
Use in Modern Sri Lanka: An
Explorative Study upon
Contraceptive use among Married Sri
Lankan Couples in Colombo, Sri
Lanka**

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Introduction

Public health statistics reveal that contraceptive prevalence rates in Sri Lanka are amongst the highest in the South Asia region, as recent estimates show a contraceptive prevalence rate of 68%. However, controversy still remains whether the fall in maternal deaths is attributable to on-going traditional contraceptive methods. Aims: The purpose of this study was to gain in-depth understanding of contraceptive methods used among married Sri Lankan couples. The following objectives were devised:- To identify and explore the factors that influence the choice of contraceptive methods -To identify the role of men in family planning decision making -To use thematic data analysis techniques to interpret raw data -To suggest recommendations for future public health interventions on the basis of findings obtained from this study.

Materials and Methods

A qualitative research design was adopted. Data was collected in Colombo General Hospital. Semi-structured interviews were undertaken with married men and women in the presence of a

Sinhalese or Tamil speaking interpreter. A total of 15 participants were recruited in the study. Participant observation and informal interviews enabled triangulation, thus improving the credibility of findings. Thematic Content Analysis enabled thorough analysis of raw data.

Results

One major issue emerged from the study findings, strongly contradicting existing literature. From the total study population, majority of respondents preferred traditional contraceptive methods, particularly 'rhythm' method. In addition to this none of the men included in the study believed that they had a role in family planning decision-making. Factors such as age and level of education did not affect the choice of method.

Conclusions

Current public health interventions are heavily reliant upon raising awareness of modern contraceptives. Despite this, findings from this study reveal that traditional contraceptive methods are still preferred. In addition, the lack of information received from male respondents indicates a need for assessing male attitudes and perceptions upon family planning. Interventions tailored to the specific requirements of married couples can only be implemented once these concerns are addressed.

Key Words: traditional contraceptive methods, Sri Lanka

**To Study the Pattern of Use and
Efficacy of Anti-diabetic Drugs in
Controlling Adequate Glycemic Levels
in Diabetic Patients in Navi Mumbai**

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Introduction

Diabetes mellitus has been a pandemic disease. Currently used anti-diabetic drugs are effective, however because of lack of compliance, clinical inertia, resistance, lack of exercise and dietary control leads to unsatisfactory control of hyperglycemia. In India, more than 50% of diabetic have poor glycemic control. Aims: To study the pattern of use and efficacy of anti-diabetic drugs in controlling adequate glycemic levels in Diabetic patients of a tertiary care teaching hospital in Navi-Mumbai

Materials and Methods

Cross-sectional observational study was done in 100 Diabetic patients and their prescribing pattern of anti-diabetic drugs and blood glucose level was obtained by ACCU-CHEK ACTIVE glucometer to determine glycemic control.

Results

Average number of anti-diabetic drugs per prescription was 1.40. Sulphonylureas were the most commonly prescribed class but Metformin (Biguanide) was the commonest prescribed individual drug among OHA's. FDC of Biguanide and Sulphonylurea was prescribed commonly. Mono-therapy dominated over Poly-therapy and there was higher percentage of use of Insulin in type 2 diabetics. Only 41 % of patients on anti-diabetic therapy were having controlled glycemic levels and there was a significant association of glycemic control in

diabetics taking anti-diabetic drug therapy with lifestyle modifications (p

Conclusions

OHA still dominate prescribing pattern but there was a shifting trend towards the use of Insulin in type 2 diabetes. Efficacy of anti-diabetic drugs was only 41% in achieving optimal glycemic control; therefore intensification of current drug treatment as well planning multiple drug interventions along with lifestyle modification is necessary.

Key Words: Inadequate type-2 diabetic control after drug use

To Study the Influence of Stress, Obesity & Habits on Body Weight among Medical UG Students

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Introduction

Obesity is emerging as a serious problem throughout the world, not sparing any age. Of the factors contributing to obesity, stress seems to be particularly important as it leads to irregularity in diet, lack of exercise and addiction. Medical education is a stressful course. It is seen that medical students undergo tremendous stress which along with bad dietary habits and addictions like smoking, drinking have serious effects on their body weight. Aims: 1. To assess the magnitude of stress in medical students. 2. To study the influence of obesity and habits on bodyweight of medical students.

Materials and Methods

A Cross sectional study was carried out in SDMCMSh, Dharwad. Data was collected on a pre-designed questionnaire among the students attending the medical school. Questionnaire: Part1 included assessing the stress levels using PSQ (perceived stress questionnaire). Part2 included risk factors leading to obesity. Students of all the Terms were included. The study was carried out for a period of 1 month. Incidence of Obesity was calculated using BMI. Significance of non-parametric factors influencing body weight, like diet, exercise and addiction was done by chi square test. Informed consent was taken from the study subjects and results were analysed.

Results

Our study consisted of 200 students (95girls and 105boys). It was found that there is direct correlation of stress with increase in academic year of study. Effect of Exercise on body weight was found to be statistically significant ($p < 0.05$), so was effect of smoking on body weight and BMI ($p < 0.05$). There is also significant statistical correlation between weight and BMI. Our study is in coherence with the study done by Sen Gupta and team (Indian Journal of Community Medicine JULY 2009) who also found a significant correlation between exercise and body

Conclusions

1. Level of stress increased with increase in difficulty of academics in medical education. 2. Exercise, Smoking and BMI

have significant effect on body weight.

Key Words: Medical students, stress, obesity, habits

Study of Prevalence and Identification of Strongyloides Stercoralis in Immunocompromised Patients

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Introduction

Strongyloides is an Intestinal nematode causing Sub-clinical infection in normal people with potential of causing disseminated infection in immunocompromised patients. Its auto infective cycle becomes hyper infection syndrome in immunocompromised patients causing Complications like Gastro-intestinal bleeding and respiratory distress Early diagnosis and therapy has marked impact on disease outcome. So, screening for strongyloides is mandatory in immunocompromised patients. Aims: This study was aimed at detecting the prevalence of Strongyloides stercoralis among immuno compromised patients by isolating the same from their stools. Various methods of detection of the parasites were compared and infection and duration of the diarrhea were correlated.

Materials and Methods

Saline and iodine wet mounts, Baermann apparatus method were employed for isolation of the parasite. Concentration of specimen was done by Formalin ether conc. Technique. A total of 50 immunocompromised patients were included in this study.

Results

The prevalence of Strongyloides among the immunocompromised patients was 2% as per the study. Wet mounts, after employing conc. Technique was found to give better results. Strongyloides was isolated from acute diarrhea.

Conclusions

As per the study, Strongyloides was present in 2% of immuno compromised patients. It is a deadly parasite capable of causing hyper-infection syndrome in immunocompromised patients terminating in fatal g.i bleeding and respiratory distress. So, prompt screening for strongyloides is mandatory for them for effective prevention and treatment of the complications. Early detection of strongyloides will be effective for the clinicians for earlier diagnosis and effective treatment. Even simpler techniques like wet mount provides sensitivity equal to the culture methods and this can be done in any laboratory.

Key Words: Hyperinfection syndrome

To Detect Structural Renal Anomalies and Bladder Functional Abnormalities in Children with Down's Syndrome

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Introduction

Down's syndrome (DS) is the most common chromosomal abnormality with a prevalence of 1.72 per 1000 births. Evaluation of co-morbidities is a routine practice of care. However, the American Academy of Pediatrics and the American College of Medical Genetics guidelines are silent on evaluation of renal anomalies; early diagnosis of which may decrease mortality and morbidity. This study was intended to evaluate associated renal anomalies and their contribution to morbidity. Aims: To detect structural renal anomalies and functional bladder abnormalities in children with Down's syndrome. We hypothesized that there will be an increased prevalence of urological malformations in infants with DS. The objective of our study was to include early screening for renal anomalies in all DS children

Materials and Methods

A cross sectional observational study was carried out in DS children aged 0-18 years, followed-up in a pediatric unit of a tertiary hospital. We enrolled 44 subjects after informed consent. Individuals were subjected to questionnaire for assessing bladder function and screened for urological anomaly with ultrasonography-KUB. Subject who showed abnormal ultrasound were subjected to DTPA scan. Patients with history suggestive of avoiding dysfunction were evaluated further with a micturating cystourethrogram

Results

We found 9 (20%) subjects to be associated with renal abnormalities of which 5 had Hydronephrosis, 1 had renal agenesis, 1 had renal calculi and one had a neurogenic bladder, VUR, PUJ obstruction and renal parenchymal thickening each. These results(20%) are higher than the previous study (3.2%) and normal population (0.4%). Limitations of our study are small sample size, asymptomatic subjects. Kidney functions in a symptomatic and other pathological changes in a symptomatic patients were not assessed

Conclusions

Renal and urological anomalies are important associated complications in children with Downs Syndrome and early ultrasound screening must be included in standard care for its diagnosis and treatment

Key Words: Downs syndrome, renal urinary tract anomaly, ultrasound KUB, screening, pediatrics

Pattern of computer and Internet Use among Medical Students in Coastal South India

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Introduction

The use of computers is increasing among medical students, therefore we carried out a crosssectional study in mangalore, India .Aims: Assessing the pattern of computer and internet use among both undergraduate and postgraduate medical students.

Materials and Methods

A total of 500 medical students 4 different medical colleges in mangalore participated in the study. 400 were undergraduates

and 100 were postgraduates/ interns. A pre-tested semi-structured questionnaire was used to collect data and data analysis was done using SPSS Version 11.

Results

The majority of students who participated in the study were from the age group 19-21 years constituting 34.6%. The computer was used for entertainment mainly by 1st and 2nd year students (69.5%) whereas 40% PG/Interns use it for general information and 31% for research activities. Majority of the PG/Interns (77%) were satisfied for computer assisted teaching while 20% 1st and 2nd year students were not. Majority of 1st and 2nd year students (50.5%) use most often to communicate socially while 21% Pre final year students use Internet most often to engage in work for classes. The use of E-mail was the most popular of internet services used by 87% PG/Interns.

Conclusions

A significant relationship was demonstrated between the year of study and the purpose of computer/internet use. As the students progress through their curriculum the use of computer for entertainment is declining and use for general information and thesis/ research work is rising.

Key Words: Medical education, social communication, gathering information

The Utility of Serum Amylase as a Marker for Acute Pancreatitis

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Introduction

Acute Pancreatitis (AP) is defined as an acute abdomen presenting with abdominal pain, and usually associated with raised pancreatic enzyme levels in the blood or urine as a result of inflammatory disease of the pancreas. AP may recur. Serum amylase estimation is the commonest biochemical test done to diagnose acute pancreatitis. It is technically simple and readily available. Normal serum amylase levels in healthy individuals is in the range of 20-160 U/L. Serum amylase test although being highly sensitive in detecting acute pancreatitis its sensitivity decreases as the disease progresses and it also has poor specificity. Aims: To estimate and study the utility and sensitivity of serum amylase as a marker for acute pancreatitis.

Materials and Methods

The retrospective study included case files of 165 patients with a primary diagnosis of Acute Pancreatitis out of which 30 case files were excluded because of inappropriate and incomplete data. All patients admitted with a primary diagnosis of acute pancreatitis, of age, above 18 years and below 80 years, during the period January 2008 to January 2010 were included.

Results

Acute Pancreatitis, among the total no. of cases (n=135), was found to be more common in males 111 (82.2%) than in females 24 (17.8%). Mean age of the patients was found to be 40.133 ± 13.146 SD, median and mode were 38.00. 79% of the patients belonged to the age group of 30-50, 27% belonged

to <30 age group and 29% belonged to > 50 age group. Among the total no. of cases (n=135) 108 (80%) patients had raised serum amylase levels, and the remaining 27 (20%) had serum amylase levels within the normal range. Also, 77 (71.29%) out of 108 cases had elevated serum amylase levels up to 3 days after the onset of symptoms. 31 cases had elevated serum amylase levels who presented to the hospital after 3 days of onset of symptoms.

Conclusions

Acute pancreatitis is more common in males, in the age group of 30 to 50 years. Serum amylase test has diagnostic accuracy and utility in the diagnosis of AP, especially within the 72 hours of onset of symptoms.

Key Words: Acute pancreatitis, Serum amylase

The Spectrum of Head and Neck Malignancies Evaluated By Fine-Needle Aspiration Cytology in the Adult Population

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Introduction

Fine needle aspiration cytology (FNAC) is one of the most valuable tests available in the initial assessment of the patient who presents with a mass in the head and neck region with a suspicion of malignancy or where a recurrence is suspected after previous treatment. The tissues which are most frequently sampled are lymph nodes, thyroid and major salivary glands. Aims: This study is done to evaluate the role of FNAC in palpable malignant head and neck masses and also to study their distribution. A correlation was done between cytology and histopathology whenever surgical specimens were available and to assess the accuracy, sensitivity, specificity, positive predictive value and negative predictive value in various malignant head and neck lesions.

Materials and Methods

The study material comprises the archival slides of 165 aspirates from the malignant head and neck swellings during the period of July 2009 to June 2010 (12 months) in the hospital's FNAC clinic both in the Govt. Wenlock hospital and KMC hospital, Ambedkar circle. The data analysis is performed using SPSS version 10.

Results

Totally there were 165 malignancies in head and neck region. Among these, there were 28 thyroid, 10 salivary and 111 lymph node cases. Histopathological correlations were available only in 56 cases. Of these, there were 12 thyroid, 3 salivary and 32 lymph node cases. The sensitivity, specificity and positive predictive value are respectively 93.47%, 100%, 100%, and false negative was 5.36%. There were no false positives. The diagnostic accuracy in case of thyroid was 91.6%, in lymph node cases was 90.62% and in salivary glands was 100%.

Conclusions

Concordance was accomplished in most of the cases. Histopathology is cumbersome and is achieved often at massive inconvenience to the patient if done merely to arrive at a diagnosis. FNA by contrast is simple, safe, convenient and an

accurate technique for tissue diagnosis and thus exceedingly efficacious.

Key Words: FNAC, histopathology, malignancy, recurrence

The Prevalence of Non-alcoholic Fatty Liver in Patients Attending Master Health Check Up

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Introduction

The prevalence of the Non-alcoholic fatty liver is increasing due to the increasing prevalence of diabetes, obesity and hypertriglyceridemia and hypertension but it is grossly under diagnosed because it is asymptomatic. The importance of its early diagnosis lies in the fact that it is reversible with the modification of the risk factors and thus avoiding possible evolution to chronicity and to liver cirrhosis. Aims: To find out the prevalence of non-alcoholic fatty liver in the subjects and to find out any significant association of the disease with the following risk factors: Age, Sex, BMI, Blood sugar level, Blood pressure, Cholesterol triglyceride levels and Liver enzyme levels.

Materials and Methods

Type of study: Observational analytical cross-sectional study. Sample size: 500; The study was done in normal subjects attending master health check up excluding the patients who consume alcohol. Fatty liver was detected by ultrasound and data regarding the risk factors was collected from the master health check up records. The prevalence of fatty liver in the sample was calculated. Chi-square test ($p < 0.05$) was used to find out any statistically significant association with the risk

Results

Prevalence of Non-alcoholic fatty disease in this study group was 18.4%. The prevalence was significantly higher in the age group 41-60 years (27.88%), in obese patients (BMI > 30) {58.62% (BMI 30-34) and 61.9% (BMI > 35)} and in patients with higher blood sugar levels (120-140 mg/dl (66.67%)). There was no sex predilection. There was an increase in the prevalence of the disease with increasing cholesterol and triglyceride levels and increasing blood pressure but it was not significant. Liver enzymes were elevated only in 69.56% of the patients with fatty liver.

Conclusions

Therefore in our population obesity and diabetes are major risk factors for Non-alcoholic fatty disease and the risk increases sharply with increasing BMI and blood sugar levels. This implies lifestyle modification to reduce obesity and proper control of blood sugar to keep it within the normal range are important to prevent the development of Non-alcoholic fatty disease and also for its reversal.

Key Words: Non-alcoholic fatty liver, BMI, blood sugar, blood pressure

The Predictive Value Of Mean Platelet Volume in Preeclampsia

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Introduction

Preeclampsia is a multisystem disorder of unknown etiology and unique to pregnant women after 20 weeks of gestation. It is a poorly understood disease process associated with pregnancy and with considerable morbidity and mortality. It may occur in 5-22% of all pregnancies. Even now a definitive predictor of Preeclampsia is unknown. Increase in platelet size has been found in patients with moderate to severe hypertension in pregnancy even in the presence of normal platelet count. Studies suggest that the fall in platelet count occurs before the rise in serum urate. A change in Mean Platelet Volume occurring prior to fall in platelet count may predict the progression to Preeclampsia before it is clinically apparent. Aims: Aim: Evaluation of the ability of mean platelet volume (MPV) in predicting the onset of preeclampsia in pregnant women. Objectives: 1. To determine the utility of measuring MPV in predicting the severity of preeclampsia. 2. To analyse the clinical profile of the patient with the other markers of preeclampsia, namely blood pressure and serum urea levels.

Materials and Methods

100 Preeclamptic and 100 Non-Preeclamptic women who attended the hospital during April to May 2010 are taken as the study sample. A retrospective study comprising of evaluation of complete blood reports and other factors such as serum urea levels and blood pressure is done. Data of the Preeclamptic women is compared with that of Non-Preeclamptic women.

Results

The study has found out that the Mean Platelet Volume is increased in 74.72 % of Preeclamptic women in their 2nd trimester i.e before the onset of preeclampsia. Study has also recorded that there is a decrease in the platelet count in Preeclamptic women in the 2nd trimester. Thus it is observed that there is a considerable increase in the values of Mean Platelet Volume before on the onset of Preeclampsia.

Conclusions

Study has shown the importance of Mean Platelet Volume estimation in predicting the onset of Preeclampsia. The study has concluded that the Mean Platelet Volume evaluation would serve as an important tool in predicting the onset of Preeclampsia when it is used in combination with evaluation of other important factors such as platelet count and serum urea assessment.

Key Words: Preeclampsia, mean platelet volume, pregnant women, evaluation, serum urea.

The Effect of Surface Finish on the Colour Stability of Heat Polymerised Acrylic Resin Material after Immersion in Common Beverages at Different Time Intervals: An In-vitro Study.

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Introduction

The effective demand for prosthodontic care is high with most partially edentulous mouths being rehabilitated with dentures made using heat polymerised acrylic denture base material. Heat polymerised resin has several advantages and disadvantages. Advantages include convenience, reparability, less wear of opposing teeth and restoration. Disadvantages include lower proportional limit, higher plastic deformation and staining and intrinsic discolouration. The discolouration of denture base material has always posed a perplexing problem to the clinician. It may result from several factors such as impurities incorporated during manufacturing or manipulation, technique variables that result in porosity, or a surface quality conducive to accumulation of debris that can lead to colour changes. The habit of daily intake of beverages like tea, coffee, cocoa and oral rinses like chlorhexidine several times a day tend to stain and discolour resins. Aims: The aim of the study is to evaluate the effect of surface texture on the colour stability of a conventional heat polymerised acrylic resin after immersion in common beverages.

Materials and Methods

Clear shade of the brand Trevalon heat polymerised acrylic resin selected to test the colour stability, because the instrument (spectrophotometer) used for taking colour measurement is based on transmission of light through the specimen. Preparation of the specimen- Specimen 5cm long, 1cm wide and 2cm thick prepared. A total 48 specimens made. Half of them were roughened using coarse sand paper (size 60). The remaining half were polished using pumice slurry. All the specimens were stored in distilled water at 37 °C. Then six of each (smooth and rough) were immersed in each of the staining solution and distilled [mineral] water. Three staining solution used: Cola, Tea, Coffee, Cola (Pepsi) was used without any dilution. Tea solution was prepared by mixing 15 gms of Tea (Tajmahal; Mumbai India) in 500 ml of boiling distilled water for 10 minutes. Coffee solution was prepared by mixing 15 grams of coffee powder (Nescafe; Nestle, India) in 500ml of boiling water for 10 minutes. Specimens were immersed in staining solutions and distilled water for 30 days at 37°C. Colour measurements were taken: Before immersion (baseline reading). After 1, 7, 15 and 30 days of immersion. Before each measurement, the specimen washed under running water for 5 minutes and blotted dry with tissue paper.

Results

Mean values and standard deviations of ΔE^* for intervals of staining and baseline for the different staining solutions were recorded. After staining there is clinically significant staining from Day 1 to Day 30 for the three staining solutions with a greater ΔE^* in rougher specimens as compared to smoother specimens. The value of ΔE^* represents relative colour changes, thus ΔE^* is more meaningful than the individual L, a and b values. The effect of staining solutions on colour changes of heat polymerised resin material was surface finish dependent. The results of the present study showed that -Tea, coffee and cola cause significant discolouration of heat polymerised acrylic resin material, Rough surface exhibits more staining than polished surfaces, Coffee exhibits more staining as compared to cola and tea.

Conclusions

1. Tea, coffee and cola cause significant discolouration of heat polymerized acrylic resin material. 2. Rough surface exhibits more staining than polished surfaces. 3. Coffee exhibits more staining as compared to cola and tea.

Key Words: Heat - polymerised acrylic resin, tea, coffee, cola,

surface finish , colour stability.

The Clinical Views of CPR among University Medical Students - A Questionnaire Study

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Introduction
Cardiopulmonary resuscitation (CPR) is an emergency procedure, attempted to return life to a person in cardiac arrest. It is indicated in unresponsive individuals with no breathing or only gasps. CPR aims at extending the brief window of opportunity for successful resuscitation without permanent brain damage. One of the key skills that medical students should develop during their undergraduate training is to be prepared for emergency life saving measures like CPR. The study may further be able to recommend means to organise useful awareness programmes, workshops and symposium on the identified issues. INDIA is a country with a large pool of patients and health-care professionals, yet the art of mastering accurate CPR intervention is in its infancy. Aims: •To evaluate the level of awareness of CPR among medical students; •To ascertain their interest and participation in CPR training programs; •To evaluate the knowledge regarding accurate and effective CPR procedural techniques ; at undergraduate level.

Materials and Methods

A cross-sectional study was performed on medical students of MBBS course of KMC, Manipal, who were willing to participate. The study duration was of 2- 3 weeks. The questionnaire has been validated by experienced professionals who are currently involved in teaching and clinical practice. The sample size is calculated by WHO Epi info software, the final value of which was 250. Descriptive statistics and multiple response analyses was conducted using SPSS 16 software (SPSS Inc, Chicago, Ill). A p-value less than 0.05 was considered significant.

Results

A total of 250 students participated. Among three categories of the questionnaire, students were excellent (>90% reciprocated with positive response) in first category in which questions were chosen regarding importance of CPR. Second category was, the main goal and accuracy of CPR intervention (20% answered excellently, 36% good and 44% gave poor response). Third, was regarding indications, methods and effectiveness of CPR. Most of them had sound knowledge (>47.2% responded excellently, 30% good and 22.8% gave poor response).

Conclusions

Students scored average and their knowledge was less than expected. Hence it is mandatory to educate students and enable them to master skills of CPR at the grass root level.

Key Words: Cardiopulmonary resuscitation, health-care professionals, cardiac arrest, emergency procedure

Susceptibility Patterns of 4th Generation Cephalosporins among Clinical Isolates of Pseudomonas Aeruginos in a Tertiary Care Hospital in North India

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Introduction

Pseudomonas aeruginosa is one of the leading agents associated with nosocomial infections and is often difficult to eradicate due to its innate ability to develop drug resistance. Infections caused by *Pseudomonas* are related to a significant increase in attributable mortality especially among in-patients. Owing to widely prevalent antibiotic resistance among *Pseudomonas aeruginosa* isolates, treatment of *P. aeruginosa* infections is a challenging task. In view of the recent introduction of fourth generation cephalosporins, we undertook this study to evaluate the susceptibility pattern of *P. aeruginosa* from our eco-geographical region, to the 4th generation cephalosporin. Aims: 1. In this study antimicrobial susceptibility pattern of the clinical isolates of *Pseudomonas aeruginosa* to 4th generation cephalosporin were determined. 2. A comparative analysis was made between the resistance pattern of the clinical isolates from indoor patient and outpatients

Materials and Methods

Forty eight isolates received during a period of 2 months, in the microbiology laboratory of our hospital, identified as *P. aeruginosa* by standard identification tests were subjected to anti-microbial sensitivity testing against cefipime using Kirby Buer disk diffusion test as per CLSI guidelines.

Results

Out of 48 isolates, 32(66.6%) were found to be resistant to cefipime. The rate of resistance was found to be 25 isolates out of 34(73.6%) among in -patients and 7 out of 14(50%) in out-patients. Also 10(31.3%) isolates were although sensitive to 3rd generation cephalosporin but resistant to cefipime. Besides, 16(50%) isolates were resistant to both classes of cephalosporins. Five isolates (15.7%) resistant to cefipime showed resistance to imepenem as well. None of the isolates sensitive to cefipime was resistant to imepenem.

Conclusions

This data suggests that there is a critical need to undertake more studies to assess the susceptibility profile of this organism to 4th generation cephalosporins and re-evaluate the sensitivity to other antibiotics as well.

Key Words: *Pseudomonas aeruginosa*, Cephalosporin resistance, fourth generation cephalosporin

Successful Coping Strategies against Sources of Stress applied by Undergraduate Medical Students of a Medical College to Overcome Psychological Morbidity

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Introduction

Medical students develop several coping strategies in the face of stress throughout their training due to various reasons, hence improving their learning and academic

performance. Aims: The objective of the study is to compare coping strategies applied by undergraduate medical students of Kasturba Medical College (KMC), Manipal to overcome psychological morbidity because of various sources and severity of stress in the course of medical studies.

Materials and Methods

A cross-sectional, questionnaire-based survey was carried out amongst the undergraduate students of the medical college at various stages of MBBS. The psychological morbidity was assessed using General Health Questionnaire (GHQ-12). A thirty one item questionnaire was used to assess the sources of stress and their severity. Coping strategies adopted was assessed using brief COPE inventory. Students of the first three years of MBBS were invited to take the questionnaire.

Results

The response rate was 77.2%. In first year, 'Vastness of syllabus' had the highest percentage of 72.1%. This was followed by 'Self-Expectation' with 63.1% then 'Performance in exams' and 'Portion covered in each exam', both having 61.0%. In second and third years, 'Less number of holidays' was commonest with 60.4% and 66.7% respectively. The second commonest stressor was 'Vastness of syllabus' indicated by 58.2% in second year and 52.9% in third year. Third in the list of second year was 'Self-expectation' with 52.5% while in third year 'Long preparation hours in practicals/clinics' had 51.0%. The three successful coping strategies were 'Active coping', 'Planning' and 'Positive Reframing' with a slight difference in order and percentage in each year. The GHQ-case prevalence was found to be 16.7% overall, considering a GHQ-case as a score of 6 and above. The GHQ cases varied from 26.5% to 8.0% to 13.5% in first, second and third year respectively.

Conclusions

The decreased level of psychological morbidity may reflect adjustment of medical students in the medical institution providing social and psychological support to improve the quality of life. However, for the slight increase in GHQ-cases in third year, additional support may be planned to help them deal with their worries about future. The successful coping strategies help the students deal actively with their stress.

Key Words: Undergraduate medical students, stressors, coping strategies, psychological morbidity

Study on Defence Mechanisms to Cope with Stress due to Stigma among People Living with HIV/AIDS Reporting at Medical College, Kolkata

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Introduction

2.39 million people in India are HIV positive at the end of 2009. People living with HIV/AIDS (PLWHA) face stigma from various sources. How they cope with the stress due to the stigma by Defence Mechanisms need to be studied. Aims: To find out the stigmatising pattern among PLWHA along with their stress due to stigma and assessment of defence mechanisms against the stress.

Materials and Methods

Observational, descriptive study with cross sectional survey

design was carried out for 2 months at APEX clinic in HIV outpatient department of Medical College, Kolkata on 3 fixed days a week among PLWHA reporting for treatment there. A total of 120 patients were interviewed with pre designed and pre tested proforma. The result was tabulated in MS Excel 2010 software and was analysed for proportions, descriptive statistics and tests of significance by SPSS 16.0 software.

Results

The percentage of patients, who faced stigma, feared of being stigmatised and not stigmatised are 27.5%, 69.2% and 3.3% respectively. The stigma was mostly from family members and neighbours. A total of 96.7% patients were stressed. Stressed patients using denial as defence mechanism were 33.6% of the total interviewed. Passive aggression, projection, somatisation are 55.2%, 56.9% and 70.7% respectively. Hypochondriasis, intellectualisation, isolation, rationalisation and undoing were reported by 56.9%, 53.4%, 36.2%, 39.7% and 62.1% respectively. Altruism, anticipation, humour were used by 62.9%, 94% and 78.4% of the study population respectively as defence mechanism.

Conclusions

Stressed population follow various defence mechanisms to cope with the stress. By assessment of the defence mechanisms, naturally predominant mechanisms in patients are identified and stress should be managed by promoting those particular defence mechanisms in patient's mind by Counselling. Proper guidelines for counselling can be established so that quick removal of stress is possible. If it is performed globally with a mass strategy along with awareness programs to reduce stigma, we can eradicate one of the HIV epidemics (HIV stigma) from the world and can give HIV patients a normal, tension free life.

Key Words: Defence mechanism, Stigma, stress, HIV/AIDS

To Study Effect of Pre-pregnancy Weight on Feto-maternal Outcome

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Introduction

The study is a new age effort on the pertinent problem of malnutrition in pregnancy in India as a holistic view of where not only is a patient's clinical features but the attitudes studied as well so as to adapt the results easily into practice in an acceptable preconceptional counseling alike western practices. Aims: Study of the effect of BMI on maternal complications like gestational diabetes mellitus, gestational hypertension, premature rupture of membranes, abnormal presentations, oligohydramnios, polyhydramnios and post partum haemorrhage and on fetal complications like intrauterine death, preterm delivery, postdatism and low birth weight. Study of maternal attitude, awareness and practices concerning pregnancy with emphasis non maternal BMI.

Materials and Methods

During the course of the study 500 patients in labor rooms and postpartum wards were subjected to detailed history and examination. Patients with other co morbid conditions were excluded. Women with documented first trimester weight and singleton pregnancy were assessed. These patients were divided into three cohorts low BMI (<19.5 kg/m²), normal BMI

(19.5-25kg/m²) and high BMI (>25 kg/m²).The various complications were correlated for different cohorts. Patients were also asked to fill a questionnaire on awareness and various practices followed during their pregnancy.

Results

High BMI was significantly associated with gestational diabetes gestational hypertension, abnormal presentations and increased incidence of operative delivery. Low BMI was associated significantly with higher incidence of low birth weight babies . Possible correlations were found between high BMI and polyhydramnios and premature rupture of membranes and low BMI was possibly correlated with oligohydramnios and post-partum hemorrhage .These were the complications which though had a statistically insignificant association with their respective BMI category but,had the highest number of cases confined to their BMI category. Also the baby weight was found to be directly proportional to maternal BMI. The awareness of the females regarding the impact of BMI on fetomaternal outcome was poor however level of motivation towards attaining a healthy pregnancy was good.

Conclusions

Maternal BMI has effect both on fetal and maternal outcome. Maternal practices need to be assimilated during planning towards aberrance of maternal BMI and its complications in form of preconceptual counseling in motivated patients.

Key Words: Pre-pregnacy, maternal BMI, feto-maternal, pregnancy complications, malnutrition

Effect of Isometric Exercise on Cardiovascular Parameters in Males and Females and their Association with BMI

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Introduction

Isometric exercise is an important modality in patients' rehabilitation among physical therapists. It has been reported to be effective in preventing a substantial loss of muscle mass and function during the period of recovery from an injury with joint immobilisation(Astrand et al., 1977; Banner et al., 1989).Since isometric exercises do effect CVS parameters it would be interesting to see the extent of its effect on pulse ,BP, ECG and determine how safe an exercise modality it can become in future in a successful attempt in life style modification. (Melrose, 1999)Aims: To determine the cardiovascular responses to upper extremity isometric exercises and difference between apparently healthy male and female subjects, and its correlation with Body Mass Index (BMI).

Materials and Methods

Study Design: Cross sectional study. Subjects: 100 medical students of Era's Lucknow Medical College and Hospital will be enrolled for the study. Method: Each subject will be subjected to 3 rounds of isometric exercises for a period of 4 minutes with periods of rest of 5 seconds. In between the subjects will be instructed to avoid Valsalva manouvre BP,Pulse ECG and anthropometric measurements recorded and analysed.

Results

Upper extremity isometric exercise has shown to increase cardiovascular parameters in previous studies. An increase in post exercise values is this study with some difference in response between the two genders and between subjects with different BMI's was seen.

Conclusions

In my study conducted on MBBS students we see an increase in the post exercise cardiovascular parameters with variations as per gender and BMI.Hence in future while considering role of isometric exercises in physiotherapy or as an alternative to dynamic exercises one should keep the above findings in mind.

Key Words: Isometric exercise, cardiovascular parameters , BMI, gender variation

Evaluation of the Immunomodulator Effect of Ashvagandha (Withania Somnifera) and Gokhru (Tribulus Terrestris)

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Introduction

Reactive oxygen species (ROS) generated in many physiological and pathological conditions and are involved disease origination. Withania somnifera used as an aphrodisiac, anti-inflammatory agent have shown to antioxidant activity modulating the immune response, increasing the expression of T-helper 1 (Th1) cytokines, as well as CD4 and CD8 counts, and natural killer (NK) cell activity. Tribulus terrestris is of use in genitourinary diseases and sexual stimulant but its antioxidant effect is unknown.Aims: To see the potential use of Ashvagandha and Gokhru in immunodeficient states like Alzheimer, Parkinsonism, and AIDS, and to assess the toxicity of the same.

Materials and Methods

1.Preparation of extract. Ashwagandha roots and Gokhru fruits were used to obtain an aqueous extract which was then dissolved in a drug vehicle (5% gum acacia).2. Experimental design:Acclimatised inbred albino mice (both sexes, 22-30 g) were used, Mice would be randomly divided into six groups I- VI having 6 mice in each group. The drug vehicle would be given in experimental control group (group I) and different dose of extract would be given in experimental drug treated groups (II – VI). Extract would be given orally to each mouse, daily in the morning. Change in body weight would be noted. For mechanistic study; spleen antioxidant status would be examined on 7th day and 15th day of the treatment. For toxicity effect, the mice will be observed after 15 days, sacrificed and the organs section would be evaluated under microscope. 3.Assessment of Antioxidant status: Spleen excised and processed to obtain a homogenised mixture that was used in the assessment of level of lipid peroxides, superoxide dismutase (SOD) activity, catalase activity, reduced glutathione (GSH) and the total protein content. 4. Histopathological examination of liver, spleen and thymus. 5. Immunological study

Results

The results show increased, catalase, SOD, and reduced

glutathione activity, growth of lymphoid organs, proliferation of lymphocytes, blastogenic response

Conclusions

The immunomodulatory action of Ashvagandha and Gokhru can be successfully utilised in immunodeficient states after its evaluation on human models.

Key Words: Immunomodulatory effect of Ashvagandha

Evaluation of Prescribing Trends and Rationality of Use of Oral Proteolytic Enzymes

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Introduction

Irrational prescribing patterns are rampant and increasing day by day. There are considerable doubts regarding absorption and the anti-inflammatory action of proteolytic enzymes when given orally. We hypothesize that in India "Irrational prescribing proteolytic enzymes is rampant without strong evidence of their efficacy" Aims: 1.To assess the rationality of prescribing of these drugs using a questionnaire for the prescribing doctors 2.To review prescribing trends of proteolytic enzymes in Outdoor patients suffering from any inflammatory disorders in orthopedic department in a tertiary care hospital

Materials and Methods

1.Knowledge of 50 doctors (15 from Orthopedic, 15 from Gen.Surg, 10 from Obstetrics and Gynecology, 5 each from E.N.T and Ophthalmology depts.) regarding the rational use of proteolytic enzymes was assessed by using a questionnaire. 2.Prescriptions of 100 patients receiving proteolytic enzymes in ORTHOPAEDIC OPD were analysed.

Results

Proteolytic enzymes such as serratiopeptidase, trypsin and chymotrypsin are widely prescribed in the treatment of soft tissue injury and fractures but only as an adjuvant to NSAIDs . Doctors are prescribing these drugs without adequate knowledge about its pharmacological properties and their cost. Prescription of these drugs is influenced by promotional marketing by medical representatives and not on evidence based medicine

Conclusions

There is a need to educate the prescribing doctors on the principles of rational use of medicines and to conduct randomised double blind controlled clinical trials to prove the efficacy of oral proteolytic enzymes in therapeutics.

Key Words: Proteolytic enzymes, review, analysis, irrational

Evaluation and Comparison of Lipid Profiles and Aerobic Fitness in Software and Non Software Professionals

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Introduction

Physical inactivity is a major risk factor for developing coronary artery disease. It also contributes to other risk factors, including obesity, high blood pressure, and diabetes. Modern life style has proven to be the stimulus for the growth of heart diseases among the young professionals. Aerobic fitness indicates one's capacity to undergo strenuous work. Hence it can be used to access one's lifestyle indirectly. A major public health challenge at the moment is to tackle sedentary lifestyle, to prevent obesity and thereby to enhance health and well-being. Aims: Our study is aimed to understand the interplay among the lifestyle habits, weight, physical activity and aerobic fitness among Software and Non-Software Professionals.

Materials and Methods

The study groups included 50 persons as software professional (age 28±7 years) and 50 sex- and age-matched non-software professional as a control group (age 28±6 years), with no known history of any disease. The study has got the approval from Institutional Ethics Committee; Informed Consent was obtained from every individual. Using an in-house designed questionnaire, background information was gathered from the subjects. All subjects underwent a clinical examination; weight, height, blood pressure and waist and hip circumferences have been measured. The lipid profile of every individual was done using standard kit method in the semi auto analyser. Peak expiratory flow rate was examined with peak-flow meter. PFI was measured by Harvard step test. VO2 max was measured indirectly by Queen's College step test. The data obtained was analysed for its statistical significance by one way ANOVA using SPSS.

Results

The lipid profile had a significantly healthier pattern among the non-software professionals as compared to the software professionals. Aerobic fitness is one of the non invasive and simplest parameters which help in accessing one's fitness. Aerobic fitness was observed higher in non-software professionals against the software professionals.

Conclusions

Hence, we conclude that major public health challenge at the moment can be tackled by improving aerobic fitness and modifying the lifestyle, so as to prevent obesity and thereby to enhance health and well-being.

Key Words: Physical Fitness Index, VO2 max, PEFR, Lipid Profile.

Etiological and Clinical Spectrum of Pancytopenia based on Bone Marrow Examination and Case Records- A Retrospective Study.

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Introduction

Pancytopenia is a common entity seen in clinical practice. A few key symptoms and signs, which, when coupled with peripheral blood smear; can help the clinician to arrive at a diagnosis for the patient's condition. Diagnosis can be confirmed by a bone

marrow examination. Aims: To determine the spectrum of etiology and clinical presentation of pancytopenia by conducting a retrospective study of case records, peripheral smear and bone marrow aspiration findings.

Materials and Methods

Case records, blood smear reports and bone marrow findings of patients presenting with pancytopenia who fit the inclusion criteria during the period of January 2005 to December 2009 were analysed. Relevant history, physical and systemic examination and hematological parameters at presentation were recorded as per standard performance. The distribution of etiology, clinical presentation of pancytopenia, quantitative data such as age, blood levels etc were summarised using descriptive statistics.

Results

During the period of 5 years there were 134 cases of pancytopenia at presentation for which bone marrow aspiration/biopsy was done. The mean age of presentation of pancytopenia was 28 years. Male to female ratio was 1:1.6. The etiological break up was according to the following order – megaloblastic anemia (46.27%), leukemia (20.15%), aplastic anemia (9.7%), hypersplenism (7.46%), infections (6.42%), myelodysplastic syndrome (5.97%) and HIV (3.37%).

Conclusions

The commonest cause is megaloblastic anemia, which is a curable condition. The second commonest cause is leukemia, which needs timely intervention for better prognosis. A small proportion of the causes are easily diagnosable infective etiologies (malaria, typhoid fever) which only need a sound knowledge about the endemicity.

Key Words: Pancytopenia, etiology, clinical presentation.

Ethical issues and Medico legal Awareness-How Prepared are Indian Medical Professionals: Results from a Survey among Health Care Professionals from a Rural Tertiary Care Hospital of India

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Introduction

The term medico legal has gained a lot of importance in the past years after the passage of the Consumer Protection Act in 1986. Although forensic medicine and medical jurisprudence is the part of curriculum during the second year of medical school in India, still many interns and residents lack the knowledge about medico legal issues. Aims: The aim of the study was to assess the awareness regarding medical ethics and medico legal problems among interns, residents, doctors and paramedical staff at a rural medical college from India.

Materials and Methods

The study was conducted in the Rural Medical College (RMC), Loni, India. Rural Medical College and the associated Pravara Rural Hospital is a recognised institution for imparting the medical education, both at under graduate and post graduate level. Pravara Rural Hospital is a tertiary level health care centre

attached as a teaching hospital of RMC, Loni. The study population consisted of 58 doctors, 60 interns, 60 post graduate students and the same number of paramedical staff. The sample was selected by stratified sampling technique. The medical professionals surveyed belonged to various departments of the hospital and teaching college. A pre-designed, pre-tested self administered questionnaire in English was devised to collect data. The tool used had two parts; 1) to obtain demographic data i.e. age, academic qualification, work experience etc. 2) Legal terms, basic rights, fundamental duties, admission/transfer/ discharge/ death, legal control, medico-legal cases, with total 27 knowledge items. Data were recorded anonymously, and confidentiality was maintained; only age, sex, education was known. Results were analysed statistically using appropriate test like Z test and Chi square test. Microsoft Excel and statistical package statistiXL were used for the same. P values less than 0.05 were considered as statistically significant.

Results

Overall knowledge of medical ethics and medico legal issues among our residents and interns had shown a poor picture.

Conclusions

The prevalence of certain misconceptions and void in the knowledge about medico legal issues can be done away by giving repeated trainings to them

Key Words: Medical ethics, medico legal, awareness, medical professionals

Estimation of Body Mass Index in Children up to 2 Years of Age as Per WHO Standard Body Mass Index Charts in Urban Healthy Children in a Tertiary-care Hospital

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Introduction

Body Mass Index (BMI) is a number calculated from a child's weight and height. BMI is a reliable indicator of body fatness for most children and teens. Aims: Obtaining the BMI of the children from the anthropometric measurements and comparing it with the WHO Standard BMI chart for paediatric healthy children up to 2 years of age.

Materials and Methods

The study was conducted over a period of approximately 12 weeks. 800 children who met the inclusion criteria were selected and their weights and recumbent lengths were measured after thorough physical examination. There was an interval of three months of age between each group. Thus, there were 100 children in each group, out of which 50 were males and 50 were females. The BMI of these children was calculated from the anthropometry data taken and was compared with the WHO Standard BMI chart for children up to 2 years of age. The BMI of either sex was also compared in the study conducted.

Results

We found out that if we compare the BMI of Indian children with the WHO Standard BMI chart; most of the children lie below 85th percentile and a very meagre percentage of children lie between 85th to 97th percentiles or above 97th percentile. After applying the t-test for equality of means to compare the significant difference in the BMI's, it was observed that in the age groups 12-14 months and 15-17 months, there was significant difference ($p < 0.05$) in the BMI of males and females while in the remaining groups i.e. 0-2 months, 3-5 months, 6-8 months, 9-11 months, 18-21 months and 22-24 months there was no significant difference in the BMI between males and females ($p >$

Conclusions

In this contemporary sample of the children coming to the Well Baby Clinic, distributions of height, weight and BMI differed from those of children in the international growth references. Determining the validity and applicability of an existing growth reference and developing a reference based on a national representative sample are important public health functions.

Key Words: BMI, healthy, upto 2 years

Epidemiological Study of Diabetes in Urban Area

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Introduction

The prevalence of diabetes is reaching epidemic levels worldwide. The WHO estimated that number of people with DM is expected nearly double by 2030 compared to 2000 values, due to population aging and urbanisation. India will remain ranked first in Diabetes till 2025. Majority of the people with DM in developing countries are in age group of 45 to 64 years. Individuals adjust their lifestyle within the frame work of his cultural influences, economic status, knowledge and resources regardless of clinical recommendations. Knowledge is greatest weapon in fight against Diabetes. Information helps people to assess their risk of diabetes, motivates them to seek proper treatment and care, and inspires them to take charge of their disease. Keeping this in mind, this research will assess risk factors influencing the disease process in prevention and control of the disease. Aims: 1. To assess demographic profile of study population in urban area 2. To examine association between socio-demographic profile and risk factors associated with diabetes.

Materials and Methods

A Cross-sectional study was carried out in urban field practice area, Department of Community Medicine, SDMCMSH, Dharwad. Data was collected on a pre-designed and pre-tested questionnaire among patients attending the urban centre OPD. Questionnaire has two parts. Part 1 includes Socio-demographic profile, Part 2 includes risk factors influencing diabetes. Those in age group of 30-65 years were included in the study. The study was carried out for a period of 1 month. Chi-square test and other appropriate statistical tests were used to analyse the data. Informed consent was taken.

Results

In our study, the majority (65%) were females. Sex-wise age distribution was not significant. Hindus formed majority in this study (68%). Sex-wise distribution of occupational status was

statistically significant ($p < 0.05$). Sex-wise distribution of alcohol and tobacco usage was statistically significant ($p < 0.05$). Our study differs from that of A Ramachandra et al where males were majority. Our study also differed from this study in that family history was significant in diabetics ($p >$

Conclusions

Life-style and behavior have significant association with occurrence of diabetes mellitus.

Key Words: Diabetes, risk factors, socio-demographic profile, urban slums

Effectiveness of Counselling on Knowledge, Behaviour and Practices Regarding HIV-AIDS among Clients Attending 'Integrated Counselling and Testing Centre' (ICTC) of a Tertiary Hospital in Delhi

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Introduction

Despite the available counseling services in the ICTC centres, a comprehensive evaluation of the effectiveness of the counseling will give us an understanding of the lacunae and help in improving counseling services. Aims: To assess the knowledge, attitude and behaviour practices regarding HIV-AIDS among clients coming to the ICTC Centre, the relationship between the socio-economic and demographic characteristics with the knowledge and practices regarding HIV-AIDS and changes in awareness and practices after counseling at ICTC and find out any difficulties and suggestions

Materials and Methods

This is a cross-sectional interventional study. PERIOD: Two months in May- June 2010. AREA: ICTC Centre, Room 276 and 281 MAMC Campus New Delhi. SAMPLING: 200 clients attending ICTC centre, MAMC, New Delhi. The individuals were interviewed using a pre-tested and pre-designed questionnaire after taking an informed written consent, before and after counselling. Changes in knowledge, attitude and behaviour practices would be assessed using McNemar's chi square for qualitative variables between pre and post counselling

Results

Out of 200, 129 were Males and 71 were females, with mean age 28, three fourth of all being aged between 15 to 45 yrs. Mean per capita income was Rs.3094 and Mean family income Rs.14097 and one third were illiterate another one third were high school drop outs half were daily wage earners and around one fourth worked at home. Substantial increase in knowledge was seen in differentiating between HIV and AIDS, domestic modes of transmission, maternal transmission, causative agent, high risk groups and availability of drugs. Improvement is directly related to educational background, in individuals involved with society based occupations. Females were found to be more aware in all areas except high risk groups

Conclusions

Improvement in knowledge in all spheres of HIV-AIDS control saw appreciable rise after completing a counselling session. Depth of knowledge of individuals and its relation with

socio-economic and demographic characteristics is established. Evaluation of this kind through a questionnaire is proposed after every counselling session and the shortcomings be corrected then itself making the ICTC centres more effective and efficient

Key Words: ICTC, HIV counselling, VCTC, HIV awareness

Effect of Second Generation Antihistamines on Pulmonary Function in Bronchial Asthma: A Single Blind Cross-over Clinical Trial

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Introduction

Bronchial asthma is chronic disease affecting around 8% of Indian population. Not only the incidence but also the complexity of management of the disease is increasing. Histamine plays a pivotal role in allergic inflammation forming the rationale of use of anti-histamine in asthma. But the evidence available is not conclusive. In this study we have evaluated the effects of the second generation anti-histamine on pulmonary function and psychomotor function. Aims: To evaluate the effects of second generation H1-antihistamine cetirizine on pulmonary function and psychomotor function when given as add-on therapy with inhalational corticosteroids and beta agonists to patients with moderate to severe persistent bronchial asthma

Materials and Methods

The study was done in spirometry lab during November-December 2009. 20 patients were recruited from respiratory clinic. In a single blind fashion, 10 randomly selected patients were given cetirizine 10mg OD and 10 were given placebo. After obtaining informed consent, a baseline spirometry and psychomotor tests were done. Drug was given and test was repeated after 2 hours. Patients were advised to take one tablet a day for 2 weeks. The tests were repeated at the end of first and second week. After a wash-out period of 1 week, a second baseline test was done. The crossover of drug was done and tests were repeated. Compliance was monitored by regular telephone reminders and returning of empty blisters. The data was grouped separately by simple arithmetic. The analysis was done using SPSS 17.

Results

There was significant improvement in the pulmonary function. The p values were 0.0048 and 0.02 for FEV1 and FVC respectively at end of first week, and 0.0017 and 0.005 for FEV1 and FVC respectively at the end of second week in comparison with placebo. There was no significant change in psychomotor tests such as audio and visual reaction time. Positive behavior of patients like getting the prescription of cetirizine from physician after completion of study reemphasizes on the results.

Conclusions

The use of anti-histamine in treatment of asthma as add-on therapy improves pulmonary function and the sedative effect is also beneficial to the patients who are sleep deprived due to disease.

Key Words: Cetirizine, bronchial asthma, spirometry, reaction time

Perceptions and Practices of Climate Change amongst College Students in Coastal South India

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Introduction

The effects of climate change, its impact on daily life is for all to see. Rather we experience it daily. The challenge of Global Climate Change (GCC) and its impact on health has been studied to some degree though this field of research is still in an early stage of growth. The youth can slowly incorporate changes in daily life that helps to mitigate the damage and safeguard their future. Aims: To explore the perception of college going students towards climate change and gauge their response to the same.

Materials and Methods

The sample size of 375 comprised of college students of various streams; health sciences, engineering, business management and social work in Mangalore (Coastal South India).

Results

Burning fossil fuels, industries and factories are the major contributors for climate change as per both group of students (93.2% and 91.4% respectively) wherein rising sea levels is the most significant outcome of climate change (P value 0.001). Planting trees and saving water are done significantly more by the non science group (P value 0.001, 0.03 respectively). All students seemed uncertain as to what extent 'the barriers' mentioned in the questionnaire applied to them. The opinion on each barrier its reasons are equivocal.

Conclusions

An educational intervention whereby the problem, its concept, affected parties and its effect on overall life would prove valuable. The effect is expected to cascade up from the grass route to the international stage.

Key Words: Global climate change, global warming, opinion, barrier

Effect of Melatonin on Lymphocyte in HIV Patients

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Introduction

Since melatonin (N-acetyl-5-methoxytryptamine) was first isolated in 1958. Lot of studies suggest melatonin shows lymphoproliferative action via MT2 (mainly) and MT1 receptor. In recent years much attention has been devoted to the possible interaction between melatonin and the immune system. Melatonin has significant immunomodulatory roles in immunocompromised states. Aims: If melatonin causes lymphocyte proliferation in immunocompromised patient e.g., in (HIV patient) it may then prevent opportunistic infection and

prolong the life of HIV patients .

Materials and Methods

The study included 22 HIV+ve subjects chosen randomly from ART centre of SSH (Institute of Medical Sciences, Banaras Hindu University, Varanasi) in which 11 subjects are on antiretroviral therapy(ART) and 11subjects are pre ART (age from 20 yrs to 35 yrs) .Concanavalin –A(con- A) as mitogen(T–cell selective) for comparative study with melatonin. Controls subject who were not suffering from any disease were include in the study.

Results

The blastogenic response of the melatonin is higher than con A in preART cases 1.051464 times and in ART cases 1.274476 times higher (P<0.05). On the other hand the cell cultured with con A showed attenuation .Average Stimulation Index of melatonin in preART cases is 1.093393 and in ART cases is 1.107771 (means 1.01315times higher than

Conclusions

The in-vitro blastogenic response of the peripheral lymphocyteshowed a better response to melatonin in subjects who undertook anti retro viral drug therapy than the pre-treated group.Melatonin may thus be used as rational treatment of HIV patient along with antiretroviral therapy.

Key Words: Melatonin, immunocompromised(HIV) patient, lymphocyte, blastogenic effect, prolongs life

Gender Differences in the Risk Factors, Clinical Profile, Management Practices and Outcomes of Acute Stroke

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Introduction

The incidence of stroke is projected to increase globally, with a magnified increase in women. Also, women may have higher stroke severity, are more likely to present with atypical stroke symptoms, and have a higher mortality rate when compared to males. Aims: To analyse possible sex differences in patients suffering first-ever acute stroke taking into account the vascular risk factors, cause of stroke, clinical picture, and outcome.

Materials and Methods

74 patients with first-ever acute stroke were analysed in this observational study. Stroke was diagnosed clinically by CT scan, data regarding behavioural risk factors were recorded by an interviewer administered questionnaire. Anthropometric and biochemical measurements were taken.

Results

Mean age at first stroke was higher in women (62.7±11.5 years versus 54.0±12.8 years in males; P=0.0033) and women more frequently suffered from hemorrhagic stroke (38.9% versus 16.7% in men, P=0.0359). More frequent in women were history of hypertension (61.1% versus 30.6% in men, P=0.0088) and lack of physical activity (86.1% versus 36.1% in men, P<0.001). Less frequent in women were alcohol use (0.0% versus 47.2% in men, P><0.001) and tobacco use (38.9% versus 69.4% in men, P=0.0044). There were no gender differences in

the management practices of stroke. Women also more frequently suffered from severe disability (38.9% versus 16.7% in men, P=0.0359) and mortality in women was 5.6% versus 8.3% in

Conclusions

Mean age at occurrence of first ever acute stroke is higher in women and the severity of stroke is greater in women compared to men. The important gender differences in the risk factor profile will help in forming specific preventive strategies in males and females. Improvement of hypertension control and increasing the level of physical activity during work and leisure time in women would be of benefit, while in males, focus should be on the reduction of tobacco and alcohol use.

Key Words: Gender differences in stroke

Effect of Electronic Devices & Career Stress on Upcoming Younger Generation making them Prone to Lifestyle Disease with Special Emphasis on MODY & CAD

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Introduction

Effect of electronic devices and career stress on upcoming younger generation making them prone for lifestyle disease with special emphasis on MODY and CAD.Aims: To identify lifestyle problems in younger PROFESSIONAL MEDICAL COLLEGE STUDENTS and to study the modifiable risk factors , to create an awareness and preventive measures from peer side.

Materials and Methods

Material:Private medical college students from 1st year to 3rd year-400. Method Collection of data using a detailed Proforma prepared according to the aims and objectives mentioned above incorporating the following important points. Educational, occupational and economic background of parents and siblings Presence of electronic devices-(usage detailing number,type,time,physical activity) like sports and exercise. Social interactions including social responsibility towards society. Food habits, snacking and type of snacking. Family history of lifestyle disorders especially CAD , MODY and stress related disorders. History of peer pressure and parental pressure. Basic investigations including BMI will be used to categorise more disease prone group and worked up in detail.

Results

All entries have been analysed statistical details and inputs from teachers point of view have been used for formulating acceptable strategies for awareness and prevention from a students point of view. . The statistics is as follows.1. Out of the 380 students surveyed,59.47% are overweight or obese-GROUP A 2. 35.2 % normal or underweight-GROUP B 3.73.3% use electronic devices in the A category 4.53.3% in B category 5.82.3% have stress factor in A group 6.27.2% stress factor in B 7.70.89% snack in group A 8.65.9% snack in group B 9.17.6% have family history of obesity in group A 10.15.6% have family history of obesity in group B.Our study on hostellers shows the increase in the incidence for overweight and obesity, who also indulge in electronic devices and snacking as substitute for lack of intelligence, interest and social support. Now this is leading

to an epidemic of lifestyle disorders where the genetic process is made to manifest. The root of the problem needs addressing and expert suggestions.

Conclusions

The result of the study will be discussed from my point of view as a medical student and a young generation who will face the problem. With these strategies we as medical college students can modify our lifestyle for better healthy living and; be a role model to motivate our patients and bring awareness through health education for betterment of community.

Key Words: MODY-CAD-electronic devices-modifiable lifestyle

Effect Comparison between Two Different Aids used for Health Education of School Children

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Introduction

Many health problems in India are persisting not because of lack of availability of treatment but because of improper attitude and behaviour of the people. School going children very often fall prey to communicable diseases which can be easily prevented by following simple hygienic practices. The incidence of non-communicable diseases in India is increasing due to unhealthy eating habits and physical inactivity. Children are the future adults. So, any attempt to influence their young minds to inculcate healthy behaviour is an investment for the future health of the country. Aims: 1. To assess the knowledge, attitude and practice of personal hygiene, nutrition and healthy habits among school going children. 2. To intervene through two different Aids for Health Education to improve their knowledge and practice. 3. To compare the effectiveness of 'Audiovisual' and 'Chalk and talk' modes of health education.

Materials and Methods

This is a quasi experimental study. A total of 72 residential school students aged 10-11years in Khammam town, AP, India, were included in the study. Pre- tested structured questionnaire was used to assess their knowledge, attitude and practice of personal hygiene, nutrition and healthy habits. Study group was randomised into two groups, with 36 students in each group. 1st group received Health Education through Audiovisual Aids, and the other group, through chalk and talk method. The two groups were followed up for their behaviour change for 3 months. Data Analysis is done after the post test using SPSS version 17.

Results

In the post test, the group which received health education using Audiovisual aids showed more improvement in terms of knowledge and practice (15.69%). The group which received health education using chalk and talk method showed improvement by 6.17%. Improvement in attitude ($x^2 = 3.99, p < 0.05$) and practice ($x^2 = 3.85, p < 0.05$) was found to be statistically significant in the group which received health education using Audiovisual

Conclusions

In the present study, Health education using Audiovisual aids has made comparatively more impact on the attitude and practice among school going children regarding hygiene and healthy habits.

Key Words: School children, health education, personal hygiene, nutrition, healthy habits.

Early Diagnostic Markers For Neonatalsepsis : Comparing Procalcitonin (PCT) and C-Reactive Protein (CRP)

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Introduction

Neonatal sepsis is defined as invasive bacterial infection occurring in first 4 weeks of life. Incidence of NS – 11 to 24.5 per 1000 live births in India. Blood culture Sepsis markers – White-blood cell count (WBC), Absolute neutrophil count (ANC), Micro ESR, I/T Ratio. Newer diagnostic markers - C-reactive protein (CRP), Procalcitonin (PCT). CRP and PCT - early diagnostic markers in detection of neonatal sepsis. Aims: To evaluate the usefulness of Procalcitonin (PCT) as an early diagnostic marker of neonatal sepsis. To compare the PCT with those of C-reactive protein (CRP). To correlate the PCT / CRP level with the haematological parameters (Micro ESR and I/T Ratio) and blood culture for early diagnosis of neonatal sepsis.

Materials and Methods

This prospective study was conducted on neonates admitted to neonatal intensive care unit (NICU) at Tirunelveli Medical College Hospital, Tirunelveli, Tamil Nadu from July' 2010 and August' 2010. Specimens of blood (n = 50) were obtained from each neonate prior to commencement of an antibiotics for sepsis work up including haematological parameters like Erythrocyte sedimentation rate, Total leukocyte count, absolute neutrophil count (ANC), immature neutrophils to total neutrophil count ratio (I/T ratio), platelet count, degenerative changes in the neutrophils. Blood culture and Antibiotic sensitivity test were carried out. Serum CRP level was measured using A-15 CRP Kit by immunoturbidimetric method. Serum PCT level was measured using quantitative immune-luminometry method by Lumitest kit.

Results

Fifty % (7/14) of the neonates with sepsis had raised CRP levels > 6 mg/lit. About 43.7 % (7/16) of the neonates with suspected sepsis and 20 % (4/20) of the neonates with clinical sepsis had raised CRP levels. The sensitivity of CRP for predicting sepsis was 50.0 %, its specificity was 69.4 %, its positive predictive value was 38.8 % and its negative predictive value was 78.1 %. Three neonates with gram-negative sepsis (3/10) and one with gram-positive sepsis (1/4) had raised PCT levels ≥ 2 ng/ml. One neonate with gram-negative sepsis had low PCT levels of ≤ 0.5 ng/ml after the second week of life. Seven neonates with gram-negative sepsis (7/9) and two with gram-positive sepsis (2/9) had PCT levels ≥ 10 ng/ml. Most (64.3% or 9/14) of the infants with sepsis had PCT levels ≥ 10 ng/ml after the second week of life. Out of 50 cases elevated PCT was detected in 22, whereas CRP was noticed only in 18 cases. Among the 14 culture positive cases, elevated serum PCT level

was noticed in 13 (92.85 %) cases whereas CRP level was noticed in 7 (50 %) cases. The sensitivity of the PCT in detecting sepsis was 92.8 %, its specificity 75.0 %, its positive predictive value was 59.0 % and its negative predictive value was 96.0 %. The altered haematological parameters were only noticed in 7-14 % cases.

Conclusions

Serum PCT levels were elevated in almost all culture proven sepsis cases. PCT can be used as a good tool for diagnosis of neonatal sepsis and treating the sepsis cases. PCT is highly specific for bacterial infection and helps to differentiate from viral infection. PCT correlates well with progression and severity of infection. PCT helps in early diagnosis of sepsis on the day of admission itself, before getting the blood culture report (usually after 3-5 days). PCT helps in avoiding antibiotic therapy where it is not required. Reduces the cost and Occurrence of bacterial resistance.

Key Words: Neonatal sepsis, procalcitonin, C-Reactive protein, blood culture

Drug Utilisation Study of Antimicrobials in Patients Suffering from Burns Admitted to Surgical Wards in a Tertiary Care Hospital

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Introduction

Objective of drug utilisation study are to identify good and bad prescribing practices and encourage rational prescribing. Burns are an important health burden worldwide and more than 80% of such patients acquire infections during hospitalisation which is the cause of mortality in 36% of them. However there are no clear guidelines on the empirical use of systemic antimicrobials in burn patients as this has been accused of induction of antimicrobial resistance and adverse drug reactions as well. Aims: 1) To evaluate .a.) the current antimicrobial prescribing patterns to patients admitted with burns in a tertiary care hospital. B.) the factors affecting the change in the antimicrobials or its dose or duration. 2.) To analyse A. the duration of hospital stay of the patient according to the degree of burns B. the most common organisms infecting the patients in the surgical wards of hospitals .3.) To calculate A.) the overall cost of prescriptions per patient during the hospital stay B.) the share of the prescribed antimicrobials in the total cost of prescription

Materials and Methods

A prospective observational study of 50 patients was conducted for two months duration under the auspices of ICMR short term studentship program, with approval from institutional ethics committee. Consenting patients were enrolled into the study and their prescriptions were studied and predesigned case record forms were filled.

Results

The most frequently prescribed antimicrobials were cotrimoxazole(45 patients), gentamicin(42 patients), cefepime(35 patients), piperacillin+tazobactam(29 patients) and third generation cephalosporins(16-20 patients), linezolid(17 patients). These prescriptions were

changed on basis of clinical decision(condition of the wound) and culture sensitivity reports. The degree of burns did not affect the duration of stay in study period. The most common organisms infecting the patients in the surgical wards of hospitals were gram negative organisms ,MRSA,pseudomonas,klebsiella ,gram positive cocci. The share of the prescribed antimicrobials in the total cost of prescription ranged from 7%(cotrimoxazole) to 93.7%(piperacillin+tazobactam). The empirical antimicrobial treatment was started with cefepime and gentamicin. Patients who did not respond were prescribed piperacillin+tazobactam as the higher antimicrobial for 7-20 days. Culture sensitivity of wound swab found that resistance was less with antibiotics like piperacillin +tazobactam and was more with amikacin ,gentamicin and third generation cephalosporins. And was absent with linezolid. Cotrimoxazole was given for longer duration as prophylaxis in these patients due to their immunocompromised status.

Conclusions

Judicious use of the antimicrobials is recommended as systemic prophylaxis to prevent wound infections and septicemia in burns as incidence of bacterial resistance is high. Antimicrobials significantly increased the cost of the treatment.

Key Words: Antimicrobial, drug utilisation, burns

Diagnostic Accuracy of Papanicolaou (PAP) Smear Reporting by MMS Transmitted Digitalised Images Versus Conventional Light Microscopy

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Introduction

Incidence of cervical cancer has been increasing year by year. Timely diagnosis of cervical cancer is essential to reduce the high mortality rate caused by this disease especially in rural set up where diagnostic services are often not available. Aims: The aim of the present study was to assess the diagnostic accuracy of cervical smear reporting by MMS transmitted digital images versus conventional light microscopy.

Materials and Methods

A diagnostic accuracy study was performed with digital images as the index test and slides interpreted on light microscopy as the reference standard. In the first phase of the study, the medical students were taught the Bethesda system of reporting of cervical smears which enabled them to select the field important for making diagnosis. The students took the images with a mobile camera and then transmitted these digital images via MMS to a pathologist who reported on these images. The same cases were then reported by another pathologist by conventional light microscopy. Both the pathologists and the medical students were blinded to the original reports of these cases.

Results

The study comprised of 100 randomly selected cases, and the sensitivity, specificity, Positive Predictive value and Negative Predictive value of MMS transmitted digital images in diagnosing cervical malignancy were estimated as 85.7%, 100%, 100% and 99.9% respectively.

Conclusions

The method of using digitalised MMS images can be used as a handy tool in screening of cervical cancer patients in rural set-up where pathologists are not available.

Key Words: It is a handy tool to be used for screening in rural setup.

Development of Indigenous Hospital based Rural Cancer Registry and Assessment of Pattern of Cancer Cases in Last Two Years (2008-09) at Pravara Rural Hospital

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Introduction

A cancer registry is a systematic collection of data about cancer. It captures a complete summary of patient history, diagnosis, treatment and status for every cancer patient. It is of two types: A)Hospital Based Cancer Registry (HBCR) B)Population Based Cancer Registry (PBCR). The HBCR records data on cancer patients attending a particular hospital. Its prime objective is to focus on clinical care and help in hospital administration.Aims: To develop indigenous hospital based "Pravara Rural Cancer Registry" by collecting all data from cancer patients reporting to Pravara Rural Hospital in last two years (2008-09). To make provisions for generation of various reports on cancer data automatically by indigenous cancer registry software.

Materials and Methods

A)Development of "Cancer Registry Software". Following forms were created to capture patient's detail: Configuration, Patient Profile, Examination, Investigation, Treatment and Summary. B) Entry of two year data into software. C) Analysis of entered data.

Results

In males the leading cause of cancer was Head and Neck followed by G.I. malignancy in 2008 and 2009. In females the leading cause of cancer was cancer cervix followed by breast and G.I. malignancy in 2008 and 2009. There was a female preponderance of 58%. There was a rise in number of cases from 867 cases in 2008 to 1074 cases in 2009. The most significant rise was in Ca cervix cases (34%). The age group 'Above 60' had the largest number of cases. Surgery was performed on 31% of the patients. Radiotherapy was a modality of treatment for 53% of the individuals. Metastasis was present in 24% of the patients. 72% of the cases were from Ahmednagar district and 28% of the cases were lost for follow up.

Conclusions

Cancer is rapidly increasing as the leading cause of morbidity and mortality. There is need for compilation of data from all areas so that effective programme can be made to control this menace. Further it will help in implementation of various National Cancer Control Programmes and policy. The "Hospital based Registry" along with "Population based Registry" will give true picture of distribution of cancer cases.

Key Words: Cancer registry, Hospital based cancer registry (HBCR) and Population based cancer registry (PBCR)

Determinants of High Risk Neonates from Rural Population Admitted to Rural Tertiary Hospital of Wardha District

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Introduction

Globally, out of 130 million infants born each year, about 4 million die in the first 28 days of life and one third of these deaths could largely be prevented. More than half of neonatal deaths occur due to low birth weight. Out of 22 million low birth weight babies worldwide, India accounts for 7-10 million. Very limited data is available regarding determinants of high risk neonates in rural areas. Therefore this study was undertaken to find determinants of high risk neonates in rural area of Wardha. Aims: This study was done to find the determinants of high risk neonates in rural area of Wardha.

Materials and Methods

Case control study was conducted at rural tertiary hospital. Cases were 50 high risk neonates while controls were 100 normal neonates. Data was collected by interviews and case records.

Results

56% cases were males and 44% females; among controls, 46% were males and 54% females. High proportion of males in high risk neonates (OR=1.49; 95%CI=0.71- 1.14) could be due to differential rate of hospital admission between males and females. Maternal anemia (OR=4.51, 95%CI=1.97-10.83), multiple gestation (OR=2.2 95%CI=1.04-4.67), hypertension (OR=13.5, 95%CI=1.54-626.94), premature delivery (OR =33.29, 95%CI=11.11-109.22), meconium staining (OR=16.12, 95%CI=1.94-733.32) were important antenatal and intranatal predictors for cases. Very low birth weight (OR=15.47, 95%CI=3.16-145.84) was more in cases compared to normal neonates.

Conclusions

There is need to implement prevention strategies for rural population with specific focus on determinants highlighted by our study to decrease neonatal morbidity and mortality. However these hospital based case control studies have some inherent limitations, thus a larger community based study is required for better understanding of this problem.

Key Words: High risk neonates, determinants, rural population, low birth weight

Detection of ESBL in Urinary Isolates of E. coli and Klebsiella in a Tertiary Care Hospital in North India

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Introduction

Urinary tract infection(UTI) remain one of the common infections in outpatients, which is further complicated by the continuous rise in the prevalence of antibiotic resistance among uropathogens. Since ESBL production is a primary mechanism of resistance in the majority of uropathogens, its detection in uropathogens isolated from patients with UTI would help in formulating improved and locally- relevant antibiotic regimens for empirical therapy of these patients. Aims: Aims and objectives: To detect the frequency of ESBL production among various urinary pathogens recovered from patients with UTI in this geographical region and their antibiotic resistance profile.

Materials and Methods

Materials and Methods: Urinary isolates from symptomatic UTI were identified by conventional methods. ESBL production was tested by Clinical and Laboratory Standards Institute (CLSI) method. Antimicrobial sensitivity pattern was ascertained for ESBL producing isolates by Kirby-Bauer disc diffusion method.

Results

Results and discussion: In our study E. coli was found to be the most common (54.1%) organism causing UTI. ESBL production was found to be 33% and 21% in E. coli and Klebsiella isolates respectively. The ESBL producers of E. coli and Klebsiella exhibits high resistance to commonly used antibiotics like Ofloxacin(86.8%,66.7%),Tetracycline(84.9%,50%),Amoxicillinclavulanate(81.1%,50%)andCiprofloxacin(75.5%,66.7%)respectively whereas Imipenem(0,0) Nitrofurantoin(9.4%,16.7%), Netilmicin(11.3%,16.7%)and Amikacin(11.3%,16.7%) showed minimum resistance .

Conclusions

Conclusion: A significant prevalence of ESBL producers was observed among the uropathogens recovered from this area and these isolates were more sensitive to imipenem, nitrofurantoin, netilmicin and amikacin compared to the other antibiotics tested and therefore these may be the drugs of choice for the treatment of community-acquired UTI in this geographical region.

Key Words: ESBL, UTI, E.coli

Platelet Count in Normal and Overweight Young Individuals: A Comparative Study

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Introduction

Cytokines, such as Interleukin-6, originating from adipose tissue, have a fundamental role in the pathogenesis of atherothrombosis. In recent reports, circulating IL-6 appeared to be an active mediator involved in the regulation of thrombopoiesis during clonal and reactive thrombocytosis. Higher platelet counts are associated with adverse clinical outcome in patients with ST-elevation in myocardial infarction. Here we are aiming to study the effect of excess weight on platelet count and to check if any gender difference exists in platelet count in over weight individuals. Aims: 1.To compare the platelet count in normal and over weight young individuals. 2.To compare the gender differences in platelet count in over

weight individuals.

Materials and Methods

This will be a hospital based cross sectional study. A sample size of 100 students will be taken. Students will be contacted on a random basis between the age group of 18- 24 years. Brief history, anthropometric parameters, and a blood test will be done. Body mass index will be calculated from height and weight by applying Quetlet's Index. We are using Neubauer's chamber to study the platelet count. Platelet count will be calculated by: A.Dilution factor-200 ; B. Volume of fluid examined in 25 RBC squares=0.1 cumm; C.Total number of Platelets per cumm of blood. Let 'N' be the total number of platelets in 25 RBC squares i.e. 0.1 cumm of diluted blood. Then number of platelets in 1 cumm of undiluted blood=[N × Dilution Factor(200)]/0.1= N × 2000

Results

Out of 100 random students 55 were males and 45 were females out of which 51 were over weight and 49 were normal. Platelet count in overweight individuals is more than normal individuals. Platelet count in males is more than females.

Conclusions

Platelet count was found to be more in overweight individuals and also in case of male individuals. Raised platelet count predisposes an individual to increased risk of thrombosis, which may lead to embolism and hence as a result myocardial infarction, heart failure, renal failure etc. Therefore, overweight individuals are more prone to such disorders. Hence a healthy lifestyle, proper diet and regular exercise should be maintained by them.

Key Words: Platelet, overweight, thrombosis, IL-6, gender differences

Effect of Music on Discomfort Level of Patients Undergoing Gastroscopy (A Randomised Control Trial)

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Introduction

Music is known for its soothing effects. Gastroscopy is with very less actual pain, but marked discomfort due to 'undue concentration' and anxiety requiring conscious sedation in many patients and may reduce compliance. This study was designed to observe effect of music on discomfort level of patients. Aims: To study the effect of music on discomfort encountered during Gastroscopy and to record and compare discomfort, change in Blood Pressure and Heart Rate of the subjects undergoing Gastroscopy, with and without Music in group of patients.

Materials and Methods

Gastroscope and related apparatus, 50 patients, pulse-oxymeter, digital blood pressure monitor, Nokia phone with headphones and preloaded music, a computer with SPSS software. Method: 50 patients were randomly selected fulfilling inclusion criteria and divided randomly into two groups M (Test) and N (Control), having 25 subjects each and matched for age, sex and reason for Gastroscopy. Both groups were

explained, consented and underwent Gastroscopy. M group patients chose their choice of music from given five categories and made to listen 10 minutes before and throughout the procedure with Headphones. N group subjects underwent procedure without music. Nothing but Lidocaine viscous was given per oral to both groups. Pre-, mid- and post-procedure Blood Pressure and Heart Rate were recorded; subjects marked their discomfort level on the two scales prepared.

Results

Total mean reduction of discomfort in M group was 50.63% compared to N group. M group patients had more reduction in all the increments of Blood Pressure and Heart Rate (i.e. less rise from their respective Baseline levels than N group, thus its relative not objective). There were 48.81%, 55.22% and 88.49% less increments in Heart Rate, SBP and DBP, respectively. Discussion: The study should be repeated on larger scale. How does music affect 'milieu interieur' of human biology or psychology? It should be studied.

Conclusions

My study concluded that music helps to reduce discomfort and rise in Blood Pressure and Heart Rate during Gastroscopy. Since it is simple, inexpensive, without any side effects, listening to music of choice is highly recommended for patients undergoing elective Gastroscopy.

Key Words: Gasstroscopy, music, discomfort

Knowledge and Awareness Regarding Cervical Cancer with Respect to Risk Factors, Screening and Vaccination

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Introduction

Globally, cervical cancer is the second most leading cancer among women and is the most common cancer affecting Indian women. Lack of awareness about the disease is a major hindrance for its early detection and prevention. The stigma associated with cancer is so grave that it is absolutely essential to educate women regarding cervical cancer. Aims: 1) To determine the knowledge and awareness regarding cervical cancer with respect to risk factors, screening and vaccination 2) To find out the source of information for screening and vaccination and to investigate the attitude of women towards the same.

Materials and Methods

A self constructed semi-structured questionnaire was administered to all women between 18-55 years. A cross-sectional interview of 194 Indian women coming to the O.P.D of Nair Hospital was conducted and analysed statistically.

Results

According to this study, 25% women were aware of cervical cancer, 12% had heard of viral infection of the cervix, and only 3% of the HPV vaccine. Of the 18% women aware of screening methods for cervical cancer, majority had heard of the Pap smear (94.2%) test. The most common source of awareness for screening was hospital/family doctor (91%), friends (22.8%) and books/magazines (14.2%). While, for HPV vaccine it is from the media (60%) followed by books/magazines (40%) and lastly

family doctor (20%). Only 13% of the women had undergone Pap smear test, major reason being unawareness of the same (46.4%) and no need felt for the test (45.6%). 12% women agreed to use the vaccine. Most common reason cited was believing it would prevent the disease (78.3%) and recommendation by a doctor (21.1%). Reasons for not using the vaccine was lack of information (52%), high cost (31.5%), religious and ethnic background (9.9%).

Conclusions

The level of awareness about cervical cancer with respect to risk factors, screening and vaccination is low. Screening rates and acceptance to the usage of HPV vaccine is also low. Increasing the level of awareness amongst women by health education is the only means of reducing the disease burden in our country.

Key Words: Cervical cancer, screening, low awareness, vaccine usage aversion, health education

Delayed Axillary Nerve Motor Conduction Latency and Reduced CMAP Amplitudes in the Paretic Limbs of Patients with a Cerebrovascular Episode

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Introduction

Cerebrovascular episode (stroke) is a sudden onset neurological deficit, due to compromised blood supply to a part of cerebrum or brain-stem. Usual presentation of stroke is hemiparesis. Limb paresis may lead to muscle weakness leading to inferior subluxation of humeral head injuring the axillary nerve winding around the surgical neck of humerus. Since, axillary nerve injury is largely unproven, we planned this study. Aims: To find the evidence of axillary nerve injury in the paretic arm, as compared to the non-paretic arm in patients with a recent stroke.

Materials and Methods

The study was conducted in Mahatma Gandhi Institute of Medical Sciences, Sewagram, a rural teaching hospital in Maharashtra. It was case-control study with paretic arm as case and non paretic as control, conducted on 21 patients (42 limbs). An electro diagnostic test was performed in Neurophysiology laboratory in the department of Physiology, on RMS EMGII Machine. Motor conduction latency (MCL) and compound muscle action potential (CMAP) amplitudes were recorded.

Results

We considered cases positive for injury if MCL was prolonged (>3.5msec) and CMAP reduced (<50%) than that in non paretic limb. Of 21 paretic limbs 13 (61%) had MCL duration of 3.5msec or more.

Conclusions

The delayed MCL and reduced CMAP amplitude (altered electrophysiology) suggest axillary nerve injury due to inferior subluxation of humeral head due to weakness of shoulder muscles occurring from stroke. Thus, if axillary nerve electrophysiology is altered, injury has occurred and preventive

and rehabilitative measures can be taken for prevention of nerve injury.

Key Words: Axillary nerve, MCL, CMAP, stroke

Pattern of Cancer, Care and Compliance in Geriatric Population in a Tertiary Care Hospital

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Introduction

In India, 7.7% of the population is more than 60 years of age. Deaths among the geriatric population due to cancer were 2,923,000 during the year 2004. The incidence of most cancers is age dependent and owing to the greater life expectancy, it is increasing in the elderly. Elderly patients differ with respect to the physiological characteristics that make the choice of the correct treatment more difficult. Elderly patients are underrepresented in cancer treatment trials, and this makes the experimental evidence on this topic weaker. Hence there is a need for this study. Aims: To study the pattern of cancer in the geriatric population, care given to them and influence of various associated factors on compliance to treatment.

Materials and Methods

430 case records of patients from January 2007 to December 2008 aged 60 and above were retrospectively analysed with respect to different parameters. Both univariate and multivariate analysis were employed to analyse these variables using SPSS 14.0.

Results

The patients of both sexes were equally distributed, majority of the patients were between 60-79 years of age. 90% were Hindus. 65% were literate. Majority had an annual income of fifty thousand and above. 81% hailed from urban areas. 77% were from a distance of less than hundred kilometers. Head and neck, prostate cancers predominated among men, breast and cervical cancer among women. 70% had presented in the advanced stages. 84% had better performance status (ECOG 1,2). 33% had associated co-morbidities. 87% received the recommended treatment as per the guidelines. 81% were found to be compliant to treatment and 63% were regular on follow up. Literacy level, financial status, urban population, those residing closer to the hospital and patients in early stages had a positive correlation with compliance to treatment and follow-up.

Conclusions

Literacy programs should be launched for the elderly. Health insurance policies should be extended to the elderly. Effective cancer screening and health education creating cancer awareness is the need of the hour for elderly. Treatment guidelines exclusively for the geriatric population in all types of cancer need to be formulated. More regional cancer centers, especially in the rural areas need to be established in order to make cancer care accessible to all the elderly.

Key Words: Geriatric cancer pattern care compliance

Parental Knowledge, Attitude and

Practices Regarding Fever in their Children: A Hospital-based Prospective Study

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Introduction

Fever is an extremely common and mostly benign childhood condition that is frequently misunderstood and incorrectly managed by parents. Parental misconceptions often prompt unnecessary contact with the health care system or might even delay childcare. To change a practice, it is imperative to provide consistent information and role modelling to parents. Our study explores: basic understanding of fever, the use of domestic remedies, antipyretic medication and sponging by parents before seeking professional advice and source of such knowledge. This will be useful for preparing appropriate health education material for parents. Aims: To systematically document and analyse the understanding of fever, its dangers and treatment practices among parents.

Materials and Methods

Parents of 100 febrile children under six years of age were interviewed in the outpatient department of pediatrics using a semi-structured questionnaire to obtain information. Unwilling parents and parents of critically ill children were excluded.

Results

In our study mothers were the informant in 73% cases with maximum of them having received primary or secondary level education. 92% parents demonstrated poor understanding of definition of fever. Fever was perceived as a symptom by 51% and 63% felt that it would go on rising unchecked. Parents dreaded complications like convulsions (28%), loss of appetite (15%), typhoid, jaundice, etc. At home, paracetamol was used by 49% and 51% resorted to sponging. However, only 13% used appropriate doses. Four percent used antibiotics. Seven percent used domestic remedies like honey, milk and oil. 84% sought consultation by the 2nd day. Doctors were the source of knowledge in 59% cases. Based on above findings some general guidelines were formulated for educating parents.

Conclusions

Our study points towards many gross misconceptions, undue fear, inappropriate knowledge of antipyretics especially effective doses among lesser educated parents. This reflects poorly on our health education system. However owing to various socio-economic and cultural differences, in the Indian scenario, it would be advisable to impart such knowledge to commoners by enhanced doctor patient interaction as well as devising health education aids.

Key Words: Fever, parental knowledge, domestic treatment

Otorhinolaryngological Manifestations among HIV Positive Children in Mangalore

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Introduction

The opportunistic manifestations as a result of human immunodeficiency virus (HIV) infection are numerous and involve all the otorhinolaryngological sites. The pediatric population infected by the virus is also not spared. Head and neck diseases in HIV present mainly through atypical manifestations, and, therefore, the acquired immunodeficiency syndrome is not suspected until late, thus leading to negative diagnostic and prognostic consequences. It is therefore essential to recognise characteristics of otorhinolaryngological manifestations in HIV and initiate appropriate treatment at the earliest. Aims: To know the pattern of otorhinolaryngological manifestations in HIV positive children, to find out any relation between otorhinolaryngological manifestations and CD4 count of the individual.

Materials and Methods

A retrospective study was done where the records of children infected with HIV and currently registered at ART Centre, Government Wenlock Hospital, Mangalore were studied and the required information was collected.

Results

Among the 137 children who were registered with the ART centre, 69 (50.4%) children presented with some form of opportunistic manifestations. 23 (16.8%) children developed otorhinolaryngological manifestations and 55 (40.1%) children developed other systemic opportunistic manifestations. The commonest otorhinolaryngological manifestation was Upper Respiratory Tract infection observed in 13.1% cases. 85.7% of cases with ENT manifestations belonged to WHO stage II. 34.8% and 43.47% cases with ENT findings had CD4 counts above 500 cells/cumm and below 200 cells/cumm respectively.

Conclusions

Otorhinolaryngological manifestations were present in less than 25% pediatric HIV positive patients. These manifestations develop at an early stage and can be easily missed due to their high prevalence in the non-infected children as well. Thus, trivial otorhinolaryngological manifestations are a very strong indicator of HIV infection in children belonging to high-risk group and this gives a chance to detect HIV infection at an early stage before it advances to more severe stages and ultimately proves to be fatal for the patient.

Key Words: Otorhinolaryngological manifestations in HIV, Pediatric HIV.

Neonatal Outcomes in Caesarean and Normal Delivery- A Comparative Study

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Introduction

Rates of caesarean section in many countries have increased beyond the recommended level of 15%, Similar trends have also been documented in low-income countries such as Brazil, China and India. Rate of caesarean has increased from 2.9% in 1992-93 to 17.8% in 2007-08 in India. Keeping the above said in mind, this study is being done to assess the neonatal outcomes in the women who underwent C-section and vaginal delivery. Aims: To study Socio-demographic profile of patients going for C-section and normal delivery. To examine and compare the neonatal outcomes in newborns delivered

through cesarean section and vaginal delivery. To examine and compare the neonatal outcomes between newborns delivered through emergency C-section and elective C-section

Materials and Methods

The study will be done for 15 days in the SDMCMSH (tertiary care hospital) on women of any parity who underwent C-section and normal delivery during the study period with gestation period of 37 weeks or more and without any congenital anomalies. Informed consent is taken before interviewing each of the study subjects. Socio-demographic factors of all study subjects will be assessed using a pre-tested questionnaire. The neonatal outcome will be assessed by APGAR score recorded during the 1st and 5th minute. Whether the newborn was admitted into NIC Birth weight

Results

Out of the 70 cases studied, there 43 vaginal deliveries, 23 emergency and 4 elective caesareans. 94.3% of FTND had birth weight > 2kg compared to 96.3% of caesarean sections. 18.6% of FTND babies scored 7 or less on APGAR scale and 14% were admitted to NICU compared to 22% of C-section babies having low APGAR score and 22% were admitted to NICU. Overall the percentage of babies having low APGAR score was more in C-sections.

Conclusions

There is some difference in the average APGAR score (1st min) of Normal deliveries (7.74/10) C-sections (7.96/10), however, it is not significant enough to disprove the null hypothesis: " There is no significant difference between the neonatal outcome of C-section and Vaginal delivery." However, a strong relation is between the birth weights of the babies and their APGAR scores.

Key Words: Neonatal outcomes, APGAR scoring, elective C-section, socio-demographic factors

Neonatal Mortality in Extramural (Outborn) Referrals in a Tertiary Care Unit

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Introduction

The burden of neonatal deaths is high in developing countries. Out of 1.44 million infant deaths in India in 2007, 940,000 were neonatal deaths, most of which occurred in the 1st week of life. Sepsis, pneumonia (30.4%), birth asphyxia (19.5%), and prematurity (16.8%) are the 3 commonest causes of neonatal deaths in India. Aims: To analyse: •The causes of outborn neonatal deaths. •Deaths among early and late referrals. •Maternal risk factors. •Referral distance as a factor contributing to neonatal mortality.

Materials and Methods

A retrospective study was done from the Neonatal division of Department of Pediatrics at Kasturba Hospital, Manipal, Karnataka. All outborn neonatal deaths (<=28 days) in Kasturba Hospital during 01-01-2008 to 31-12-2010 were analysed. Data was analysed using SPSS16.

Results

There were totally 1113 neonatal referrals during 2008-2010 in KH, out of which 90 expired in the hospital (2008-20, 2009-33, 2010-37); 62 (68.9%) were males and 28 (31.1%) were females. The mean birth weight was 2.34kg (range: 0.640kg-3.9kg). Majority belonged to the low birth weight category (<2.5kg) (54.4%) and were of term gestation (66.7%). Most deaths occurred in the 1st week of life (62.2%). Leading causes of deaths were found to be prematurity (n=16; 17.8%) (includes-necrotising enterocolitis, RDS, sepsis, extreme LBW and chronic lung disease), sepsis (n=16; 17.8%), perinatal asphyxia (n=13; 14.4%), meconium aspiration syndrome (n=12; 13.3%), congenital heart diseases (n=11; 12.2%), other congenital malformations (n=9; 10%), others (n=13; 14.4%). The mean maternal age was found to be 27.18 years (data for age available for 49 cases; range: 19-39yrs). Most mothers were primis (63.3%). Bleeding PV (12.2%), oligo/polyhydramnios (6.6%) and fever (5.6%) were the important complications during pregnancy. The referral areas were within a radius of 150 km from Manipal. Most deaths were from places >75km-43.3% (15-75km- 28.9%, 15km- 27.8%) due to inadequate transport facilities.

Conclusions

Most deaths occurred among early referrals (<=7 days), meconium aspiration syndrome and perinatal asphyxia being the major cause. Deaths among late referrals were mostly due to sepsis and prematurity. Bleeding PV (maternal complication), low birth weight and referral distance were found to be contributory factors

Key Words: Kasturba hospital, neonatal, mortality

Neck Circumference as a Predictor of Obesity and Overweight in Rural Central India

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Introduction

There are numerous methods of assessing overweight and obesity(a major health problem) like measurement of hip, thigh, etc.The present study is planned to determine if neck circumference (NC) is a valid measure (has distinct cultural advantages) of obesity and overweight in our population.Aims: The specific research questions for this study are; a) does a higher NC also reflects a higher BMI. b) do those who are in highest tertile of NC, as compared to those with in lowest tertile, have a higher prevalence of cardiovascular risk factors.

Materials and Methods

This is a Prospective cross-sectional study. We enrolled 203 odd patients more than 35 years of age in 1 month period. We analysed NC,BMI as continuous variables and presence of hypertension, diabetes, age, sex as dichotomous variables. We plotted NC against BMI, age and determine correlation between them. We used chi square test and t test while making various comparisons. We did linear regression with NC as a predictor variable and age, BMI, sex as explanatory variables.

Results

We found that men with NC of 38cm or more are 5.24 times and women with NC 34.7cm or more are 13.46 times more

likely to have abnormal BMI .Overall, the predictability of abnormal BMI in men and women using NC is 89% and 91% respectively. In case of men and women BMI increases on an average by 1kg/m² for every 1.25 cm and 1.04cm increase in NC respectively.

Conclusions

NC measurement is a simple and time-saving screening measure that can be used to identify overweight and obese patients. Men with NC<36.6 cm and women with NC >>32.1 cm are not to be considered overweight. Patients with NC>36.6 cm for men and

Key Words: Neck circumference, obesity, overweight, BMI

Naked Eye Single Tube Red Cell Osmotic Fragility Test (Nestroft) as an Antenatal Screening Test for B-Thalassemia Trait

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Introduction

Beta thalassemia is the most common single gene disorder in our country. The incidence of such genetic disorders can be reduced remarkably, by genetic counseling and prenatal diagnosis. The naked eye single tube red cell osmotic fragility test or NESTROFT serves as an inexpensive screening test for beta-thalassaemia trait.Aims: Aim: To detect beta-thalassemia trait among pregnant women. Objectives: To identify the incidence and detect thalassemia trait in pregnant women; to study the usefulness of NESTROFT in differentiating anemia of thalassemia trait from that of iron deficiency with the help of red cell indices.

Materials and Methods

Study type: Cross sectional. Study site: Lady-Goschen Government Maternity Hospital (Mangalore), Study duration: 2 months, Sample size: 300. Inclusion criteria: Antenatal women. Materials: Test tubes , Lancets, Cotton swabs, Spirit, Buffered saline, Distilled water. Methods: Prepare a 0.36% buffered saline solution with NaCl , Na2HPO4 and NaH2PO4 in the ratio of 38:6:1. Taking aseptic precautions obtain 2ml of blood and add it to the 0.36% saline solution. 3.Shake the tube after leaving it undisturbed for half an hour. If a black line drawn on paper is indistinct when visualised through the tube, it is taken as NESTROFT positive. All patients hematological parameters (MCV,MCH,MCHC,RDW) were taken.

Results

The mean age of women attending the antenatal clinic was 24.91. 7.67% of the patients were NESTROFT positive. MCV<75fl was observed in all NESTROFT positive samples. In NESTROFT positive samples, Hb><10g/dl was 65.22%, hematocrit><35 was 87%.Hence both are inaccurate. MCH><27 pg was 95.65%. Its sensitivity and specificity was 95.7% and 81.6% respectively. Hb-A2 level in a single sample with RDW 14

was in the upper limit of normal-2.3g/dl. The hemogram parameters were hemoglobin-12.5, MCV-68.6fl, MCH-27.4 and MCHC-31.3. Hence, beta-thalassemia trait could be confirmed in this sample. RDW sensitivity and specificity was 4.35% and 65.7%

Conclusions

NESTROFT alone was found to be sensitive but not specific. Combined with RDW though, it proved effective. Since it is impractical and expensive to use automated cell counters for screening purposes in the rural set up, NESTROFT is still ideal due to 100% sensitivity.

Key Words: NESTROFT, MCV RDW, beta-thalassemia

Mitigating the Utility of Bacteriophage as Bio-disinfectant

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Introduction

Microorganisms present a range of resistances to chemical and enzymatic disinfectants and no single disinfectant is effective in all situations. Aims: The aim of the present study is to evaluate the bacteriophage as bio-disinfectant in different conditions

Materials and Methods

The phages were isolated from raw sewage at a municipal sewage treatment plant, by the method of Smith and Huggins for various gram positive and gram negative bacteria. Phage was subjected to a standard battery of tests including the In-Use Dilution Method for Testing Disinfectants and the Germicidal Spray Products Test.

Results

Results indicate that aerosolised phage can eradicate or significantly reduce the Enterococcus faecalis load on a variety of materials found in the laboratory and hospital-related equipment. Additionally, Bacteriophage was shown to retain full activity under conditions that mimic a hospital environment, i.e., in the presence of non-ionic detergents, hard water, or organic materials

Conclusions

We propose phage as the first biological, narrow-spectrum disinfectant against Enterococcus faecalis, which may augment or supplement the use of broad-spectrum disinfectants.

Key Words: Bacteriophage, bio-disinfectant, enterococcus faecalis

Factors Precipitating Congestive Heart Failure

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Introduction

Identification of precipitating factors is an important step in the

management of congestive heart failure. Present study was undertaken to study clinical profile and factors precipitating congestive heart failure. Aims: 1) To study clinical profile of congestive heart failure in indoor cases of medicine wards or intensive care unit of Indira Gandhi Government Medical College And Hospital Nagpur. 2) To identify systematically the precipitating factors causing decompensation of heart failure and subsequent hospitalisation.

Materials and Methods

This hospital based, observational analytical study was carried out on 30 indoor cases (Males 12, Females 18 Ratio 2:3) of congestive heart failure. All cases were evaluated for signs, symptoms and etiology of heart failure. Diagnosis of CHF was made on basis of NYHA classification. Co-morbid conditions noted and all cases underwent investigations viz. ECG, X-ray and Echocardiography. Factors precipitating congestive heart failure were noted and analysed.

Results

Breathlessness was the commonest symptom (28 cases, 93%) followed by Fatigue (26 cases, 86%), Tachycardia was observed in 19 cases (63.3%), raised JVP in 23 cases (76.6%), crepitations in 20 cases (66.3%). S3 gallop was present in 7 cases (23.3%). Hypertension was the commonest co-morbidity reported in 12 cases (40%), followed by diabetes mellitus (7 cases, 23.3%). Ischemic heart disease was the commonest etiology (14 cases, 46.6%) followed by rheumatic heart disease (8 cases, 26.6%). Echocardiography demonstrated EF < 45 in 13 cases (43.3%), valvular heart disease in 11 cases (36.6%) and regional wall motion abnormality in 13 cases (43.3%). Precipitating factor was identified in 29 cases (96.6%). Salt indiscretion was the commonest precipitating factor (23 cases, 76.6%) followed by treatment non compliance (18 cases, 60%). Other precipitating factors reported were arrhythmias (8 cases, 26.65%) and anemia, uncontrolled hypertension and infection in 3 cases each respectively (10%). 4 cases (13.3%) had one precipitating factor, 10 cases had two precipitating factors and three or more precipitating factors were observed in 15 cases.

Conclusions

Identification and treatment of precipitating factors helps in optimising treatment in congestive heart failure. The results emphasize the importance of salt indiscretion and patient non-compliance with prescribed therapy as a leading precipitating factor for congestive heart failure which can be prevented by cost-effective strategies aimed to improve patient compliance.

Key Words: Factors precipitating congestive heart failure.

Knowledge, Attitude and Practice of Breastfeeding in an Indian Urban Setting.

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Introduction

Breastfeeding is feeding of an infant with human milk via female breasts. It is easy and inexpensive way for a mother to feed her child. WHO recommends exclusive breastfeeding (i.e. infant's consumption of only human milk with no supplementation of any type except for vitamins, minerals and

medications) till baby is 6months old and thereafter continued breastfeeding with addition of complementary foods till 2years or beyond. But the definition of exclusive breastfeeding is misunderstood due to which mothers tend to give cow's milk and water thinking that its a part of exclusive breastfeeding. These practices may lead to malnutrition which causes approximately one-third of deaths among children under five. Aims: To determine the knowledge and attitude of women towards breastfeeding, the reasons why breastfeeding was discontinued and in turn educate the women about the benefits of breastfeeding.

Materials and Methods

Women who gave birth to a healthy baby within preceding 9 months were given a questionnaire designed to measure their knowledge and attitude towards breastfeeding, their breastfeeding practices and factors associated with breastfeeding. This cross-sectional interview of 200 Indian urban women was then analysed.

Results

Though half of the mothers breastfed within 2 hours of birth, exclusive breastfeeding was practiced by only about 60% of mothers till 6 months of the baby's life. Information about breastfeeding was given to 68% the mothers, mostly postpartum. About 55% mothers were not encouraged to breastfeed. Out of the ones who were encouraged, the most common source was found to be the Doctor (30.5%). Only 37 women out of 200 had discontinued breastfeeding. Main reasons for discontinuation being breast problems and mothers perceiving their babies to be hungry after breastfeeding.

Conclusions

The study indicates that though breastfeeding was initiated early, it was clear that most mothers did not understand the true meaning of exclusive breastfeeding. Most mothers gave water and cow's milk thinking it a part of exclusive breastfeeding. They are unaware that it could possibly affect exclusive breastfeeding or its discontinuation. About half the mothers were not encouraged to breastfeed. Hence, in order to empower the women of today and help them successfully breastfeed, it is necessary that we educate and encourage them.

Key Words: Breastfeeding practices exclusive breastfeeding encourage educate

Frequency of Satellite Associations in Smokers And Non-smokers

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Introduction

A smoker is exposed to a variety of carcinogenic constituents present in cigarettes, making it necessary to analyse the cells at metaphase as these can be a health hazard to the future generations. So, we decided to do an invitro cytogenic study to investigate the frequency of Satellite Association and determine the effect of exposure to chromosome damaging agents in smoke in Smokers and Nonsmokers. Aims: 1. To identify the frequency of an individual acrocentric chromosomes forming acrocentric(satellite) associations in smokers .2. To correlate the findings with the non smokers.

Materials and Methods

Cytogenic assay in peripheral blood lymphocytes was done to assess the incidence of Satellite Associations among 12 smokers and 12 nonsmokers of "Embalam", a small hamlet in Puducherry. Smokers were divided into three groups based on their Smoking Index(SI) = No. of cigarettes smoked per day X Total duration of smoking in years. 12 smokers sub stratified into THREE groups based on smoking index. 4 Smokers I: SI<150, 4 Smokers II: SI=150 to 300, 4 Smokers III: SI>>

Results

The mean value for satellite association was higher in smokers than the non smokers. The "ODDS" Ratio showed a gradual increase with the increase in smoking index. The 't' test value for Satellite Association, showed a highly significant difference (p<0.01) in all the three groups of smokers than their non smoking counterpart. Chromosomal aberrations were seen in smokers

Conclusions

The study highlights the genotoxic effect of cigarette smoke on the chromosomes in relation to the smoking intensity indicating the all the three groups fall under the category of high risk to neoplastic disease in near future. Thus as a community service these findings can be used as a Smoking Cessation Intervention tool.

Key Words: Satellite association, smoking index, genotoxic effect, cigarette smoking, ODDS Ratio, 't' test

Isolation of Group A beta-hemolytic Streptococci from the Paediatric Age Group, Antibiotic Susceptibility Testing and Evaluation of Anaerobic Incubation

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Introduction

Streptococcus pyogenes is one of the most frequent pathogens of humans. There has been a recent increase in variety, severity and sequelae of Streptococcus pyogenes infections, and a resurgence of severe invasive infections. Aims: Given the importance of streptococcal infections in present day clinical practice, we decided to estimate the frequency of pharyngeal carriage of the bacterium in both symptomatic (presenting with symptoms of tonsillopharyngitis) and asymptomatic children, determine the antibiotic sensitivity pattern, evaluate anaerobic incubation compared to conventional incubation technique and estimate ASO titres to correlate with culture results.

Materials and Methods

Throat swabs and serum samples were collected from children between 5-15 years who satisfied the inclusion criteria. The swabs were cultured simultaneously in anaerobic and conventional incubation for comparison and culture-positive samples were subjected to antibiotic sensitivity testing. ASO titres were estimated from the serum samples.

Results

46% of symptomatic and 26% of asymptomatic children tested positive for Group A streptococci. There was no difference in the number of isolates obtained by both conventional and

anaerobic incubation techniques but the zone of beta-hemolysis was larger and better appreciated in anaerobically incubated culture plates. All isolates were sensitive to Penicillin while 81% were sensitive to Clindamycin. The highest proportion of resistance was to Co-Trimoxazole (67%) followed by Ofloxacin (47%) and Erythromycin (36%). ASO titres did not match culture results.

Conclusions

Pharyngeal carriage of Group A streptococci has been found to be quite high. This emphasises the need for active surveillance programmes to keep GAS infections and carriage in check. Children found to be carriers must be promptly treated to abolish the risk of spread of infection. As antibiotic resistance has become a major problem in the treatment of infections, regular susceptibility studies to monitor the sensitivity of *Streptococcus pyogenes* to various commonly prescribed antibiotics are necessary. Judicious use of antibiotics is important to prevent emerging anti-microbial resistance.

Key Words: *Streptococcus pyogenes*, antibiotic sensitivity, anaerobic incubation

Intraocular Pressure Variations after Pupillary Dilation in Diabetic Patients (Type II)

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Introduction

Diabetes Mellitus is a 'silent killer' disease predominantly found in the rice eating population and within the last four decades it has emerged as a major cause of visual disability. Diabetes mellitus is seen in association with primary open angle glaucoma and the configuration of the anterior chamber angle is altered with pupillary dilation. So diabetics are at an increased risk of acquiring glaucoma if pupillary dilation is done without assessing the anterior chamber angle prior to the procedure. Aims: Given the steep increase in incidence of diabetes mellitus, our project was done to study the IOP variations in diabetic patients after pupillary dilation and to evaluate if there was any significant change in IOP.

Materials and Methods

50 diabetic patients who attended our Ophthalmology OPD were selected and included in the study group and 50 non diabetic patients who were referred for fundus examination were included in the control group according to the inclusion and exclusion criteria. The angle was measured using Shaffer's grading and IOP before and after dilation was recorded using the Goldmann's applanation tonometer. Tropicamide was used to dilate the pupil. The observations were tabulated and analysed using 'Paired t test'

Results

The IOP before and after pupillary dilation in diabetic patients were 13.56 and 14.40mmHg respectively (p value-0.0297, t value-2.2394) and is significant, whereas for non-diabetic patients it was 14.20 and 14.62mmHg respectively (p value-0.1882, t value-1.3345)-not significant

Conclusions

Dilation of pupil in diabetics is associated with a moderate rise in IOP as compared to the non diabetic group and our findings

very well correlated with other studies done earlier. These findings suggest that ophthalmologists must be aware of the increased risk of glaucoma while evaluating diabetic patients.

Key Words: Diabetes Mellitus, intraocular pressure, anterior chamber angle, pupillary dilation

Increasing Oxidative Stress in Post Menopausal Women - Is there any Correlation with Body Weight?

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Introduction

Aims: To correlate whether the post menopausal increase in oxidative stress is associated with obesity or just a function of age.

Materials and Methods

A total of 45 subjects were selected which was divided into a control group of 15 normal menstruating subjects and another experimental group of 30 postmenopausal subjects, latter was further equally divided into 2 groups of normal BMI and increased BMI respectively. The serum SOD and MDA level were calculated and analysed statistically.

Results

There is decrease in SOD and increase in MDA level not only in postmenopausal women; but also in subjects with increased BMI when compared with normal BMI subjects.

Conclusions

There is significant rise in the serum MDA level (p<0.001) in postmenopausal women with slight decrease in SOD level (p>0.05) when compared to the normal menstruating women, which is a function of age. Also there is a significant decrease in serum SOD level in overweight postmenopausal women with slight increase in MDA level when compared to the normal weight subjects, which is independent of age factor, which indicates increase in oxidative stress in the body irrespective of age. With a thorough study on oxidative stress markers and antioxidants among postmenopausal women, the oxidative stress can be monitored.

Impact of Yoga on the Stress Management and Academic Performance among Children from a Residential School in Khammam District, Andhra Pradesh, India

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Introduction

Childhood is the foundation for future life. There was a time when children thought of school as "home away from home". But with the changing school trends, increasing after school pursuits and lack of sufficient time for play and recreation, this

thought has changed and now, school has become a nightmare. The soaring competition and sky high expectations of the parents and teachers are adding psychological stress to the already burdened young minds, ultimately affecting their academic performance adversely. The hectic study schedule is hampering the physical health of the children. Yoga, an exercise which enhances the balance between the body and mind can boost the physical and mental growth of the children, thus helping them excel in academics and other activities. Aims: 1. To assess the stress pattern, academic performance, and awareness regarding yoga 2. To intervene through a 15 day yoga session 3. To assess the impact of yoga.

Materials and Methods

This is a quasi experimental study involving 97 residential high school students between the ages 12 to 14 years in Khammam District, AP, India. A pre-tested structured questionnaire and PSM 9 (Psychological stress measure) scale was used to assess the awareness regarding yoga and their stress pattern. The academic performance was assessed using the school records and baseline data regarding their age, height, weight was also collected. A 15 day yoga session was conducted by yoga trainer and the study group is now being followed up for next 3 months.

Results

At the end of 3 months the post test revealed that the knowledge regarding yoga improved by 25.94%. Stress scores obtained after the intervention with yoga when compared with stress levels before intervention, improved significantly and the difference observed was statistically significant ($t=4.17$, $SD=3.231$). Academic performance of the students after the intervention of Yoga had proportionately increased and the increase was statistically significant ($t=10.5$, $SD=13.86$)

Conclusions

The yoga intervention in the present study had a significant impact on improving the academic performance and decreasing the stress levels among the school children.

Key Words: School children, Yoga, stress, academic performance

Impact of Oxidative Stress on the Spermatozoa of Infertile Men
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Introduction

Male infertility is a multifactorial disease process with a number of potential contributing causes. Any type of stress, be it physical, chemical, biological or psychological, is responsible for elevated oxidative stress in semen which is suggested to be related with male infertility. Aims: In context to the increasing cases of idiopathic infertility, our aim was to study the effect of oxidative stress in the semen of infertile men by semen analysis along with measurement of ROS level and biomarkers of lipid and protein peroxidation.

Materials and Methods

Semen sample of 60 subjects was collected and the volume was measured after it liquefied. Then according to the semen profiling (WHO, 1999), the subjects were categorised into groups of asthenozoospermic ($n=20$), oligozoospermic ($n=20$)

and control ($n=20$). Supernatant seminal plasma, obtained by centrifugation, was then stored at -20°C . Further seminal plasma was measured for ROS levels using DCFDA. Lipid peroxides and protein carbonyl levels were measured by the methods given by Ohkawa et al and Levine and Williams respectively.

Results

The mean %ROS, lipid peroxides (TBARS levels) and protein carbonyl levels were significantly increased in asthenozoospermic and oligozoospermic subjects in comparison to the control group. The results implicate that ROS mediated damage to spermatozoal DNA, proteins and lipids alters the exclusive sperm structure resulting in their dysfunction and thus infertility.

Conclusions

Further research is needed to understand the molecular basis of elevated oxidative stress which can help in the development of an effective treatment. Inclusion of oxidative stress monitoring during Assisted Reproductive Techniques (ART) is also necessary.

Key Words: Male infertility, idiopathic, oxidative stress, sperm damage

Identification and Evaluation of Antibiotic Sensitivity of Bacterial Isolates (UTI) from Different Wards
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Introduction

Objectives-To isolate the causal organisms of UTI from patients of different wards of Medical college. Evaluation of their antibiotic sensitivity pattern and analysis of the most effective antibiotic against UTI.

Materials and Methods

The work was carried out in the Dept of Microbiology. Urine samples were collected as per the standard methods prior to antibiotic therapy of patients of Medicine, Gynae and Surgery depts who had symptoms suggestive of UTI and were admitted for diseases other than UTI. Dept. wise analysis and antibiogram was made.

Results

The uropathogens were found to be E.coli [33.33%], Klebsiella sp, Enterococcus sp., Staphylococcus saprophyticus, Staphylococcus aureus and Pseudomonas aeruginosa. Amikacin [72.97%] and Nitrofurantoin [62.16%] was found to be most susceptible for E. coli and Klebsiella spp for all the three departments while Imipenem was found effective for UTI patients in Surg. And Med. Dept. Gram positive uropathogens responded promptly with Linezolid [80.76%] and Vancomycin [92.30%]. High degree of resistance was shown by the gram negative uropathogens against Ofloxacin, Amoxicillin, Cefuroxime, Cefixime while gram positive microbes were found to be resistant to Cefixime, Penicillin, Cotrimoxazole.

Conclusions

Results are in line with the studies carried out elsewhere in India and abroad emphasizing that the indiscriminate use and

other genetic as well as geographical variations has led multidrug resistant cases of UTI which has to be tackled very cautiously through in vitro drug sensitivity testing to avoid complications'.

Health Care Waste Management Practices

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Introduction

Introduction: Health care waste refers to all the waste generated by a health care establishment. It is estimated that 10-25% of health care waste is hazardous, with the potential for creating a variety of health problems. Bio-medical waste (BMW) collection and proper disposal has become a significant concern for both the medical and the general community. Poor management of HCW exposes health care workers, waste handlers and the community to infections, toxic effects and injuries. **Aims:** The present study was carried out with the following objectives: 1. To assess the biomedical waste management practices by health personnel. 2. To sensitise the health care staff regarding biomedical waste management practices.

Materials and Methods

This study has been conducted in J.N Medical College AMU Aligarh, India from 1st August to 30th September, 2010. The hospital has a work force of doctors, nurses and other supportive staff, which includes paramedical and housekeeping staff as well. The tool used for collection of data was Questionnaire concerning the knowledge, understanding and their behavior on the subject. The study population was categorised into 2 groups: Doctors and Nurses, O.T Staff and Technicians. Questionnaires were given to 50 participants in both the categories.

Results

36.4% doctors observed that in their wards or clinics, waste material was categorised and it was put in open bins (68.2%) and secured puncture proof container was used only in 31.8% cases for collection. Daily collection of sharps was noticed by majority of doctors (86.4%). Needle cutters were not used in most of the places (68.2%). 27.3% doctors reported that they had needle stick injury in the past but only 77.3% used protective gears. Most of the nurses/ technicians reported that at their place of work generally needles were collected (60.0%) and only in 33.3% cases it was stored in puncture proof containers or bags. Needle cutters were not used at most of the places (73.3%). Unfortunately 73.3% participants in this category told that they had needle stick injury in the past. Only 23.3% used protective gears. Sharps were collected in open bins (66.7%) or secure puncture proof containers (33.3%).

Conclusions

Biomedical waste management practices are not very satisfactory. Health care staff should be sensitised to use proper waste disposal practices. Concerted efforts are needed from all concerned people.

Key Words: Health care waste, health care staff, needle stick injury

General Physicians' Perspective towards Obstructive Sleep Apnea

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Introduction

Sleep medicine is a relatively new field of medicine in India. Sleep complaints are one of the most common presenting complaints to health care providers. Of these, obstructive sleep apnea (OSA) is a major sleep disorder causing excessive daytime sleepiness, decreased work productivity by imposing medical risks to patients and decrease in the quality of life. Although sleep breathing disorders are common in the community, its exact prevalence is not known. This is partly due to lack of formal epidemiological data from the Indian subcontinent and partly due to lack of awareness amongst physicians. **Aims:** To evaluate the knowledge and attitude of primary care physicians in the diagnosis and management of OSA thus assessing the overall awareness of physicians towards OSA. To assess if measures need to be taken to increase the awareness of primary care physicians about sleep disorders.

Materials and Methods

A well developed and validated questionnaire-the obstructive sleep apnea knowledge and attitudes questionnaire(OSAKA) was used to interview general physicians (42 non specialist doctors) in the practising in the vicinity of a tertiary care hospital (Sir JJ group of Hospitals) in a metro city (Mumbai).

Results

Less than 50% of the physicians could answer half of the knowledge items correctly. Association of snoring, motor vehicle accidents, cardiovascular events could be identified by more than 60% of the physicians. But only 41% of physicians recognised the association of OSA and hypertension. 65% physicians identified overnight sleep study being the gold standard for the diagnosis of OSA. CPAP was identified as the first line therapy for OSA by 68% physicians.

Conclusions

Despite increasing evidence of the role of sleep in patient health and well-being its clinical significance is still being neglected. Awareness of sleep related disorders amongst practising general physicians is not satisfactory.

Key Words: General physicians, Obstructive Sleep Apnea(OSA), awareness, OSAKA, sleep medicine

General Awareness of Pharmacovigilance Programmes in Medical Students

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Introduction

Pharmacovigilance is the science and activities relating to the detection, assessment, understanding and prevention of adverse effects or any other drug-related problem. The awareness about clinical trials and pharmacovigilance in India has not reached to its maximum amongst the health care

professionals. One of the key skills that undergraduate medical students should develop during their training is to be prepared for safe medical practice. This concept is usually diluted or ignored in most medical curricula. Medical students should play a more active role in reporting the adverse drug reactions. Aims: To evaluate the level of awareness of Pharmacovigilance programs among medical students.

Materials and Methods

Study center and population: Students of Kasturba Medical College, Manipal, with a background of pharmacology. 2- 3 months . Study validation: This qualitative questionnaire based study has questions validated by experienced professionals. The study protocol tool was examined and validated by conducting a well designed pilot study. Study sample size: 196, according to WHO Epi info software. 325 Scoring(A) Questions answered correctly +100 points (B) Questions answered incorrectly +00 points (C) Questions with multiple answers +01 points for each answer Analysis and management: Descriptive statistics and multiple response analyses will be conducted using SPSS 16 software (SPSS Inc, Chicago, Ill). A p-value less than 0.05 will be considered significant.

Results

A total of 196 students participated. Among the four categories of the questionnaire survey, students were excellent (>60% reciprocated with positive response) in first one, importance of pharmacovigilance. In the second category, status of PV in India, majority of them had good concept (35% answered excellently, 34% good and 29% gave poor response). In the third one, causality assessment and ADR's reporting many were ignorant (>90% poor knowledge). However they scored better in adverse reactions and events (>50% answered correctly).

Conclusions

Students scored average and their knowledge was less than expected. Hence it is mandatory to educate students at the grass root level.

Key Words: Pharmacovigilance

Pattern of In-patient Referral to Psychiatry in a District Hospital in a Month.

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Introduction

The psychiatric morbidity is on a rise since last few decades due to globalisation and life style changes. This has increased the significance of Psychiatric referral. There is converging evidence that out-patients and in-patients of all ages attending general hospital as well as teaching hospitals suffer from a wide variety of psychiatric disorders and need psychiatric referral and evaluation. A referral encompasses an array of functions: beyond the clinical benefit to the patient there are educational and research-related benefits to the physicians. Aims: 1) To study the referral pattern in patients from other departments to psychiatry in a month in a District general hospital. 2) To find out the co-relates of type of referral and age, gender, speciality, days after admission and outcome.

Materials and Methods

A retrospective study conducted at Krishna-Rajendra hospital attached to Mysore medical college and research institute, Mysore. Out of 127 inpatients referred from other departments to Psychiatry in the month of January 2011, only 103 could be analysed. Socio-demographic data, Department of referral, Psychiatric diagnosis and outcome were studied using a proforma specially designed for this purpose.

Results

Nearly one-third of referrals belong to age group of 21-30 and another one-third from 31-40. Predominantly five major department of referral were identified. The key department came out to be medicine (78%), followed by surgery (11%). Two-third of clinicians responses were within 4 days of admission. Major referral included depressive disorders (33%), Deliberate Self Harm (23%) and Alcohol Dependence syndrome (18%). Three-fourth of the subjects were treated completely and 10% had partial improvement. Statistical significance was found between psychiatric diagnosis and age, department of referral, days of referral and outcome (p

Conclusions

Depressive disorders, Alcohol Dependence and suicidal tendencies have been encountered commonly in this geographical part. Need for interventions to reduce suicidal tendencies in community should be taken up as a top priority by health care providers, users and policy makers. Integrating mental health care in primary care has shown good outcome which is worth emulating.

Key Words: Pattern of referral, psychiatric morbidity, general hospital.

Menstrual Pattern in Adolescence and its Relation to BMI

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Introduction

Adolescence, the transition between childhood and adulthood, is a period of active growth and development and is characterised by immense hormonal changes. Menstruation is one such change seen in the adolescent female. However, owing to the immaturity of the hypothalamo-pituitary ovarian axis, long and irregular periods are common. Irregularities are also due to other causes like extremes of weight, stress and lack of exercise. Aims: To collect data on the pattern of menstruation and prevalence of menstrual disorders in adolescents and to establish its relation to BMI.

Materials and Methods

The study was conducted at PSG Sarvajana Higher Secondary School, Coimbatore. Female students in the age group 14-17 were randomly selected. Questionnaires were filled by 103 students and results were analysed.

Results

Mean age of subjects was 15.43 years. Age at menarche was between 13-15 years for 75.73% of subjects. 12.62% had a cycle length of more than 35 days. Duration of flow was decreased in 22.33%. Irregularity of cycles was seen in 20.38% of subjects.

Premenstrual symptoms and dysmenorrhoea were seen in 83.49% and 65.05%. Of the 103 students, 20.38% were obese and 53.39% underweight. Among the 21 students with increased BMI, 33.3% had increased cycle length, 42.85% had irregular cycles, 28.57% had decreased flow and 4.7% had increased flow. Premenstrual symptoms and dysmenorrhoea were seen in 90.47% and 61.9% respectively. Most of the subjects were underweight and disorders such as oligomenorrhoea, irregularity of cycle, dysmenorrhoea and premenstrual symptoms were widely prevalent.

Conclusions

Menstrual variations and irregularities were found to be widely prevalent. Irregularity of cycles was seen in 20.38% of subjects of which 42.86% were obese. Increased cycle length was seen in 12.62% (53.84% obese) and decreased duration of flow was seen in 22.33% (26.09% obese). Dysmenorrhoea and premenstrual symptoms were seen in 65.05% and 83.49% respectively. Increased irregularities such as irregular pattern and duration were seen in students who were obese and also those who were underweight. Awareness and correction of factors such as body weight, psychosocial stress and lack of exercise is essential in maintaining reproductive health through adolescence to adulthood.

Key Words: Menstrual pattern, menstrual irregularities, adolescents, BMI