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To evaluate whether Cystatin C is an effective marker of renal damage in elderly patients with cardiovascular diseases.

Aaditya Anil Prabhudesai, Nilanjana I Guha Niyogi

3rd Year; MBBS, Grant Medical College; Mumbai
Contact Info: p.aaditya@gmail.com

Introduction

Cardiovascular diseases (CVDs) are leading cause of morbidity and mortality taking toll of 17.9 million potentially productive life years annually in an Indian set up. Chronic CVDs damage kidneys in elderly individuals that goes undetected since decreased muscle mass affects prediction by measuring serum creatinine (Sr Cr). Can Cystatin-C (Cys-C), a protease inhibitor, predict renal damage in elderly individuals with advanced CVDs?

Materials and Methods

The case control study was undertaken with patients diagnosed of advanced CVDs like MI on the basis of clinical evaluation and ECG. Patients of age group 55 to 75 years were recruited. On the basis of history, patients with chronic conditions like diabetes mellitus, cancer, thyroid pathology and inflammatory diseases were excluded. Equal number of healthy candidates are incorporated as controls. After obtaining valid, written, informed consent the serum of candidates was analyzed for Cys-C (Immunoturbidimetry) and Sr Cr (Spectrophotometry). The data was analyzed statistically by student's "t" test and chi square test.

Results

A total of 21 advanced CVD cases were admitted to the hospital during study period. The Cys-C value [6.300±1.0751] was highly significant than in control [1.0165±0.4215] ($p < 0.001$). As against the same was not significant in case of Sr Cr.

Conclusions

The muscle mass decreases with advancement of old age. Estimation of creatinine thus probably unreliable, in elderly patients, since production of creatinine is dependent on muscle mass. Thus, concluding that serum estimation of endosomal protease regulator Cys-C is effective marker of renal damage in chronic cardiac pathology in elderly patients. Calculation of GFR and eGFR for Renal Function is cumbersome with Creatinine since it requires 24 hour urine collection whereas its simpler with Cys-C since it quantifies serum.

Key Words

Cystatin-C, Cardiovascular Diseases

A study on Cold Chain Maintenance Practices and Vaccine Administration Technique in hospitals of Mangalore City- A Health System's Research

Aakanksha Aggarwal,

3rd Year; MBBS; KMC, Mangalore
Contact Info: heyaakanksha@yahoo.co.in

Introduction

Vaccination efforts have been successful in preventing and eradicating vaccine-preventable diseases in part because of proper vaccine storage and handling practices. Failure to adhere to these practices can result in inadequate immune responses against the disease. The aim of the present investigation was to study the Cold Chain Maintenance practices and Vaccine Administration Technique in government and private hospitals and vaccination centres of Mangalore City.

Materials and Methods

The present descriptive study was conducted in 16 hospitals (8 government and 8 private) of Mangalore City with regard to cold chain maintenance and vaccine administration technique. A pretested semi-structured proforma based on guidelines of CDC was used for this purpose.

Results

Out of 8 hospitals each in the government and private sectors, thermometer in refrigerator was available in 7 (87.5%) government and 2 (25%) private hospitals. Required temperature range was maintained in 4 (50%) government and 1 (12.5%) private hospital. No private hospital had a thermometer in freezer whereas 7 (87.5%) government hospitals had a thermometer in freezer. Temperature log was maintained only in the government sector. "Do Not Unplug" sign was missing in all the hospitals. Eatables stored in refrigerator were seen in 1 (12.5%) private hospital. Aseptic precautions were not followed in 7 (87.5%) government and 3 (37.5%) private hospitals. Hand gloves were not used anywhere.

Conclusions

Maintenance of cold chain practices was far better in the government sector as compared to the private sector.



Maintenance of aseptic technique while vaccine administration was better in the private sector. Hence, there is a need to conduct training programmes periodically for the health personnel.

Key Words

Health Systems' Research, Cold Chain Maintenance, Vaccine Administration

A cross sectional study on behavioral patterns and levels of aggression in students of KMC, Mangalore

Aaron Mascarenhas, Sujitha Yadlapati, Teena Luke Thomas, Shibhani Hegde, Venita Fernandes

2nd Year; MBBS; KMC, Mangalore
Contact Info: aaronmascarenhas@gmail.com

Introduction

Aggression is very common and frequently neglected in our society. Information on patterns of aggressive behaviour is lacking in India. Our study aimed at studying the patterns and levels of aggression and the factors influencing them, among the students of Kasturba Medical College, Mangalore.

Materials and Methods

A cross sectional study, using a self-administered questionnaire was conducted. Data was collected from 391 students of 1st, 2nd and 4th year on baseline characteristics. Various events were also taken into account and students were asked to indicate if they had experienced any. The study was conducted in March 2010. The collected data was coded and entered into SPSSv11.5 for statistical analysis. Chi square test was used to determine the risk factors and $p < 0.05$ was considered significant.

Results

Out of 391 students who completely filled the questionnaire, 162(41.4%) were male and 229(58.6%) were female. Significantly high levels of aggression were seen in 25%(n=97) of the population. Hostility and physical aggression were found to be the most common patterns of aggression 31%(n=172) and 30.16%(n=168) respectively. 25% of the students who were raised by single parents were found to have very high levels of aggression as compared to 6.5% who were raised by both parents ($p < 0.002$). Among individuals who admitted to substance abuse 35.7% showed very high levels of aggression as compared to 5.5%, who did not ($p < 0.001$). Among individuals who were involved in gang violence, 23.2% showed very high levels of aggression as compared to 5.1%, who were not. Very high levels of aggression were shown by 13% of individuals who had been bullied in the past. Very high levels of aggression were seen in 14% of individuals who had noticed aggressive behaviour in family members.

Conclusions

Hostility and Physical aggression had the highest prevalence. Of the risk factors analysed sex, parenting, aggressive behaviour in the family, bullying, gang violence were statistically significant.

Key Words

Aggression, hostility, behaviour

Seizure disorder in children- a study of clinical profile , EEG and CT scan

Aarthi Madhana Kumar,

Final Year, MBBS, IRT Perundurai Medical College, Perundurai, Erode, Tamil Nadu

Contact Info: aarthimadhan@yahoo.co.in

Introduction

Seizures are common in pediatric age group (10%). The cumulative life time incidence of epilepsy is 3%, more than half the cases begin in childhood. EEG is generally recommended in the evaluation of children with seizures but many studies conclude that neuroimaging is not required for all children with seizures, since the likelihood of finding structural abnormality in neurologically normal children is very less. Under this context, in the evaluation of children with seizures who are neurologically normal, is obtaining CT along with EEG on a routine basis warranted?

Materials and Methods

It is a record based cohort study (retrospective) of 64 children with seizure disorder treated as inpatients in the department of Pediatrics, IRT-PMCH during the period of 2008(jan)-2010(jan). The clinical profile, diagnosis, investigations (CT and EEG) were obtained from inpatient case records. Our cases were grouped as neurologically normal (75.58%) and neurologically abnormal children (24.41%) based on clinical profile and assessed independently.

Results

Among neurologically normal children,

☐ EEG abnormal in 81.08% , CT scan abnormal in 8%. EEG abnormality was compatible with the clinical diagnosis. CT abnormality found was healed tuberculoma which was already treated with anti TB drugs.

☐ Complex partial seizures accounted for 31.25% of the neurologically normal children, EEG was abnormal in 87.5% and CT abnormal in 11.67%.

Conclusions

EEG has an undisputed role in the diagnosis of seizures in children. No significant findings were revealed on CT even in children with Complex partial seizures which is often associated with structural abnormalities. Thus, a physician can arrive at a definite clinical diagnosis in children with seizures who are neurologically normal with an elaborate history and EEG alone rather than neuroimaging. A definitive criteria for obtaining neuroimaging in children with seizures must be established based on their neurological status.

Key Words

Seizure Disorder, CT/EEG Correlation



Clinical Profile of Children With Cerebral Palsy and Knowledge and Expectations of Their Parents Regarding the Disease.

Abhinav Grover, Dr Anju Aggarwal

4th Year, UCMS, Delhi
Contact Info: abhinav.grover1@gmail.com

Introduction

Appropriate management of children with cerebral palsy will depend on etiological diagnosis and knowledge of parents about the disease.

Materials and Methods

Fifty children, 2-12 years, diagnosed with cerebral palsy attending Child Development Clinic were studied. Children's demographic, clinical and radiological profile was recorded. Parents of these children were interviewed using a questionnaire to find out their knowledge and expectations.

Results

There were 39(78%) male patients. Most common diagnosis was quadriplegic spastic cerebral palsy (80%). Microcephaly was present in 80%. Associated abnormalities were mental retardation(100%), seizures(48%), high arch palate(16%), squint(36%), nystagmus(4%) and hearing abnormalities(30%). History of birth asphyxia was present in 68%. Neuroimaging was done in 25 (50%). Most common finding was cerebral atrophy (24%), periventricular leukomalacia in 18% and malformation 8%. Knowledge of parents about nature of disease was deficient (70% said that cerebral palsy is a mental disorder). Knowledge of parents about other aspects was – Cause? 10(20%) replied birth asphyxia, 5 brain injury, 10 brain fever, 4 other causes and 21(42%) said they did not know. Is the disease curable? 25(50%) said no, 19(38%) said yes. Is it treatable? 43(86%) said yes, this was encouraging. Treatment? 34(78%) said both physical therapy and drugs. Is it contagious? 36(72%) said no. All parents received these informations from doctors. There was no correlation of maternal or paternal education with knowledge about cerebral palsy ($P > 0.05$). Most parents 72% expected physical improvement, 54% mental improvement, 78% wanted the child trained in daily activities, 52% wanted to educate their child.

Conclusions

Neuroimaging was useful in determining the etiology of cerebral palsy. Parents of children with cerebral palsy should be educated to improve their knowledge about certain aspects of cerebral palsy for better management of these children.

Key Words

Cerebral Palsy, Parents Knowledge, Children

Mitochondrial Complex-I May Be Fundamentally Altered In Malignant Cells.

Abhishek Maiti, Alok Ghosh, Manju Ray

Intern, MBBS, NilRatan Sircar Medical College & Hospital (NRSMCH), Kolkata

Contact Info: dr.abhishek.maiti@gmail.com,
xpabhishek@gmail.com

Introduction

Previous work at our laboratory has indicated that methylglyoxal, a normal metabolite, inhibited respiration of a wide variety of human malignant cells, but had no effect on the respiration of normal cells. This inhibition was found to be at the level of mitochondrial Complex-I. As methylglyoxal has been found to react with arginyl, lysyl residues, thiol and amino groups of proteins and enzymes, it appears that a vital protein component(s) in mitochondrial complex-I may be specifically altered in malignant cells. However there is no systematic study to understand whether mitochondrial complex-I of malignant cells is fundamentally different from that of normal cells.

Materials and Methods

To investigate this, we used a 3-Methylcholanthrene induced sarcoma model in mice. Mitochondria were isolated by differential centrifugation from sarcoma and from normal mice muscle tissue for comparison. Mitochondrial Complex-I was then isolated by Blue Native Polyacrylamide Gel-Electrophoresis (BN-PAGE). It was further resolved into different polypeptides using Sodium Dodecyl Sulphate Polyacrylamide Gel-Electrophoresis (SDS-PAGE).

Results

We found an over-expression of a subunit of mitochondrial complex-I having a molecular weight of nearly 49 kDa in the sarcoma tissue compared to normal mice muscle.

Conclusions

A 49 kDa subunit of mitochondrial complex-I, probably the same crucial subunit encoded by the gene NDUFS2 is over expressed in 3-Methylcholanthrene induced sarcoma in mice in comparison to normal mice muscle. Given the current evidence, ATP requirement of malignant cells and the significant role of mitochondrial complex-I in generation of ATP, it appears that mitochondrial complex-I may play a pivotal role in malignancy. Further studies are needed to elucidate the exact role of mitochondrial complex-I and this 49 kDa subunit in the molecular mechanism of neoplasia and hence to further determine the potential of this complex/subunit as pharmacotherapeutic targets for the control of malignancy.

Key Words

Mitochondrial Complex-I, Malignancy, NDUFS2

A Study on Possible Association of Erythrocyte Catalase Activity and Its Gene Polymorphism (-21 A/T) in Diabetic Subjects (Ref Snp Id: Rs 7943316)

Abirami Shantharam, B.Padma Keerthiga, Baskaran.K

3rd Year, MBBS, RMMC, Chidambaram.
Contact Info: abidreams.12@gmail.com

Introduction

Oxidative stress causes various damage to tissues and plays an important role in inflammation especially in diabetic patients. In diabetics, oxidative stress is thought to be increased due to excessive free radical generation and reduced anti-oxidant



status. Catalase is an important enzyme, involved in removal of hydrogen peroxide which makes it an important anti-oxidant enzyme. -21 A/T polymorphism in catalase gene has been shown to have association with erythrocyte catalase levels in an earlier study conducted involving Chinese population. They also observed an association of this single nucleotide polymorphism (SNP) with diabetic complications. So the present study has been designed to explore the association of this SNP with erythrocyte catalase activity in our population.

Materials and Methods

DNA was extracted from 25 diabetic patients. Polymerase chain reaction was done on catalase gene using specific primers. Polymorphism was identified by restriction fragment length polymorphism using hinf-II restriction enzyme.

Results

80% of diabetic patients who had T allele were associated with low catalase levels. 20% were heterozygous. No 'A' allele was detected in the study group.

Conclusions

There is a possible association between catalase gene polymorphism (-21 A/T) and the enzyme levels in diabetic. This study should be carried out in a large population for its further usefulness.

Key Words

Single Nucleotide Polymorphism(SNP), Catalase, Diabetes.

Pathways to Clinical Care in Schizophrenia, Tuberculosis and Diabetes mellitus

Aditi K, C Naveen Kumar

*3rd year; MBBS; BMCRI, Bangalore
Contact Info: aditikumar20.5@gmail.com*

Introduction

"Pathways" means, the sequence of contacts with individuals and organizations prompted by the distressed person's efforts, to seek help as well as the help that is supplied in response to such efforts. This concept is an important as it may provide the critical link between the onset of psychiatric problems and the provision of mental health care. This is true of other disorders like Tuberculosis and Diabetes Mellitus also. A better understanding of the patient's care-seeking behavior is needed to identify barriers to the timely diagnosis and institution of proper treatment.

Materials and Methods

Consenting adult patients with Schizophrenia, Diabetes or Tuberculosis (50 in each) will be recruited from Victoria Hospital, Bangalore. Information is collected using a semi-structured interview schedule. Data is tabulated and analyzed using the Statistical Package for Social Sciences -Version 13.

Results

The most important finding of this study is that there is a significant delay in accessing standard medical care among Schizophrenia patients. On an average, Schizophrenia patients take three and a half years before consulting any medical doctor when compared to a month in cases of Tuberculosis and about three months with Diabetes. Also, almost all patients in

the Diabetes and Tuberculosis group first consulted a medical doctor for their symptoms, while only sixty four percent of Schizophrenia patients consulted a medical doctor directly. Rest of the Schizophrenia patients visited religious places for healing.

Conclusions

This study of patients has shown that Schizophrenia patients take a significantly longer time to reach a medical doctor to seek treatment. This delay occurs due to the visits to religious places for healing. Sensitizing healers at such places and improving awareness among public about the medical nature of the symptoms of Schizophrenia is another important strategy to reduce the time taken by Schizophrenia patients to reach medical doctors.

Key Words

Pathways, Sensitizing Healers, Improving Awareness

Students' Perception of Their Educational Environment for Community Medicine in a Medical College in Coastal Karnataka.

Aditya Shetty H., Siddharth Bhattacharjee , Kripali Rai , Chaithra M, Thriveni Acharya , Sherifa

*2nd year ; MBBS ; KMC, Mangalore
Contact Info: adishetty06@gmail.com*

Introduction

Educational environment is one of the most important factors determining the success of an effective curriculum. The perceptions held by students of their educational environment are integral to their academic experience, rendering it vital that this aspect is evaluated. This study was done to determine if students' perceptions of their learning environment in community medicine differed between the 6th and 8th semester students or between males and females.

Materials and Methods

A cross sectional study was conducted on the medical students of Kasturba Medical College, Mangalore ,using the DREEM (Dundee Ready Education Environment Measure) questionnaire . Data was collected on 386 students of 6th and 8th semesters. The study was conducted in February 2010. Data obtained was entered into Microsoft Excel and analysis was done using SPSS version 11.5.The mean scores were taken and analysis was done using Students 't' test and p< 0.05 was taken as statistically significant.

Results

Out of the 386 students who filled the questionnaire completely (response rate – 93.7%), 52.69% were males 47.31% were females. There were no significant differences in the overall DREEM score of the 6th and 8th semesters. The overall mean score of both the semesters shows a more positive than negative response . Students perception of their educational environment did not vary with gender. In both the semesters the perception held by students' of their teachers scored the highest when compared with other subscales and students social self perception scored the least.

Conclusions



The study has revealed that students of both the semesters perceive their educational environment for community medicine positively. But, the study has also brought forward the necessity to introduce measures to provide support to students dealing with stress.

Key Words

Community Medicine, Perception

A Questionnaire Based Study on Knowledge, Attitude and Practices Regarding, Social Attitudes and HIV/AIDS Among Children of Commercial Sex Workers

Aishani Shah, Dr. Sampada Tambolkar M.D

3rd year, MBBS; DY PATIL Medical College, Pimpri, Pune.
Contact Info: aishanishah9@gmail.com

Introduction

To assess knowledge, attitude, and practices of adolescent students of commercial sex workers in relation to HIV/AIDS, give recommendations about important issues identified during study. The social status of the Commercial Sex Workers widely affects their children. Their children are exposed to the problems from a very young age and it is important to spread awareness about HIV/AIDS among them. The particular age group was chosen because of its maximum exposure

Materials and Methods

Students between the age group 10-15 yrs from the particular school. After the approval of the IEC, permission was taken from the Principal of the school and parents of the students. Then they were given a Pre-Standardized Questionnaire in which they had to fill their age. Anonymity was assured. The questionnaire was translated into Marathi by NCERT experts, for students.

Results

The awareness on the physical aspects of growing up was good. The awareness about menstrual issues was poor though majority of the sample was females. The knowledge of ANC & its benefits were not adequately known. The awareness about teenage pregnancy & its hazards was good. They were relatively well informed about HIV causing decreased immunity & its spread by unsafe sex. But they were ignorant about its spread by infected syringes, needles etc. This is important as these children may be exposed to such things due to the environment in which they live in. Attitude towards females was not very encouraging. Majority thought that major decisions in the family need to be taken by the male members. Only 14% felt that it was incorrect to proceed with antenatal sex detection. Majority felt that trying cigarette once would not lead to addiction.

Conclusions

There were a total of 36 girls and 14 boys. Results were on generalized basis. It was a descriptive study, and there were no comparisons. The point of highlight was the lack of knowledge about HIV spread and means of acquiring the infection. Attitudes towards females and social issues were disturbing.

Key Words

HIV/AIDS, CSWs.

Perinatal Outcome in Pregnancy With Sickle Cell Disease

Akshay Kriplani,

Final Year, MBBS, Jawaharlal Nehru Medical College, Wardha
Contact Info: akshaykriplani@gmail.com

Introduction

Sickle cell disease is a hereditary haemoglobinopathy characterized by production of defective haemoglobins. There is a high prevalence (5.7%) in pregnant woman in Central India. Fetal wastage is common and more than one third of such pregnancy terminates in abortion, still birth or early neonatal or perinatal deaths. This study was undertaken to assess the complications during perinatal period and pregnancy outcome in such women.

Materials and Methods

Pregnant females admitted to obstetrics ward of rural hospital over 6 months were studied retrospectively with 2 months of prospective study. Sickling positive women were included as cases. Cases were further screened for AS or SS character. The babies were examined for fetal outcome, gestational age, Birth weight, APGAR scoring and NICU admission. Data was interpreted statistically and analyzed.

Results

Study comprised of 50 subjects (25 cases and 25 controls). Of the total cases, 4 (16%) were positive for sickle cell anaemia (SS) and 21 (84%) were positive for sickle cell trait (AS). Mean Hb levels in SS group (7.5 g/dL) was lower as compared to AS group (8g/dL) or AA group (9.1g/dL). There were more cases of UTI (25% in SS and 33% in AS), Pre-eclampsia (25% in SS and 14% in AS) and intra uterine death (25% in SS and 5% in AS) in Sickle cell patients as compared to AA group. Incidence of LBW was 100% in SS and AS group and 16% in the control group. 2 of 3 infants of SS mothers required Intensive care

Conclusions

Incidence of adverse fetal outcome like intra uterine death, LBW and low APGAR scores were observed more in sickle cell mothers. This increases the need of intensive care of the neonate. Meticulous care, with hematologic consultation and adequate nutrition with iron and folic acid supplements during the perinatal period is strongly recommended.

Key Words

Perinatal Sickle cell ; Sickle cell Mothers ; Pregnancy in Sickle cell Anaemia



Drinking Water Sources, Treatment and Storage Practices Among the Households in an Urban Area of Mangalore – A Community Based Cross Sectional Study

Alok Shetty K, Prasanna Mithra, Prithvishree Ravindra, Tamanna Ahemad, Sanjay Kumar S, Naseeba, Abhijit Samal

2nd Year; MBBS; KMC, Mangalore
Contact Info: alokshetty4@gmail.com

Introduction

Globally, 1.1 billion people lack access to improved drinking water supply and drink water that is grossly contaminated. Hence, study of water treatment assumes utmost importance in order to ensure the safety of the water consumed, especially in rapidly developing cities. This study would provide information of drinking water management practices in the study area.

Objectives are to study the sources, treatment and storage facilities of drinking water in households and to assess the free chlorine levels in the drinking water.

Materials and Methods

This community based cross sectional study was conducted in Mangalore, Karnataka. Using convenient sampling, 100 households were selected and visited in the area of Boloor. Information was collected regarding demographic profile, household drinking water sources, treatment and storage practices followed by testing for free chlorine in the drinking water using O-Toluidine.

Results

83% of the study population had their main source of drinking water from municipality, and 17% had a private water source. Among those with a private water source, 6% households had bore wells, and 10% had protected dug wells. Overall, 99% households had an improved source of drinking water. Sumps were present in 32% of the households. Among them, 34.4% cleaned it once a month. Boiling was found to be the preferred choice of water treatment(74%); but 5% of the population did not use any method to treat water in their households. 92% of the households stored drinking water and 34% dipped the glass into storage vessel using hands before drinking. 84.2% of the households cleaned their storage vessel daily. O-Toluidine test showed no free chlorine in drinking water in any of the houses.

Conclusions

A majority of the study population had access to improved water source. However households lacked appropriate storage and handling practices of drinking water which needs to be evaluated further to ensure the safety of the water consumed.

Key Words

Water, Households, Urban

The Association of Sports With Academic Performance

Amal Pushp Singh,

3rd year; MBBS; KMC, Mangalore
Contact Info: amalps88@gmail.com

Introduction

Today we are under the misconception that academic success in student's life depends on the amount of time spent on studying. Studies have shown that sports help in relieving stress, improving concentration and building competitive nature. Whereas some studies show that students taking sports too seriously start neglecting their academics. This study was done to find out hindrance of sports on academic performance, amount of time spent playing, gender difference in sports performance and number of sports students take part in.

Materials and Methods

Cross sectional study was done in KMC Mangalore with study population of 200 students. 100 sporting and 100 non-sporting belonging to different batches. Data was collected using a pre-tested semi-structured questionnaire. Collected data was tabulated and analyzed using X2 test in SPSS version 11.5.

Results

55% males play sports compared to 45% females. 50% sporting individuals spend 1- 2 hours per day. Majority (24%) spend 6 day per week on sports. 48% prefer outdoor sports to indoor. 47% prefer playing both. 49% play 2- 4 sports. 40% play cricket followed by basketball (37%). 83% prefer to take part in individual sports. 75% play for enjoyment. Playing does not affect 69% student's academic result. Majority (89%) do not play sports during exams. 63.4% student believe that sports do not affect their result. Majority (57%) sporting student spend less than 2 hours a day on studies compared to non-sporting (52%) spend 2 to 4 hours on their studies.

Conclusions

It was seen that non-sporting students excel more in academics compared to sporting ones. However both get 1st and 2nd class in equal number. Majority (88%) sporting students give moderate time (1-3hrs) to sports. Sporting individuals include more males.

Key Words

Sporting, Non-Sporting, Academic

Assessment of Awareness of Glaucoma in the Population Attending Ophthalmology Out-Patient Department (OPD)

Amit Palkar, Dr. Madhuri Pattiwar

Intern; MBBS; Rajiv Gandhi Medical College, Thane
Contact Info: amit.plk@gmail.com

Introduction

Glaucoma remains the second leading cause of preventable irreversible blindness in India, despite early detection opportunities but late presentation of patient. The purpose of



the study is to determine the level of awareness and knowledge of glaucoma and assess the impact and effectiveness of the public awareness strategies implemented for prevention.

Materials and Methods

A Knowledge, Attitude & Practice (KAP) study was conducted in the Ophthalmology OPD at C.S.M. Hospital, Thane. A simple random sample of 205 subjects above 18 years responded to a self administered questionnaire, assessing the awareness and knowledge levels of glaucoma and attitudes, and practices towards eye care. Awareness was defined as 'have heard of glaucoma' and Knowledge as 'have an understanding of glaucoma'.

Results

Out of the total 205 subjects, 49.8% (n=102) were aware of glaucoma. Among the aware, 71.5% (n=73) were unable to describe glaucoma. 1.9% had excellent knowledge about glaucoma, 21.5% had good knowledge, 50% had fair knowledge and 26.4% had poor knowledge. Higher education levels were well aware of glaucoma (p=0.0017). 14.7% assumed glaucoma and cataract as the same disease. 25.5% reported increased eye pressure as a cause of glaucoma but only 2.9% could associate it to damage of optic nerve. Amongst the upper education levels, 92.8% were aware of vision loss in glaucoma (p=0.002) but 97.5% denied the loss of vision to be irreversible (p=0.04)

Conclusions

Awareness level of glaucoma seems considerably equal to unawareness, but overstated. The level of knowledge portrays the real depth of understanding of the disease. The self eye care attitude and practices can be improved with improved awareness and knowledge. The study implies the need for extensive health interventions for public awareness and revision, continuation and boosting up of the existing eye care strategies.

Key Words

KAP Study, Awareness, Knowledge

Thrombocytopenia in Malaria – A Correlation With Type and Severity of Malaria

Amruta Tripathy, Sharada Rai

*Final Year, MBBS, KMC Mangalore
Contact Info: amrutatripathy4u@gmail.com*

Introduction

Malaria occurs in the tropical regions resulting in over 100 million cases and about 1 million deaths every year. It is commonly associated with mild hematological abnormalities including thrombocytopenia. Severe thrombocytopenia is a well known complication of P.falciparum malaria. Recently, a few cases of profound thrombocytopenia associated with P.vivax malaria have been described. In view of paucity of data from India, in this study we are attempting to correlate the severity of thrombocytopenia and the type of malaria (P.vivax vs. P.falciparum).

Materials and Methods

Seventy five patients attending the outpatient department of Kasturba Medical College (KMC) hospital with a diagnosis of malaria on peripheral smear examination or quantitative buffy coat examination (QBC) were included in the study. Platelet

count at diagnosis was correlated with the type of malarial infection. The severity of malaria and thrombocytopenia was expressed as mean \pm 2 Standard deviations.

Results

Of the 75 patients, 50 showed P. vivax infection, 15 showed P. falciparum infection and 7 showed mixed infection. Three patients showed no parasite on peripheral smear (thin) but were positive for malaria by QBC. Thrombocytopenia (platelet count less than 150,000/ μ L) was found in 67 (89.33%) cases. Out of these 67 cases, 5 were found to have profound thrombocytopenia (platelet count less than 20,000/ μ L). Among these 5 cases, 3 had P.falciparum malaria, 1 had P.vivax malaria and 1 had mixed malaria. In relation to parasitemia, a significant decrease in the platelet count was observed with the rise in parasitemia. The mean platelet count was the least when the parasitemia was highest, that is, 1.00%.

Conclusions

Thrombocytopenia was found in 67 (89.33%) cases. The presence of thrombocytopenia is not a distinguishing feature between P.falciparum and P.vivax malaria. Profound thrombocytopenia can occur in P.vivax malaria. The severity of thrombocytopenia correlated with the increasing parasitaemia in the peripheral blood.

Key Words

Thrombocytopenia, Malaria, Parasitemia

Alarming Imipenem Resistance of Pseudomonas Species Isolated From Exudate Samples.

Anish Sunder Narayanan.S, Arivarasan.S, Dr.Jeya.M

2nd Year; MBBS; Chettinad Hospital and Research Institute, Chennai

Contact Info: sunderanish@gmail.com

Introduction

Pseudomonas isolates are showing resistance to β -lactam antibiotics, which includes Penicillin group of drugs and Ist, IIInd, IIIrd, IVth generation cephalosporin group of drugs including fluoroquinolones and aminoglycosides. Carbapenem is a newer group of drug and imipenem comes under this group. Middle class and low economic status people cannot undergo treatment with this drug because of its high cost. If it becomes resistant to imipenem then, only polymixin and colistin are the alternate, which causes nephrotoxicity. This study gives a warning signal to the clinicians regarding the alarming drug resistance pattern of the Pseudomonas species and to stress the necessity to follow the antibiotic policy.

Materials and Methods

The study was conducted in a tertiary care hospital in Chennai for a period of 14 months (1/1/2009 to 28/2/2010). Exudates from 1240 patients were cultured on sheep blood agar and MacConkey plates and incubated at 37^o C. By the specific colony morphology and biochemical reactions, Pseudomonas species were isolated. 208 Pseudomonas isolates were subjected to antibiotic susceptibility testing for gentamicin, ciprofloxacin, ofloxacin, ceftazidime, amikacin, piperacillin, tazobactam, ceftazidime, clavulanic acid, cefeprozone-sulbactam, cefepime, aztreonam, netilmicin, tobramycin, imipenem, polymixin and colistin by Kirby Bauer disc diffusion method. Susceptibility pattern and the percentage of imipenem



resistant strains were noted.

Results

Total numbers of exudate samples processed in 14 months were 1240. Pseudomonas species were isolated from 208(16.77%) samples. 190(91.3%) isolates were susceptible to imipenem. Isolates resistant to imipenem were 18(8.7%). All the imipenem resistant isolates were P.aeruginosa. 6(33%) of imipenem resistant strains were resistant to colistin out of which 2(11%) were resistant to both Polymyxin and colistin and to all available antibiotics.

Conclusions

The imipenem resistance percentage of Pseudomonas is gradually increasing. Two of the imipenem resistant Pseudomonas strains are also resistant to all the available antimicrobial drugs.

Key Words

Pseudomonas, Imipenem, Resistance

Unnatural Female Deaths In Pondicherry: A Profile

Anitha.T, Ezhisai.J, Anju Devasia

3rd year; MBBS; Shri Lakshmi Narayana Institute of Medical Sciences, Puducherry
Contact Info: durai.anitha@gmail.com

Introduction

Unnatural deaths of females are very common in Indian society. As per 2001 censuses, the male: female ratio 933:1000, shows a decline in the female population. This study aims at the assessment of total number of unnatural female death cases registered during 2009 in Pondicherry, and also to analyze the various causes of unnatural female deaths.

Materials and Methods

A retrospective study was done by collecting data from Government Hospital, Pondicherry. The respective officers were legally approached for the data on unnatural female deaths from January – December of 2009. The data collected includes age, cause of death and marital status.

Results

A total of 321 unnatural female deaths has been registered in the Government Hospital from January- December, 2009. Out of the 321 cases registered, 87.2% cases were rural and 12.8% cases were urban. The number of death of married women (74.4%) precedes the number of deaths of unmarried women (25.6%). The major cause of unnatural deaths was burns which claimed about 40.1% lives followed by hanging with 23% and 19.3% are due to road traffic accidents. Final opinion to the causes of death being reserved was 6.5%. The rest of the cases are injury, snake bite, drowning, murder, and electrocution as recorded. The maximum deaths have occurred in the age group of 20-29 years and most cases (37.3%) in this age group were due to burns.

Conclusions

Unnatural death is one of the indicators of level of social and mental health status of the society. The present study reveals that rural cases are more common than urban cases, the married women deaths outnumbered the unmarried women unnatural death and the common cause is burn. Statistics shows the lack of awareness among the society on managing

the case of burns and the ignorance of the younger generation in issues like dowry, etc.

Key Words

Unnatural Female Deaths, Burns, Pondicherry

Does Birth Time Influence Your Ideal Study Period?

Anjana Vasudevan, Swarna Pradha, Mathangi K, Mathangi DC, Shyamala R

2nd year; MBBS; CHRI; Tamil Nadu
Contact Info: vasudevan_anjana@yahoo.in

Introduction

Diurnal preference is otherwise known as time preferred by a person to be active. This is often referred to as "Morningness/Eveningness" or "larks and owls" where morning people wake up 2hrs earlier than the normal and are most alert in the first part of the day, and evening people are most alert in the late evening hours and prefer to go to bed late, they also do their routine work 2hrs later than the normal. Does time of birth affect the diurnal preference? The aim of this study is to know how the time of birth influences the Diurnal preference of a person to the time of study.

Materials and Methods

The study population were undergraduate medical students between the age group 17 – 20 years of either sex (n=100). The subjects were explained the purpose of the study and after obtaining their consent they were administered the Morningness Eveningness Questionnaire (MEQ). MEQ is used to find out diurnal preference. Subject Data sheet was given to each of the participant to obtain their personal details like age, sex, time of birth, performance in examination, etc.

Results

The time of birth correlates with the preferred time of study which has an impact on academic performance. Diurnal preference was observed wherein students born in the morning showed eveningness and vice versa. The results obtained were consistent with previous studies which showed no correlation between MEQ and academic performance

Conclusions

The time of birth does influence the best time for study and the academic performance. Evaluation of other specific parameters like, melatonin, cortisol and others, would add more value to this study.

Key Words

Study Pattern, Diurnals, Time Of Birth

Vitiligo: Beyond the Clinical Frontiers

Anmol U. Naik, Vishalakshi Viswanath

Intern; MBBS; Rajiv Gandhi Medical College, Kalwa, Thane
Contact Info: anmolnaik@hotmail.com

Introduction

Vitiligo, an ancient scourge of mankind, has always been believed to adversely affect the psychosocial make-up of its victims apart from causing cosmetic impairment. Objective evidence of this impact remained elusive until recent studies made it conclusively evident. However, data regarding the



same are still insufficient in the Indian scenario, where majority of patients are still treated as outcasts. Hence this study attempted to answer two questions – How does vitiligo affect a patient's Quality of Life(QoL)? And does phototherapy ameliorate the psychosocial burden by achieving clinical improvement?

Materials and Methods

This single-observer, cross-sectional study was conducted in the Dermatology Out-Patient Department(OPD) at Chhatrapati Shivaji Maharaj Hospital, Thane. Relevant epidemiological parameters were recorded and the impact on QoL measured using the Dermatology Life Quality Index(DLQI). Sixty clinically diagnosed vitiligo cases willing to give informed consent constituted the study sample. Parametric and non-parametric variables, analyzed using Chi-square test and Student's t-test respectively, aimed to reveal the correlation between these parameters and DLQI scores.

Results

The Overall Mean DLQI Score(OMDS) obtained in this study was 7.87. There was a definite correlation between certain epidemiological parameters and DLQI aspects. Marital status, gender, type of vitiligo and treatment status influenced the patients' symptoms and feelings, daily activities, leisure, work/school, personal relationships and treatment. Among new cases, married females had significantly higher OMDS(12.25) compared to males(8.14) [p<0.05]. Patients with generalized vitiligo had significantly higher OMDS(7.92) compared to localized variety(5.22) [p<0.05], the significance being attributable exclusively to male patients. New cases had significantly higher OMDS(8.94) than those on phototherapy(6.95) [p<0.05]. At least eleven months of treatment were required to produce progressively significant decline in OMDS.

Conclusions

Vitiligo has a definite negative impact on patient's Quality of Life. Hence cost-effective intervention strategies need to be devised to tackle both clinical and psychosocial problems. Phototherapy is a promising treatment modality in this regard.

Key Words

Vitiligo, Quality of Life, Psychosocial Impact

A Study on Impact of ART, Clinical Profile and School Absenteeism among HIV-Infected Children

Anuj Mehta, Nirati Srivastava

Final year; MBBS; KIMS, HUBLI
Contact Info: anujmehta2814@gmail.com

Introduction

With better availability of HIV treatment, mortality rates have declined making pediatric HIV a chronic disease, resulting in number of complex medical, school related issues. Quality of life (QoL) indicators are also assuming greater importance.

Materials and Methods

A cross-sectional study was carried out on 48 HIV infected children, 0-15 years of age. A pre-planned and structured questionnaire was used to evaluate the patients. It included questions related to socio-demographic parameters; clinical manifestations and schooling. Standard WHO criteria were

used. Statistical analysis was performed using SPSS Statistics Software, version 17.0. Categorical data was compared using Chi-square test.

Results

Of 48 children, 44 were on ART. Though all showed improvement in CD4 % after initiation of ART, 3 had drug induced eruptions; 100% got perinatally infected, 68.8% children were severely immunocompromised (CD4<15%), 66.7% in WHO clinical stage 2, commonest infections were dermatological (21 cases), respiratory (18) and gastrointestinal (14), out of 5 TB cases 3 had TB meningitis, 1 patient had pneumocystis carinii infection, anemia was present in 66% cases, 70.83% were orphans. Significant correlation was found between clinical staging and school absences (P=0.005), co-curricular activities (P=0.0001), day to day activities (0.0001), loss of appetite (P=0.004).

Conclusions

Our study findings suggest that a lot of effort is needed in the field of PPTCT (prevention of parent to child transmission). HIV infection poses great threat not only on physical, but also on social and mental aspects of health. Therefore, along with medical facilities for diagnosing and treating complications like TB meningitis, proper rehabilitation of HIV infected children is equally essential.

Key Words

ART, Clinical Profile, School Absenteeism

Post Partum Depression Among Low Socioeconomic Status Women, in an Urban Tertiary Care Centre in Mumbai, India

Anurati Mehta, Bharat Shah

2nd Year; MBBS; K. J. Somaiya Medical College, Mumbai
Contact Info: anurati.mehta@gmail.com

Introduction

Postpartum Depression (PPD), also called Postnatal Depression, is a form of clinical depression which can affect women after childbirth. Postpartum depression occurs in women after they have carried a child, usually in the first few months. This disorder has a significant impact on women's health and functional status. It has multiple predisposing causes and risk factors, that vary with society and ethnic and cultural background. On a PubMed search, we could not find any studies in Mumbai or in the Maharashtra – Gujarat region relating to this condition.

Materials and Methods

The study design will be single-observer, hospital-based, cross-sectional type. We plan to use the Edinburg Post Natal Depression Scale to diagnose and rate depression in a sample population of women in a low socioeconomic group. We will also assess the risk factors using a questionnaire and correlate the same. The questionnaire will elicit data regarding demographic characteristics (age, religion, employment, and economic data). Obstetric history, including number of living children and information about previous abortions and miscarriages will also be recorded. The obstetric history will include information about the current pregnancy, including



type of delivery, prematurity of infant, infant gender, infant illness and hospital admission. The mother's personal habits and history of marital violence will also be included, as well as data regarding familial support. We propose a sample size of 50 individuals. Results will be analysed using appropriate statistical methods.

Results

52 women, 6 weeks post-partum, were administered the Edinburgh Post Natal Depression Scale as well as the questionnaire. Of these, 19.23% were diagnosed to have post-partum depression.

The following factors were associated with post-partum depression: LSCS, girl child delivered in the absence of living boys and a desire for a male child, low birth weight, maternal complications after delivery, child hospitalization immediately post partum and women who worked.

Conclusions

We have noted a rather high incidence of depression amongst women undergoing LSCS surgery. This has not been assessed in previous studies. Given the increasing number of LSCS procedures this may have a significant role in the future.

The overall incidence of PPD and the type of risk factors are similar to the ones noted in diverse socio economic strata in previous studies in India and abroad.

None of the subjects, their families or their doctors were aware of, sought out or addressed the important issue of PPD.

Our study has highlighted the importance of PPD as contributor to morbidity at a crucial time. This should serve as a wakeup call to patients and their health care providers.

Key Words

Postpartum Depression

Incidence of Depression in Persons Suffering from Diabetic Foot Complications- A Case Control Study.

Anusha.M, Chandrashekar, Ramesh

3rd year, MBBS, BMCRI, Bangalore
Contact Info: vardhini37@gmail.com

Introduction

Aims: To study incidence and severity of depression in persons suffering from diabetic foot.

To compare diabetic foot status in persons diagnosed with depression and those without depression.

Depression can impact success of Diabetic Foot treatment and health of the patient itself. Patients with depression show poor metabolic control, self care and adherence to treatment. Identification of depression and its management in people with diabetic foot may have better outcome

Materials and Methods

It is a case control study that comprises of 30 cases, 30 controls. Cases-persons diagnosed with Diabetic foot. Diabetic persons without diabetic foot ulcer, age and sex matched with case group were chosen as controls. Persons suffering from psychiatric illnesses and any major co-morbid medical conditions were excluded. Socio demographic data was collected using semi structured proforma. Diagnosis of depression was made on basis of PRIME MD (Primary Care Evaluation Of Mental Disorders) using DSM IV criteria. Hamilton Psychiatric Rating Scale For Depression (HAM-D-17) was used to

rate the severity of depression.

Ulcers were graded according to the University Of Texas System of grading of ulcers. Data collected was compared, tabulated and analyzed statistically using The Statistical Software SPSS-16.0.

Results

Incidence of depression among cases-43.3%, among controls-23.3%

23.3%- moderate, 10%- mild, 10%- severe depression.

Mean HAM-D score among cases- 20.08+/- 5.6, that of controls-14+/- 3.9.

Depressed cases have higher wound grades.

Conclusions

Incidence and severity of depression is higher (43.3%) among the case group. Depression was associated with greater age, high blood glucose levels, longer duration of diabetes, treatment with insulin, smoking, alcoholism suggesting poor metabolic control.

The diabetic foot complications correlate with severity of depression.

This project helps us in identifying potential targets and adopt psychotherapeutic programs to alleviate depressive symptoms along with routine line of management. This may lead to better prognosis and health of the patient.

Key Words

Depression, PRIME-MD diagnostic tool, UT grading of ulcers

Prevalence of Colour Vision Defects in School Children of Hubli- Dharwad District

Apoorva. A. G.

Intern, MBBS, SDMCMSH, Dharwad
Contact Info: apoorva.ag@gmail.com

Introduction

Screening for the detection of colour vision defects in school children is vital. Aims of the study were to identify children with colour vision defects.

Materials and Methods

Purposive sampling was done to choose the school children. Their ability to name the fundamental spectral colours and Ishihara's pseudoisochromatic charts recorded. Inclusion criteria – children aged between 8 and 12 years. 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 the Ishihara's plates was used for diagnosis.

Results

Prevalence of colour vision defects in boys- 2.6%, girls- 0.4%; Protanopia in 0.2% boys, none in girls; Deuteranopia in 0.2% boys, none in girls; Protanomaly in 0.4% boys, none in girls; Deuteranomaly in 1.6% boys, 0.2% in girls. Total colour blindness in 0.2% boys and 0.2% girls. Age of detection of colour blindness, Overall prevalence of colour vision defects- 3.5% detected at 8 years, 1.5% at 9 years, 1% at 10 years and 1.5% at 12 years of age. Protanopia detected in 0.5% at 9 years,



0.5% at 10 years of age. Protanomaly detected in 1% at 8 years of age. Deuteranopia detected in 0.5% at 9 years of age. Deuteranomaly detected in 2 % at 8 years, 0.5% at 9 years, 0.5% at 10 years and 1.5 % at 12 years of age. Total colour blindness detected in 0.5% at 8 years of age.

Conclusions

Colour vision defects are commoner in boys than in girls, early detection by mass screening is advised using Ishihara charts.

Key Words

Colour Vision Defects, School Children, Ishihara Charts

Efficacy of De Ritis Ratio in the Diagnosis of Liver Diseases

Arthi .M, A.R.Srinivasan, Mohamed Hanifah.

3rd Year;MBBS;MGMC&RI, Puducherry
Contact Info: arti_chubby@yahoo.com

Introduction

Aspartate aminotransferase (AST) and Alanine aminotransferase (ALT) are intracellular enzymes which leak out into the extracellular fluid during cell injury. Their estimation is an indicator of cell damage. The AST/ALT ratio is known as De Ritis Ratio (DRR). It has been implicated in the past to differentiate liver diseases. Not many reports are available pertaining to the south Indian population. Puducherry assumes special relevance as it has a high percentage of alcoholics. The objective is to compute the numerical value of DRR in Viral Hepatitis (VH), Alcoholic Liver Disease (ALD) and Non Viral Hepatitis (NVH), to find out the efficacy and check any ambiguity in its use in the differential diagnosis of liver diseases.

Materials and Methods

This study included 110 patients aged 25 to 40 with abnormal liver function tests. They were classified into 3 groups, VH (n=40), ALD (n=40) and NVH (n=30). Appropriate exclusion criteria were undertaken. Liver Function Tests and serological test to confirm VH were done. As ALT levels are maximally elevated in viral hepatitis (based on previous literature) De Ritis ratio was compared as follows: VH vs. ALD, VH vs. NVH, ALD vs. NVH. The Statistical analysis was done using One Way Analysis of variance.

Results

The De Ritis ratio was lesser than 1 in viral hepatitis, greater than 1 and lesser than 2 in non viral hepatitis and greater than 2 in ALD, which was quite significant as compared to other 2 groups, besides confirming the efficacy of the ratio in rendering the differential diagnosis.

Conclusions

De Ritis Ratio can be used as an effective biochemical indicator in differentiating liver diseases especially ALD from Viral and Non viral hepatitis. It can also be employed as a simple, reliable and unambiguous biochemical test in diagnosing ALD and in aiding the differential diagnosis.

Key Words

De Ritis Ratio, Alcoholic Liver Disease, Hepatitis

Hepatitis B Vaccine : Coverage and Factors Relating to its Acceptance Among Health Care Workers of a Tertiary Care Centre

Arunpreet Singh Kahlon, Rambha Pathak, Deepak Pathania, SK Ahluwalia

4th year; MBBS; MMIMSR, Mullana, Ambala
Contact Info: Sandy_presto@yahoo.co.in

Introduction

Hepatitis B is an important infectious, occupational hazard for healthcare workers (HCW) exposed to human blood. A safe and effective vaccine is available against it. This study was planned to evaluate coverage of hepatitis B vaccine and the relative importance of occupational, epidemiologic and attitudinal factors in its acceptance among HCWs

Materials and Methods

It was conducted in January 2010 among HCWs –junior doctors, staff nurses and laboratory technicians of a tertiary care centre. A cross-sectional study design was adopted. Study participants were chosen by probability proportionate to size (PPS) sampling method. A self designed, semistructured interview schedule was used to collect data from the participant. All study variables were described by percentage. Univariate and multivariate analysis were also done.

Results

Out of 600 HCWs , 120(20%) were completely immunized, while 180(30%) received one or two doses of vaccine. Most common reason cited for not taking the recommended number of dosage was lack of knowledge about the protective efficacy of the vaccine. Perception of vaccine safety was identified as the most important predictor for acceptance and willingness to recommend HBV vaccination to other HCWs. It was related strongly to social influence and knowledge of disease and vaccine whereas refusal was primarily related to concerns about vaccine side effects and problems of vaccine access. Multiple logistic regression analysis indicated three variables significantly related to acceptance of HBV vaccination: history of accidental exposure to blood, blood products, acceptable knowledge about HBV infection and availability of vaccine.

Conclusions

Effective intervention programmes designed to increase knowledge about HBV infection, occupational risk and HBV vaccine are needed. Hepatitis vaccination should be made mandatory for all HCWs to protect them and their patients against hazards of infection.

Key Words

Vaccine Acceptance, Hepatitis B, Prevention



Prevalence, Patterns and Factors Associated with Headache among Adolescents

Ashutosh Kumar Verma, Shiwane Gupta, Akshay Naik, Gaurav Mittal, Sumi Nigam, Raina Garg

2nd year; MBBS; KMC; Mangalore
Contact Info: ashutosh.kneuro@gmail.com

Introduction

Headache disorders are a major concern among adolescents, but this issue has not been given attention in the recent past. The aim of our study is to determine the pattern and proportion of headache among adolescents. We will also try to find out the proportion of adolescents suffering from headache and major factors associated with it.

Materials and Methods

This cross sectional study was conducted in St. Aloysius Pre University College, Mangalore, Karnataka. The survey was conducted in one batch of each stream of first year PU according to the availability of free lectures. Total 312 students were given a questionnaire in their classrooms in the presence of at least one of the authors, who assisted them in filling it. The response rate received was 99%. Collected data was entered manually into Excel worksheet and analysed using SPSS version 11.5. χ^2 test was used for comparison. $p < 0.05$ was considered statistically significant.

Results

Out of 312 students, 253 (81%) suffered from headache and out of those 253 students, 67.24% complained of bilateral headache. Majority of students complained mild to moderate kind of headache. The age of onset of headache was found to be in between 11 to 15 years in majority of cases. Only few students (70) took medicine for headache. Out of those whose father were professionals, 34% suffered from headache, while 18% of those whose father were semi-professional and 22% of those whose fathers were businessmen suffered from headache disorders.

Conclusions

Majority of students have suffered from headache disorders and among them girls are more than boys. Academic stress is a major cause of headache. Headache was distributed on both side in majority of students. We came across several factors that posed as limitations to our study like incomplete data, time constraints and results could also not be generalized.

Key Words

Headache, Adolescent, Prevalence

Prevalence and Patterns of Palpebral Angle In Schizophrenic Patients And Healthy Controls

Ashwene R.

4th year; MBBS; PMC, Erode
Contact Info: ashwene@gmail.com

Introduction

"Eye is the index of mind" is no longer just a verbatim. Number of eye changes has been observed in mental retardation,

hyperkinetic disorders, and behavioral disorders and more importantly in schizophrenia. Such dysmorphic changes found in the eye along with changes in ear, head, mouth and limbs are described as Minor Physical Anomalies. These MPAs are measured using well known scales such as Waldrop, modified Waldrop, Lane Dane and few others for the purpose of research. This study's purpose is to add another element called palpebral fissure angle slant of the eye. Though we are aware of this minor physical anomaly in pediatric syndrome diagnosis this not been included in any of the above scales.

Materials and Methods

Palpebral angle (between the line joining the canthus and Frankfurt line) was measured manually and using angle-meter. A case control study was conducted in Psychiatric department of Perundurai Medical College with an n=68 (case=33 and control = 35). The cases consisted of patients who satisfied structured clinical interview for criteria of DSM -IV-TR and again the psychopathology was confirmed using BPRS scale. The controls are healthy people from students, patient visitors, samples from general population. Exclusion Criteria: Schizophrenic spectrum disorder and other psychotic illness including substance-use were excluded in Cases. For controls, any psychiatry morbidity was excluded. For both groups the palpebral fissure angle slant was measured and Chi square test was used to compare the data by using Statistica version 8.

Results

A statistically significant difference in palpebral fissure slant was found in the schizophrenic patients compared to healthy controls.

Conclusions

Palpebral slant is a highly specific minor physical anomaly that has been found in schizophrenic patients. Being an easily observed anomaly, palpebral angle slant must be included as significant minor physical anomaly to be screened in schizophrenic patients.

Key Words

Schizophrenia; Palpebral Angle

Retrospective Study of 37 Patients with Intracranial Anterior Circulation Aneurysms Treated with Endovascular Treatment.

Ashwini Arun Paranjpe, Uday Limaye

3rd year; MBBS; GSMC; Mumbai
Contact Info: ash5wave@yahoo.co.in

Introduction

Aneurysm is a localized abnormal dilation of a blood vessel caused by weakening of the vessel wall. Saccular aneurysms are found in about 2% of Post-mortem examinations. Most of the patients with subarachnoid haemorrhage caused by aneurysm rupture have 'sudden deaths'. With endovascular treatment taking roots in India over the last decade, management of intracranial aneurysms has witnessed a revolution. Through this study, we aim to assess the outcome of patients with intracranial aneurysms treated endovascularly from 1st January to 31st December 2008. This will help us in choosing the appropriate method for treating intracranial aneurysms and in understanding the current endovascular treatment outcomes.



Materials and Methods

This is a retrospective observational study. 37 patients presented with anterior circulation aneurysms. Endovascular coiling was performed using multiple detachable platinum coils with or without the use of adjunct neck remodelling devices. Few were treated with stent grafts and high density Onyx. Treatment strategy was tailored for each individual patient. Patients were studied on the basis of various parameters at presentation and their post-procedural clinical and angiographic outcomes.

Results

37 patients presented with 41 anterior circulation aneurysms located predominantly at Middle Cerebral artery and Anterior Communicating artery. 39 aneurysms were coiled in year 2008. 27 were ruptured and 12 were unruptured. 24 patients were females while 13 were males. The average age was 45 years. 6 patients had complications, of which 4 had good outcome. Follow up period ranged from 1 to 16 months. On 6 months follow up in 31 patients, 28 had good clinical outcome with mRS ≤ 2 . Control MRA or DSA done showed stable occlusion in 27 patients, neck recanalization in 2.

Conclusions

In this study period, endovascular treatment for intracranial anterior circulation aneurysms has shown promising outcomes with acceptable risks and complications at our centre.

Key Words

Aneurysms, Endovascular Treatment

Profile of Unnatural Deaths in Puducherry in 2009

Balamurugan .N, Barathivelan, Manikandan .N, Sathishkumar .L

3rd Year; MBBS; Sri Lakshmi Narayana Institute of Medical Sciences; Puducherry

Contact Info: mr.moneyuslims@gmail.com

Introduction

Burden of unnatural death is increasing worldwide and in our country. Main objective of the study was to find out the magnitude and pattern of unnatural deaths in Puducherry and to ascertain the various causes of death.

Materials and Methods

This present retrospective study was carried out by gathering data from death records (January 09 – December 09) from Puducherry Government Hospital after obtaining prior permission and under oath of confidentiality. Statistical analysis was done by tests for sign difference in proportions.

Results

Total number of 1180 unnatural deaths were found in 2009. It was significantly higher in males. Male: female ratio was 2.7: 1. Maximum number of such deaths was seen in the age group of 20 – 39 (43.5%). Among the various causes RTA (27.28%) ranks the highest and snake bite (1.69%) the least. Comparing urban and rural proportions of deaths: R.T.A (18.3%; 30.34%), Burns (9.0%; 24.0%), snake bite (0%; 2.27%), electrocution (1.0%; 1.13%), were higher in rural areas while hanging (32.6%; 14.43%) is higher in urban areas. Among males RTA (30.6%) was the major cause of death and in females, burns (43%). Married men and women were more prone to hanging (71.9% & 28.1%)

respectively. Opinion of cause of death was reserved in 206 (37.96%) cases. Insecticides and Over-alcoholism (55.9% & 31.9%) contributes major part in poisoning deaths.

Conclusions

Measures to promote road safety and quality of roads need to be taken. Precautions while handling inflammable substance are a dire need. Psychological well being and steps to reduce stress of modern life is to be emphasised in large scale. Education and employment opportunities have to be implemented. Anti-snake venom has to be available at rural centres.

Key Words

Unnatural Death, Profile, Proportions Of Death

Retention of CPR Skills in Interns at Two Months After Training

Balasubramanian Anusha, V.R.Hemanth Kumar

3rd Year; MBBS; MGMC&RI, Puducherry
Contact Info: anusha14scorpio@yahoo.co.uk

Introduction

The objective of this study is to evaluate retention of CPR skills among interns at 2 months after training and the need for reeducation for better performance of skills.

Materials and Methods

The study involved 30 interns who underwent CPR training using mannequin. None of the interns had prior proper CPR training. During initial education classes, all 30 interns were educated according to 2005 AHA guidelines for CPR until they achieved 100% performance. Two months later, all interns were tested for CPR skills. The parameters that were subjected to assessment were: safe approach, call for help from surroundings, opening of the airway, breathing check, pulse check, adequacy of inspired volume in mouth to mouth ventilation, adequacy of chest compressions 100/min acceptable with proper hand positioning and compression ventilation ratio (30:2), sequence and potentially injurious performances.

Results

There was statistically significant deterioration in the parameters like safe approach, response check, open the airway, check breathing, adequate ventilation volume, adequate chest compression and sequence at 2 months. Safe approach, call for help, check breathing, CV ratio and sequence were better performed by female interns. Other parameters were better performed by male interns. Overall difference in performance between males and females is not more.

Conclusions

In light of our findings, we conclude that as CPR skills have deteriorated by 2 months itself, a short and inexpensive retraining of skills is essential at two months after initial education.

Key Words

CPR, CV Ratio, AHA



A Study of Prevalence of Obesity and the Autonomic Functions in Obese and Non-Obese Students

Bhagyashri Umakant Bhende

2nd Year, MBB, Padmashree Dr.D.Y.Patil Medical College, Pimpri, Pune

Contact Info: bhagyashribhende@gmail.com

Introduction

Obesity has reached epidemic proportions globally and is a major contributor to the global burden of chronic diseases affecting all age groups and socioeconomic strata. Indians as a race are characteristically more insulin resistant and express insulin resistance syndrome (IRS) in an exaggerated manner. The purpose of the present study was to evaluate the prevalence of obesity and autonomic functions in obese and non-obese students.

Materials and Methods

The study was carried out in 30 students who were obese (BMI >25 & WHR>0.9) and the control group consisted of 30 healthy students (BMI <25 & WHR<0.9). To evaluate the autonomic functions, Valsalva ratio & Heart rate responses to deep breathing were performed on both groups. Further, a biochemical blood parameter (lipid profile) was also studied.

Results

Total cholesterol levels were found to be statistically significant in obese and non-obese individuals (147.3mg/dl & 128.8mg/dl;p=0.0156). Total triglyceride levels (102.4mg/dl & 84.6mg/dl; p=0.0175 were also statistically significant. The HDL levels (54mg/dl & 54.9mg/dl; p=0.6042) and LDL levels (81mg/dl & 71mg/dl; p=0.0744) were however statistically insignificant. Valsalva ratio (1.38 & 1.41; p=0.2855) and the Deep Breath Test results (28.9 & 29.5. p=0.7049) respectively were observed to be statistically insignificant indicating no parasympathetic dysfunction. Diastolic BP values (74mm of Hg; 70mm of Hg; p=0.00602) and heart rate(81.5beats/min; 71.2beats/min; p0.0001) were statistically significant indicating activation of sympathetic system & possibly Renin-Angiotensin-Aldosterone system (RAAS).

Conclusions

This study thus suggested presence of artherogenic risk factors & autonomic dysfunction as seen by an increase in sympathetic activity in obese students.

Key Words

Obesity, Autonomic Dysfunction

Occupational Hazards in Pesticide Sprayers-A Spirometric Analysis.

Bhavya Bayana,

Housesurgeon; MBBS; Kamineni Institute of Medical Sciences, Nalgonda, Andhra Pradesh

Contact Info: bhavya_yuva@yahoo.com

Introduction

Agriculture, the major consumer of pesticides is a high risk group for pesticide poisoning which is further aggravated by

lack of training in their use, poor legislative control and lack of appropriate preventive measures during spraying. So accidental poisoning can be anticipated. This study aims to know if there is any lung damage due to occupation-related pesticide poisoning and if there is any damage, to know of its prevalence, extent of obstructive, restrictive and mixed defects, and its relation to the duration, dose and type of pesticide used.

Materials and Methods

45 pesticide sprayers and 5 controls belonging to the same sex and socioeconomic stratum of same population were selected and a detailed history was taken and all these subjects underwent spirometric testing for Forced Expiratory Volume in one second(FEV 1.0) and Forced Vital Capacity(FVC). It is a community based crosssectional study with clinical correlation, conducted in Nalgonda district in Andhra Pradesh.

Results

28 out of 45(62.23%) and 1 out of 5 controls(20%) had positive spirometric findings. Majority (92.86%) had mild lung lesions, 7.14% had moderate lung lesions. 82.14% of the lesions were obstructive, 14.29% mixed and 3.57% had restrictive lesions. 8 out of 16 smokers had lesions(50%) and out of 29 non smokers 20 had lesions(68.87%). 63.15% class 1b pesticide users had lung lesions while 55.88% of class2 pesticide had lung lesions.

Conclusions

Pesticide spraying is associated with harmful effects; both pulmonary 31.11% and non pulmonary 35.56%. Spirometric abnormalities and symptoms have direct relation to the type of pesticide used,duration of usage,smoking,precautions taken. Spirometric abnormalities were noticed in 35.56% with pesticide being the only etiological factor. By knowing the exact extent of this problem, appropriate measures can be implemented thereby preventing much damage from happening.

Key Words

Pesticide,Spirometry,Lung Lesions

Circadian Variation In Onset Of Myocardial Infarction In Diabetics (NIDDM) And Non-Diabetics

Bismaya Sahoo, Priyadarshini Mishra

3rd Year, MBBS; LTMMC, Mumbai

Contact Info: bismay.ltmc@gmail.com

Introduction

A number of retrospective and prospective studies have demonstrated a peak in the onset of Myocardial Infarction in the morning hours and a trough at night. Diabetes is associated with an abnormal circadian pattern of several physiologic processes. This study was undertaken to determine whether diabetes affects the circadian pattern of onset of MI.

Materials and Methods

The study was conducted at LTMMC & General Hospital, Sion, between 1st July and 30th August under I.C.M.R. 50 randomly selected non-diabetics and 50 randomly selected diabetics admitted for MI to the General Medicine wards and Cardiac ICU of the hospital between the study period were identified using admission logs and patient charts. Patients were interviewed using a structured questionnaire. Patient reported time of beginning of discomfort was used as onset time of



beginning of MI. For further analysis, the day was divided into 4, 6hour intervals 00.00 to 5.59, 6.00 to 11.59, 12.00 to 17.59, 18.00 to 11.59. Percentage of total subjects in each time group was calculated for both non-diabetics and diabetics, to compare the time of onset of MI. Difference in the circadian variation and effect of duration of diabetes was compared using Chi-Square Test.

Results

In the study, we observed a prominent circadian pattern of acute MI symptom onset in patients without a history of diabetes as compared to those with diabetes. Also those patients who had a history of diabetes for >5 years, had a significant attenuation of the morning peak in acute myocardial infarction.

Conclusions

Presence of autonomic neuropathy in long term diabetics may account for the loss of circadian pattern of MI onset. These findings can be utilised in clinical practice to modulate the dose of anti-anginal drugs. Study limitation was that, the absence of diabetes was taken from clinical history and patient records which may have resulted in misclassification of diabetes.

Key Words

Myocardial Infarction, Angina, Circadian Pattern

Suicidal Hanging in Puducherry-A Retrospective Study

Bouvanesvary,G, Kumari.P, Kalpana Devi, Olirnila

3rd Year, MBB; Sri Lakshmi Narayana Institute of Medical Sciences, Puducherry
Contact Info: mechwit@gmail.com

Introduction

Suicidal hanging is the most common cause of suicidal deaths in Puducherry. The study is aimed at finding out the magnitude of suicidal hanging deaths in Puducherry and analysing the various factors which bear influence upon the event. Further incidence of suicidal hangings can be reduced if the target groups can be identified early and appropriate measures taken.

Materials and Methods

A retrospective study was made from police records. Out of 19 police jurisdiction areas, 10 were randomly selected by lots method. All the cases registered in the inquest records from 01.01.09 to 31.12.09 were studied for these 10 stations and analysed by statistical tests for significance of difference in proportions.

Results

Out of the total 142 suicidal hanging deaths, the proportion of males (74.64%) was significantly higher ($p < 0.01$). 59.15% of deaths were from urban area and 40.84% were from rural area. Marriage in both males and females was associated with a significantly higher chance of suicidal hanging ($p < 0.01$). The % of suicidal hangings in adolescents (13-18years) is 4.22, young adults (19-30 years) is 40.14, middle aged adults (31-44 years) is 20.42, upper aged adults (45-59 years) is 28.87 and geriatric population is 6.33. Pre-existing illness was found in 34.04% of males and females 45.8% of females. Employment doesn't seem to confer immunity from suicidal hanging.

Conclusions

This study shows that suicidal hanging is prevalent among married employed young males (19-30 years). Health professionals during their training process, can be made aware of the target groups and the corresponding counseling units for individuals and families, can be set up to take care of the psychological issues. Public awareness programmes through media highlighting the issues and possible solutions can be carried out. Toll free telephone lines available 24/7 for counseling can be instituted.

Key Words

Suicidal Hanging, Awareness

Layered Voice Analysis Based Determination of Personality Traits

Brinda Manchireddy, Sumaiyah Sadaf, Joseph Kamalesh

3rd Year, MBBS; MMC, Khammam
Contact Info: bmanchireddy@yahoo.com

Introduction

Voice opens a door through which emotions fleetly escape analogous to actions manifesting one's personality traits. Voice analysis is the study of speech sounds for purposes other than linguistic content, such as in speech recognition. Layered voice analysis identifies various types of stress levels, cognitive processes, and emotional reactions that are reflected in different properties of the voice. LVA uses a unique mathematical process to detect different types of patterns and abnormalities in the speech flow and classify them in terms of stress, excitement, confusion and other relevant emotional states. Thus the research question:- 'do the outpouring of emotions through one's voice reflect on their personality traits?'

Materials and Methods

This was a descriptive study conducted among medical students in the age group of 17 to 23 years. All students were administered the 16PF assessment questionnaire which has been internationally accepted as a standard for assessment of psychological traits. The voice samples of the students were recorded in a soundproof room using appropriate recording equipment. The voice samples thus obtained were analysed by the LVAi™ software supplied by Nemesysco Voice analysis technologies, Natania, Israel. The data generated by the software was analysed by SPSS software version 17.

Results

Various traits like affectogthmia, surgency, harria, threctia, praxernia etc were determined based on the 16PF. The emotional factors generated by the LVAi software were content, upset, angry, stressed, excited, concentrated, hesitation and emotion-cognition ratio. There was a strong correlation between the emotion-cognition ratio and the ego strength ($p = 0.032$). Students who are generally more upset tend to have a higher level of affectogthmia. There were also various relationships between personality traits and emotions which have been statistically significant.

Conclusions

A significant correlation was seen between the emotional factors and certain personality traits. Thus the emotions displayed through voice can be used as a tool to determine personality.



Key Words

Layered Voice Analysis

Infections by Community Acquired-Methicillin Resistant Staphylococcus aureus in District Hospital, Mangalore

Chetan Mandelia, Dr. Shalini Shenoy Mulki

3rd Year, MBBS; KMC, Mangalore
Contact Info: chetanmandelia@gmail.com

Introduction

Methicillin-Resistant Staphylococcus aureus (MRSA) is well recognized as a major cause of nosocomial infections worldwide. Infections due to MRSA have become increasingly common among healthy members of the community with no other known risk factors for acquiring HA-MRSA infection. They are termed CA-MRSA and differ significantly from HA-MRSA in their virulence and epidemiological properties. In this study, we examined the infections caused by CA-MRSA and their antibiotic sensitivity pattern.

Materials and Methods

The study included 60 subjects who were diagnosed with MRSA infection after testing in the Microbiology laboratory and who fulfilled the inclusion & exclusion criteria for CA-MRSA. Antibiotic sensitivity pattern of these MRSA was studied using modified Kirby-Bauers disc diffusion method. Antibiotics used were Amoxyclav, Gentamicin, Netilmycin, Erythromycin, Trimethoprim+Sulfamethoxazole, Ciprofloxacin, Clindamycin, Linezolid and Vancomycin. Analysis was done using SPSS Version 11.5 and association was found by using chi square test.

Results

CA-MRSA was found to be mostly responsible for causing Skin and Soft Tissue Infections (SSTIs) and these strains were susceptible to many classes of antibiotics, but high degree of susceptibility was shown to Vancomycin (96.7%), Clindamycin (93.3%) and Linezolid (96.7%). Moderate susceptibility was shown to Gentamicin (75%) and Netilmycin (90%). The susceptibility to Ciprofloxacin was 18.3% and Cotrimoxazole was 31.7% , indicating the emergence of resistance to these valuable antibiotics. All the strains resistant to Vancomycin (VRSA) were susceptible to Linezolid and Clindamycin, which justifies the use of Linezolid as a 'Reserve Drug' for Vancomycin resistant cases.

Conclusions

A high proportion of resistance was found among CA-MRSA isolates. Susceptibility to Gentamicin, Ciprofloxacin and Cotrimoxazole was much lower than what was previously reported. This suggests that the face of CA-MRSA has changed in both epidemiological and microbiological features and calls for the formulation of specific treatment guidelines to prevent emergence of resistance to currently used drugs.

Key Words

CA-MRSA, Infections, Antibiotic-Sensitivity

Effect of Number of Microscopic Fields and Sputum Samples Examined on the Diagnosis of Pulmonary Tuberculosis in HIV-Positive And Negative Patients

Chin Ju Juen, Gopalkrishna Bhat K

4th year, MBB; KMC, Mangalore
Contact Info: jwen_chin@yahoo.com

Introduction

Microscopic examination of sputum samples for acid-fast bacilli (AFB) is a standard method for the diagnosis of pulmonary tuberculosis (TB). Number of sputum samples examined and number of microscopic fields examined may influence the result. The objectives of the present study are to investigate the effect of number of sputum samples examined and number of microscopic fields examined on the diagnosis of pulmonary TB in HIV-positive and negative patients.

Materials and Methods

A total of 156 and 90 sputum samples collected from HIV-negative and HIV-positive patients respectively were used. The smears were stained by Ziehl-Neelsen's method and observed using RNTCP guidelines (observation of 100 fields) and CDC guidelines (observation of 300 fields).

Results

Out of 156 sputum samples of HIV-negative patients, 14 and 23 were positive by RNTCP and CDC guidelines respectively. Out of 90 sputum samples collected from HIV-positive patients, 12 and 17 were positive by RNTCP and CDC guidelines respectively. Of 1254 patients studied, 179 cases were positive. Both morning and spot samples were positive in 151 cases, morning sample only was positive in 21 cases and spot sample only was positive in 7 cases.

Conclusions

Examination of 100 fields per smear and two sputum samples (morning and spot) are adequate to diagnose pulmonary TB in both HIV-positive and HIV-negative patients.

Key Words

Tuberculosis, HIV, Smear

Comparison of Central Corneal Thickness in Diabetic Patients and Normal Population

Chinmay Devang Sanghavi

3rd Year Part-2, MBBS; Rajiv Gandhi Medical College, Kalwa, Thane
Contact Info: chinmayds@gmail.com

Introduction

Central Corneal Thickness (CCT) is a new parameter to evaluate Primary Open Angle Glaucoma. Cornea is thinner in normotensive glaucoma and eyes with thicker corneas are less vulnerable to rise in Intra Ocular Pressure. As incidence of glaucoma in diabetics is higher than in non-diabetics, evaluation of CCT is of paramount importance. Hence, the aim



of the study is to compare CCT in diabetic and non-diabetic patients and find out whether there is any significant difference between the two groups. This may lead to measurement of CCT as a screening test to pick up glaucomatous patients in diabetics at an early stage.

Materials and Methods

100 patients, between 30 to 70 years of age, with equal number of cases and controls were chosen. Diabetics of at least 1 year duration; Insulin dependent and Non-insulin dependent, of both sexes of the above mentioned age group, were chosen as cases and non-diabetics of both sexes of the same age group, as controls. CCT was measured using an ultrasound pachymeter. $p \leq 0.05$ was taken as statistically significant value. Percentage distributions, Z-test, Standard deviation, Standard error were used as statistical tests.

Results

Mean CCT of 523.03 microns was found. There was a statistical difference found between means of CCT in diabetic and non-diabetic males as $p=0.05$ (528.16 microns vs. 515.17 microns) but no significant difference was found between means of CCT in diabetic and non-diabetic females (517.89 microns vs. 525.30 microns, $p>0.05$)

Conclusions

The results of the study show that CCT of diabetics and non-diabetics did not show any significant difference. Although, a large population study with equal number of diabetics and non-diabetics should be carried out along with IOP, gender, various age groups and other relevant factors so that a definite correlation between CCT and diabetes can be found.

Key Words

CCT, Pachymeter, Diabetes

patient concordance and patient enablement, trust in physician was low at 60%. Socioeconomic factors did not show significant association with doctor-patient relationship. Gender was significantly and strongly associated with trust in the physician with female patients showing much lower trust in physician (50%) as compared to male patients (75%). Chi Square = 12.86, $p = 0.0003$, OR = 0.33, Cornfield's 95% confidence limits $0.17 < OR < 0.64$. Better concordance or agreement was strongly and significantly associated with improved trust in the doctor, which in turn was associated with improved patient enablement. Qualitative study revealed language and culture, alternative medicines, commercialization of medicine, and crowding at specialist and super specialist clinics as barriers to good doctor-patient relationships.

Conclusions

The study revealed that only about 60% patients had full trust in their physicians. This weak doctor patient relationship may adversely impact care of long term illnesses such as tuberculosis due to poor compliance.

Key Words

Doctor, Patient, Relationship

Measles Immunization Coverage in the Present Scenario

Deepak Balasubramanian, J.Kumutha

Intern, MBBS; Thoothukudi Government Medical College, Thoothukudi, Tamil Nadu

Contact Info: dsr3m@yahoo.co.in

A Study of Doctor-Patient Relationship

Debmitra Sanyal, Amitav Banerjee

4th year, MBBS; D Y Patil Medical College, Pune - 18
Contact Info: debmitra87@gmail.com

Introduction

Rapid pace of medical advances which focus on the physical rather than the social dimensions of disease is gradually eroding the traditional doctor patient relationship. Against this background the present study was undertaken with a view to study the socio-cultural dimensions of doctor patient relationship.

Materials and Methods

A cross-sectional study design with both quantitative and qualitative methods was carried out among 198 outdoor patients. Three dimensions of the doctor-patient relationship i.e., physician-patient concordance, trust in physician and patient enablement were assessed using validated tools. Focus group interviews using open ended interview format among few physicians was carried out as part of qualitative study. Data entry and statistical analysis were carried out on EPI Info software. Associations were explored using Chi square and odds ratio with Cornfields 95% confidence intervals.

Results

Though the patients studied reported almost 85% physician-

Introduction

In view of the deaths of four infants in Tamil Nadu, the Government has changed its immunization policy which is now institution based rather than outreach services so that better supervision could be effected. This study would help to assess the coverage under both these policies and to recommend changes.

Materials and Methods

An evaluation study was conducted in Teresapuram Urban Health Centre, Thoothukudi. Children born between October 2007 and March 2008 were included and those born between October 2006 and March 2007 were considered for comparison. The data was collected and Statistical analysis was performed by SPSS V.10 package. To test for significance, the Chi-square test was employed. $p < 0.05$ was considered for statistical significance.

Results

Among 174 children surveyed, immunization coverage was 58.62%. Among those not immunized, 59 children (58.33%) were not immunized against measles alone. Under the new policy, the coverage was 50% as compared to 65.71% under the old policy, but the difference was not statistically significant. Among the reasons for not immunizing the child, foremost was fear of side effects (44.89%) followed by presence of contraindication (32.65%), lack of proper information (12.24%) & migration (10.2%). Among those not immunized, 12 mothers confided that they would have given it if the program was outreach based. 62.5% of mothers were self-motivated while 37.5% mothers were motivated by health workers. 24 children (13.79%) had fever following immunization.



Conclusions

The coverage among those surveyed was 58.62%. The coverage under new policy was 50% as compared to 65.71% during the same period in the previous year. The survey may indirectly create awareness about immunizing children. It may determine the need for continuation or change of current policy. Larger studies are required to further analyze the impact of the policy and suggest changes.

Key Words

Measles Immunization, Coverage

Healthful Schools in Mangalore City: A Cross Sectional Study

Devi Dileep, Harsha Kumar, Anisha Manocha, Apurva

2nd Year, MBBS; KMC, Mangalore
Contact Info: dileepdevi@yahoo.com

Introduction

Children spend most of their day in schools. The health of the child is a reflection of the facilities available and hygienic practices in schools. Very few studies have been conducted in this regard and hence this study was undertaken. Objectives: To know the proportion of schools in Mangalore city which met the healthful school criteria as advocated by Indian Academy of Pediatricians (IAP).

Materials and Methods

This is a cross-sectional study examining the 10 healthful criteria as advocated by IAP. The sample size was calculated to be 42 based on the review of literature. From the list of primary and secondary schools obtained from the DDPI's office, simple random sampling was used twice to get equal number of Government and private schools. A semi-structured proforma was devised. The consent was sought from the heads of the institutions to see if the schools met the IAP criteria. The data was analyzed using SPSS version 10 and results were expressed in appropriate tables and statements.

Results

Out of the 42 schools, only 30 consented. This 30 included 5 Government and 25 private schools. 30% of schools allowed the use of physical punishments. All the schools had well illuminated and ventilated classrooms. 97% of schools had proper first aid facilities out of which only 10% had trained teachers in charge. 83.3% schools provided adequate toilet facilities out of which 96% had separate toilets for girls and boys. 86.6% of the schools provided hygienic drinking water. The results indicate that the school environment is not healthy and congenial for students.

Conclusions

Out of the 30 schools, none of the schools satisfied all 10 criteria. 10% schools satisfied 9 out of 10 criteria. Limitation: Many Government schools did not consent so the comparison between Government and Private schools could not be attempted.

Key Words

Cross-Sectional Study, Healthful Schools, IAP

A Study on Prevalence of Drug Defaulters and Evaluation of Safety Profile among Anti-Tubercular Drugs

Dheeraj Alexander,

4th Year, MBBS; FMMC, Mangalore
Contact Info: dheerajalexander@yahoo.co.in

Introduction

Tuberculosis is one of the common communicable diseases in human communities which can be completely cured with the current standard therapy. But the main obstacle to the success of the therapy being defaulting, has to be brought to nil. Efforts to improve treatment outcome thus require a better understanding of particular barriers to and facilitators of patient's adherence. So this study aims to assess the prevalence of drug defaulters and to evaluate the adverse drug reactions among anti-TB therapy.

Materials and Methods

TB cases were taken from Fr.Mullers Medical College, Mangalore and TB sanitorium, Moodushedde, Mangalore. History, examination and investigations were carried out at the end of 1st, 2nd and 3rd months of anti-TB therapy. The data was assessed and analysed for statistical significance by Chi-square test and Fishers test.

Results

Among 35 subjects, 5 patients defaulted. Important reasons for defaulting were adverse drug reactions and feeling better during therapy. 37% of the subjects developed atleast one adverse drug reaction and most common being skin rash, nausea and vomiting.

Conclusions

The current standard therapy for TB is very effective with only few minor side effects. Important reasons for defaulting were adverse drug reactions and feeling better during therapy. Defaulting being an important obstacle for the success of the therapy can thus be avoided by proper follow up of the patients during the therapy so as to combat the adverse drug reactions and thus improve the compliance of the patients.

Key Words

TB, Adverse Drug Reaction, Defaulters

Profile of Patients with Epilepsy in Tertiary Care Hospitals of KMC

Dilip Rajasekharan, Dr.Ganesh Kumar

3rd Year, MBBS; KMC, Mangalore
Contact Info: drdr58@yahoo.com

Introduction

Epilepsy describes a condition in which a person has recurrent seizures due to a chronic underlying process. There are a number of factors which are predictors of poor prognosis. Though epilepsy has been extensively studied in developed countries, there are not many reports of epilepsy from developing countries. The present study has been undertaken in two tertiary care hospitals to profile epilepsy in Mangalore and aims at profiling the risk factors, investigations, findings



and mode of treatment.

Materials and Methods

A retrospective study was done in UMC hospital and KMC hospital Attavar, Mangalore. The study includes patients who had suffered from epilepsy in the last 7 years. The records were analysed and recorded in a proforma. Based on availability of records 70 cases were taken. The data was entered in a computer from a master table and the data was tabulated and analysed with the help of SPSS version 11.5 and findings were presented in the form of appropriate tables and figures.

Results

A majority of the patients were males (61.4%), occurring mainly among students in the age group of 10-30 years. It was seen that localized seizures were more common (56.10%) and that 80% of patients presented with negative family history. The biochemical findings of about 60% patients were normal. 94.3% people underwent a medical mode of treatment (63.3% were treated with a single drug). It was also seen that most (91.3%) of patients were regular in their drug intake.

Conclusions

It was noticed that in Mangalore region, epilepsy was more common in males and in the age group 10-30 years. Localized seizures were more common. Biochemical findings of 60% were normal and most underwent a medical mode of treatment, that too with a single drug. Most of them were regular in their drug intake.

Key Words

Epilepsy, Factors, Treatment

Haemoglobin Count as an Indirect Marker for CD4 Count

Dimple Kriplani, Siddharth Yadav, Prasita Kshirsagar, Dinesh Samel

Intern; MBBS; KMC, Thane
Contact Info: dr.dimplekriplani@gmail.com

Introduction

Anaemia is the most common hematologic abnormality in HIV patients. Studies have shown higher incidence of severe anaemia in patients with CD4<200. Here we correlate the level of haemoglobin with CD4 count in HIV positive and ART naive patients. CD4 count which is used as a marker of immunological status of HIV patients should be monitored regularly. Through this study, we are trying to find out whether haemoglobin level can be used as a crude method to reflect the immunological status of the patient.

Materials and Methods

The study was conducted by reviewing the medical records of all patients seen in HIV OPD between January 2006 to December 2009. Patients included in study were those who were HIV1 positive, ART naive, above 13 years of age and CD4 count done. Anaemia was stratified into severe, moderate, mild and no anaemia which was correlated with CD4 count classified according to Centre for Disease Control Revised Classification system for HIV infection.

Results

Out of 209 patients studied, 122 were symptomatic while 87 were asymptomatic. In asymptomatic patients, a definite

relation was found between CD4 count and moderate (Haemoglobin: 8-10g/dl) to severe (Haemoglobin <8g/dl) anaemia. But there wasn't any relation with mild anaemia as it was prevalent in all the groups of CD4 count. This can be explained due to high prevalence of mild anaemia in Indian society even in healthy population.

Conclusions

Serial monitoring of haemoglobin count can be a crude indicator of falling CD4 count in asymptomatic patients. Monitoring of HIV patients is done with CD4 count and viral load which is expensive hence in a low resource setting haemoglobin estimation can be used instead. The conclusion could have been more reliable if it was a follow up study.

Key Words

CD4, Haemoglobin, HIV

A Cross-Sectional Study on Suicide Ideation among Medical Students of KMC, Mangalore

Dinesh.R.P, Animesh Jain, Alok Dubey, Abhishek Malviya, Swati Ravindran, Savan .K.N, Anusha G

2nd Year, MBBS; KMC, Mangalore
Contact Info: dineshrp2008@hotmail.com

Introduction

Suicide ideation is a neglected issue in our society. Information on suicidal ideation is lacking in India. Suicidal ideations are high among students from age group 16-24. It is estimated that 1 in 10 people with BPD, will successfully kill themselves. The present study was conducted to study the prevalence of suicide ideation and its associated risk factors among medical students in Kasturba Medical College, Mangalore, India.

Materials and Methods

A cross-sectional study was conducted on medical students by using a self administered questionnaire. Data was collected on 305 students from 2nd and 4th semesters on baseline characteristics, addictions, thought of suicide ideation, and thought of life as burden. The study was conducted in February 2010. The collected data was coded & entered into SPSS version 11.5 and statistical analysis was performed. Chi square test was used to determine the risk factors and their significance was reported at $p < 0.05$.

Results

Out of 305 students who filled questionnaire completely (response rate 87%), 119 (39%) were males and 186 (61%) were females, most were Indian (90.8%), and Malaysians were majority among non-Indians (4.9% out of total 9.2%). Around 8.3% (n=25) admitted alcohol consumption, 4.3% (n=13) were smokers, 3% (n=9) admitted to having done substance abuse, 11 (3%) have any two addictions, 172 (56.39%) are dissatisfied with studies ($p = 0.002$), 34 (55.7%) students who are broken up with their close friends ($p=0.009$), 20 (6.56%) felt neglected by the parents/family, 28 (9.2%, $p=0.001$) thought of life as burden, 61 (20%) had reported suicide ideation, 24 (7.9%) have given serious thought to committing suicide, 28 students (9.5%) consider their life as a burden.

Conclusions

Dissatisfaction in academics, neglect by the family, severe ragging, any two addictions and break up with close friends



have significant association with suicide ideation.

Key Words

Suicide Ideation, Students

Comparative Study Between the Ultrasonography and the Normal Clinical Examination in Leprosy Patients with Ulnar Nerve Involvement

Dipsha Kriplani,

*Final year, MBBS; JMMC, Sawangi, Wardha
Contact Info: djpkrip@yahoo.co.in*

Introduction

Leprosy, a chronic granulomatous infection by *Mycobacterium leprae*, involves skin and peripheral nerves. It most commonly involves the ulnar nerve. Clinical examination can only be supported by nerve biopsy, an invasive procedure. This study is done to track early symptoms, extent and site of nerve involvement & to evaluate the prognosis during treatment or likely progression of nerve damage in patients.

Materials and Methods

It is a cross-sectional study with a sample of 50 cases. Consent from individual patients regarding the tests had been taken and confidentiality assured. Ultrasonography of the ulnar nerve was done via Philips Enviser 15MHz linear probe on patients who consented for the test and have positive findings for leprosy on clinical examination. The data collected by general clinical examination and by ultrasonography was interpreted statistically and analysed.

Results

50 cases were studied where 44 patients (88% of cases) had no tenderness on general examination whereas on USG, maximum percentage of patients had ulnar nerve thickened upto of 2-2.9mm. 6% of the patients had significant thickening of 5 mm and above. Only 8% subjects showed nodularity on general examination whereas 13% of the patients had nodularity on ultrasonography. 3 patients with less than five patches had an ulnar nerve thickening of 5mm and above on ultrasonography. USG findings of two patients with ulnar nerve thickness in the range of 3-3.9mm and 4-4.9mm each and with no patches on general examination was valuable.

Conclusions

Clinical examination of enlarged nerves in leprosy patients is subjective and inaccurate, whereas sonography provides an objective measure of nerve damage by showing the exact thickness of the nerve, distorted echotexture and involvement of surrounding structures. Ultrasonography is proved to be a precious tool for assessing peripheral nerve lesions with respect to their exact location, course and continuity.

Key Words

Ultrasonography, Ulnar Nerve

Screening for Patients Colonised with MRSA And ESBLs Producers at Admission in ICUs of a Tertiary Care Hospital

Divya Swathi C.S, A.C.Baskaran

*3rd Year, MBBS; PSGIMS&R, Coimbatore
Contact Info: divyaswathi@rediffmail.com*

Introduction

Nosocomial infections / hospital acquired infection rates are the highest, in the ICU of any hospital. Patients colonized with drug resistant bacteria at hospital admission pose a significant risk as a reservoir, contributing to the increased susceptibility of infections to self and disseminating to other patients during hospitalization. The infection control team and the treating clinician need to be notified, for adequate precautions and appropriate antibiotic therapy. This study aims to determine the carriage rate of Methicillin resistant staphylococcus aureus (MRSA) and extended spectrum beta-lactamases (ESBLs) producers among ICU patients at admission, their antibiotic susceptibility pattern, and occurrence of infections during their hospitalization, with the same isolate.

Materials and Methods

After obtaining an IHEC's approval, around 100 ICU patients were included in the study. Nasal swabs, throat swabs, swabs from axilla, rectal swabs and urine samples were collected from patients during or within 24 hours of admission and processed by standard microbiological methods. MRSA was identified using Cefoxitin (30µg) disc according to CLSI guidelines. ESBLs producers were isolated using CIVA screening agar and confirmed by NCCLS phenotypic confirmatory tests. Antibiotic susceptibility testing was performed on all isolates by Kirby-Bauer's disc diffusion method.

Results

The MRSA and the ESBLs carriage rate at the time of admission was found to be 4% and 34% respectively. The MRSAs isolated showed highest susceptibility to Vancomycin(100%), Linezolid(100%)and Rifampicin (100%). The ESBLs producers showed highest susceptibility to Piperacillin/tazobactam (91.17%), Imipenem (88.23%) and Netilmicin (85.29%). Around 22.2% of patients, who developed nosocomial infections during the course of hospital stay, had similar ESBLs producers in their clinical samples.

Conclusions

Screening patients for drug resistant bacteria, at admission in the ICU's as an infection control measure should be prioritized and implemented to improve the quality of health care.

Key Words

Screening, MRSA, ESBLs



The Profile of Antibiotic Use in The Medical Intensive Care Unit (MICU)

Eesha Narendra Bhandari,

Intern, MBBS; Pad. Dr. D.Y. Patil Medical College
Contact Info: b_eesha@hotmail.com

Introduction

The treatment of critically ailing patients in the MICU requires varied antibiotic administrations. Due to the compulsion of the setting and an emergency situation, there is no scope for trial and error methods and a tendency to overuse antibiotics develops to accomplish a prompt clinical outcome. Are the present antibiotic prescribing patterns in the MICU apt? This study is aimed at identifying the profile of antibiotic prescription in the MICU.

Materials and Methods

A cross-sectional study was conducted among 30 patients of the 12 bed MICU of Pad. Dr. D.Y. Patil Hospital. A questionnaire was used to acquire the diagnosis, culture reports, antibiotics prescribed, justifications for selection, duration of use and follow up of the patients.

Results

The use of ceftriaxone was maximum (39.44%) followed by metronidazole (29.35%). Antibiotics were administered at the rate of 37.5% each for broad spectrum coverage and prophylactic use. Culture sensitivity and cyclically used prescriptions rated 12.5% each. Amikacin or Ciprofloxacin were used for gastrointestinal infections and Augmentin or Azithromycin were used for respiratory tract infections. Piperacillin and Tozamac were prescribed in sepsis. Prophylactically, Azithromycin, Ceftriaxone, Ampicillin and Amoxicillin-clav were used. Azithromycin was replaced by Augmentin to follow a cyclical prescription. 6.66% nosocomial infections occurred and were treated with Vancomycin+Ciprofloxacin+Ceftriaxone and Ceftazidime+Salbutam+Metronidazole+Ciprofloxacin. No adverse effects of the antibiotic administrations were reported.

Conclusions

Antibiotic prescription in the MICU of Dr. D.Y. Patil hospital is apt and equally and mostly based on broad spectrum and prophylactic basis. A small sample size and an institutional diversity in the pathogens and their antimicrobial susceptibilities have limited the study. The magnitude of inappropriate and indiscriminate antibiotic administration must be highlighted by further studies as it has increased hospital stays to cause economic loss; mortality rates and antibiotic resistant infections which may reverse the medical progress to the pre-antibiotic era.

Key Words

Profile, Antibiotics, MICU

Effect of Indigofera Aspalathoides (IA) on Expression of iNOS in Hamsters with DMBA Induced Buccal Pouch Squamous Cell Carcinoma

Farook Zackariya.K.A, Thirumaran, Philips, Sethupathy.

3rd year, MBBS; RMMC, Chidambaram
Contact Info: farook.zack@gmail.com

Introduction

Studies revealed that expression of iNOS have a role in tumor angiogenesis and in metastasis. Agents which prevent its over expression can be considered to have high pharmacological value in controlling cancer angiogenesis. So the present study has been designed to explore the influence of IA extract on expression of iNOS in hamster with DMBA induced buccal pouch squamous cell carcinoma.

Materials and Methods

Syrian golden hamsters were divided into four groups. The right buccal pouch of animals in group I & II were painted with 0.5% DMBA 3 times in a week for 14 weeks. Group II also received an oral dose of ethanol extract of IA (300 mg/kg body wt). Group III was treated with the extract alone. Group IV served as the control. Animals were sacrificed after 14 weeks. Tissue from buccal pouch were collected and processed for histopathological studies.

Results

The expression of iNOS were assessed by immunohistochemistry method. All the animals painted with DMBA alone developed buccal pouch cancer and the expression of iNOS was found to be high. Administration of EIA has shown to have decreased level of the expression of iNOS. That group (Group II) also did not develop tumour. So it could be presumed that decrease in iNOS expression would help in controlling angiogenesis and cancer.

Conclusions

It is concluded that ethanolic extract of IA has a beneficial effect on controlling angiogenesis through decreased expression of iNOS.

Key Words

Inos, Carcinoma, Hamsters, Indigofera aspalathoids.

Prevalence of GDM in High Risk Antenatal Mothers

G.Kiruthika, B.Devi

3rd Year, MBBS; PSG, Coimbatore
Contact Info: kirthiganesan.4@gmail.com

Introduction

Gestational diabetes mellitus is defined as carbohydrate intolerance of variable severity with onset or first recognition during pregnancy. Screening for GDM should be performed between 24 to 28 weeks in the women of Asian population by 50gm oral glucose challenge test followed by diagnostic 100gm oral glucose tolerance test. Women with positive GTT appear to have increased risk of perinatal morbidity. GDM mothers are prone to increased chances of instrumental vaginal/caesarean delivery and neonates born to them are prone for macrosomia,shoulder dystocia.

Materials and Methods

A prospective study to assess the prevalence of Gestational diabetes mellitus in high risk antenatal mothers was done using a 50gm glucose challenge test between 24 to 28 weeks of gestation, those with a cutoff value ≥ 130 mg/dl were given a



100gm oral load of glucose tolerance test to diagnose GDM using Carpenter & Coustan criteria.

Results

The prevalence of GDM in this study of high risk population was found to be 18%(36/200).

Conclusions

There were 36 GDM mothers in this study population of 200 making the prevalence of 18%. This shows increase in prevalence of GDM among the Asian population and these people are prone for increased instrumental vaginal/ caesarean delivery with increased perinatal and maternal morbidity.

Key Words

GDM, Maternal Morbidity

improve their quality of life.

Key Words

Bone Mineral Density (BMD), OASI, Osteoporosis

Osteoporosis Assessment Scale for Indians (OASI)

G.Rajiv, R.Lokesh, T.Anbuchelvan, C.Satish Babu, K.Latha, J.Thirunavukkarasu, C.B.Tharani

2nd year, MBBS; Saveetha Medical College Hospital, Chennai
Contact Info: g.rajiv2008@gmail.com

Introduction

Osteoporosis is a systemic skeletal disorder characterized by low bone mass. Osteoporosis is a major public health concern worldwide with high prevalence. The medical, social and psychological consequences can severely impact the health related quality of life. It is asymptomatic & continues to be an under recognized problem. Osteoporosis is assessed clinically by calculating BMD (Bone Mineral Density) using densitometer or DEXA scan, these methods are very expensive and their availability is poor, it cannot be afforded by everyone. In the background of these challenges, we decided to develop a scale for assessment of osteoporosis based on the risk factors involved.

Materials and Methods

Based on the data (demographic, personal history, systemic diseases) collected from 204 patients who attended the Osteoporosis camp, whose BMD assessed by densitometer held at Saveetha Medical College Hospital. The most common risk factors of subjects who had low BMD (155 of 204) was studied. Statistically the significance of each risk factor to BMD was assessed. These significant risk factors were included in the scale. The score for each risk factor was given according to its significance to bone mineral density.

Results

The scale determines BMD based on the eleven factors : BMI, age, history of non traumatic fractures, hyperthyroidism, diabetes type 2, alcoholism, smoking, hypertension, glucocorticoid use, calcium intake, postmenopausal status and hypogonadism, the total score obtained was compared with the densitometer determined bone status (normal, osteopenic, osteoporotic). Patients with score of > 15 were found to have osteoporosis, score between 11-15 were osteopenic, <10 were normal. Statistically confirmed using chi square test (p=0.05).

Conclusions

Easy, fast, simple, cost saving way to estimate BMD, requires no special tests, can be performed anywhere at any time with less skill. Helps in identification and treatment of patients which will

Determinants of Needle - Stick Injuries among Nurses in a Tertiary Care Hospital at Uttar Pradesh

Gaurav Agarwal, Dr V K Agrawal

IV Year, MBBS Student; Rohilkhand Medical College & Hospital, Bareilly, UP
Contact Info: gauag_2468@yahoo.co.in

Introduction

The health care workers who deal with patients, especially who are exposed to blood, body fluids and potentially contaminated instruments or wastes, are at high risk of contracting serious blood-borne infections like hepatitis B (HBV), hepatitis C (HCV) and HIV through occupational injuries during their professional activities.

Materials and Methods

This hospital- based retrospective study was conducted among the nurses involved in patient care in a tertiary care hospital located at Uttar Pradesh. One third of the nurses population were selected for the study. With the random start, every third subject from the list was selected by the systematic random sampling techniques. Thus a total of 230 nurses comprised the sample size.

Results

A hospital based retrospective study on 230 nurses involved in patient care showed that 86.0% of them sustained at least one needle stick injury in the last 12 months. The risk of such injuries per thousand nurses per year was found to be 2608. Out of the most recent injury among the 198 nurses, 80% remained unreported to the appropriate authorities, in 20% events, hand gloves were worn by the nurses only, 4.0% of those nurses received the hepatitis B vaccine, 1.50% hepatitis B immunoglobulin and none of them received post exposure prophylaxis for HIV.

Conclusions

Health care workers should be motivated by IEC activities to adhere to universal safety precautions to minimize needle stick injuries. Universal immunization with appropriate vaccine like Hepatitis B Vaccine should be given to them while admitting in nursing school. Post exposure prophylaxis for HIV as per national guidelines should be readily available to health care worker in case of needle stick injury.

Key Words

Needle Stick Injury, HealthCare Workers



Evaluation of the Risk Factors for Myopia with Special Reference to Close Visual Work, Dietary Intake of Carbohydrates and Family History

Gautham Chitragari

Final Year Part-II, MBBS; AMC, Visakhapatnam
Contact Info: gauthamraj_c@yahoo.co.in

Introduction

Earlier studies done to find out the risk factors for myopia were focused on a single risk factor at a time such as close visual work, genetics, dietary carbohydrates and parental education, but they gave conflicting results. The present study aimed to determine the role of all these four factors at a time on the occurrence and progression of myopia.

Materials and Methods

It is a cross-sectional study. 750 students of AMC and 100 students of Gitam were administered a questionnaire seeking information about their optical refractory status, family history of myopia, dietary habits, amount of close visual work, parental educational status and frequency of 'sms'ing on mobile. Daily carbohydrate intake was calculated using dietary history provided. Based on this, the subjects were divided into 2 groups, those with an intake of <500gms/day and >500gms/day. Hypermetropes and those who underwent ocular surgeries were excluded. Subjects were divided into myopes and non-myopes and the above risk factors were compared.

Results

49 questionnaires of the 750 were excluded because of incomplete data. Of the 701 analyzed, 414 were males and 287 were females. 446(63.62%) were myopes of whom 266(59.64%) were males. 94 myopes and 36 non-myopes(14.12%) had a parental history of myopia [p<0.05]. 69 myopes (15.86%) and 53 non-myopes (21.11%) consumed more than 500gms of carbohydrate diet [p=NS]. 125 myopes(28.09%) and 62 non-myopes(24.71%) did more than 3hrs close work a day. 334 myopes(74.89%) and 175 non-myopes(68.63%) had a graduate parent(p=NS). 113 out of 446 myopes were progressive. Frequency of increased carbohydrate intake, positive parental myopia, increased hours of close work and frequent 'sms'ing was similar in myopes and non-myopes. [15.55%, 16%; 20.7, 21.6%; 28.57%, 27.9%; 30.09%, 28.8% respectively].

Conclusions

Family history was found to be a positive risk factor for the development of myopia. There was no relation between close visual work, dietary carbohydrates, parental education or frequent 'sms'ing with myopia or its progression

Key Words

Myopia, Risk Factors

Body, Stem and Trunk Lengths as a Tool for Age Estimation

Hajra Ahmed, Joseph Kamallesh

3rd year, MBBS; Mamata Medical College, Khammam, AP
Contact Info: hajraahmed_1989@yahoo.com

Introduction

Age is one of the essential factors in establishing the identity of the person. Estimation of the human age is a procedure adopted by anthropologists, archaeologists and forensic scientists. There are numerous methods of estimating age in persons less than 25 years of age. However in cases of mass disasters when there is a great deal of dismemberment of the body, not many methods are available to estimate age from dimensions of the upper torso. In this study we aim to look at the relationship between the total body length, stem length and trunk length with age of persons below 25 years of age

Materials and Methods

The study was conducted among school children and college students in the age group of 6 to 25 years. A total of 260 students were included in the study (140 male and 120 female). All measurements were taken with standard anthropometric stadiometer. The stem length was measured as the distance between the hip at sitting position and the vertex. The trunk length was measured from the hip at sitting position till the sternal notch. All data was tabulated and analysed by SPSS program version 17.0

Results

There was a strong correlation of height with age with a correlation coefficient of 0.911 (p<0.01). The correlation coefficient for stem length and age was 0.859 (p<0.01) and that between trunk length and age was 0.836 (p<0.01). Based on these strong correlations, regression equations were derived for estimating the age of a person based on either the total height, stem length or trunk length. These equations were common for both sexes and is applicable between ages of 6 to 25.

Conclusions

A strong correlation between height, stem length and trunk length has been established and regression equations derived to calculate the age based on these measurements

Key Words

Stem Length, Trunk Length, Regression Equations

Adverse Drug Reaction Monitoring Through Active Surveillance of Anti-Tubercular Therapy in an Urban Tertiary Care Centre

Indrashis Podder

3rd Year, MBBS; Calcutta National Medical College, Kolkata-700014, West Bengal
Contact Info: indra88_podder@rediffmail.com

Introduction

Tuberculosis, is a major cause of death worldwide. The World Health Organisation (WHO) declared tuberculosis (TB) a global emergency in 1993. To intensify the efforts to control TB, the Government of India introduced the Directly Observed Short Course Therapy (DOTS) programme. Besides disease-related complications, there are serious adverse reactions due to Anti-tuberculosis (Anti-TB) drug therapy. The present study has been carried out to evaluate the safety of the DOTS therapy by monitoring the serious and preventable recognized adverse drug reactions (ADRs) of the Anti-tuberculosis (Anti-TB) drugs.



Materials and Methods

All the TB patients attending the Chest OPD, CNMCH from July 2009 to August 2009 were enrolled as per the study criteria and were monitored for ADRs using a descriptive longitudinal study pattern. The data were evaluated for patient demography, incidence of ADRs, and the types, onset, management and outcome of the ADRs. ADRs were also assessed for their severity as per the Hartwig et al scale.

Results

During the study period, 30 patients received Anti-TB drugs, a majority of them were males (60%) and belonged to the age group of 20-30 years (53.33%). Of them 19 developed at least one ADR. Total number of 33 ADRs was detected in this study. The most frequent system affected by ADRs was Gastrointestinal system (42.42%). Nausea and vomiting was observed in 7 (21.21%) patients. The severity assessment of ADRs showed that most reactions (81.82%) were mild or of level 1 severity as per the Hartwig et al scale.

Conclusions

Anti-TB drugs can cause significant adverse effects both in quantity and severity, but I found DOTS therapy to be safe inspite of some ADRs. However, regular monitoring is required for ADRs, so that certain percentage of ADRs can be prevented and thus make DOTS therapy more acceptable to the masses, to combat the menace of TB in the near future.

Key Words

DOTS, Tuberculosis, Adverse drug reactions(ADRs)

Hematological Changes in Malaria

Jason D'souza, Dr. Jayaprakash C. S.

4th Year, MBBS; Father Muller Medical College; Mangalore
Contact Info: jason4j@gmail.com

Introduction

Malaria causes significant mortality and morbidity in endemic countries. The present study is aimed to evaluate certain hematological changes in patients with P. vivax and P. falciparum malaria and correlating these variations to the type of malaria as these may help in the early diagnosis and treatment, which may decrease the mortality rates in malaria endemic areas.

Materials and Methods

60 vivax malaria and 60 falciparum malaria patients were studied using purposive sampling technique. The diagnosis and the type of malaria was confirmed by thick and thin blood smears. The counts for these hematological parameters were assessed by ABX Pentra XL 80 automated blood counter.

Results

On comparing the vivax malaria against the normal controls, highly significant levels of thrombocytopenia (p=0.000), increase in platelet volume (p=0.000), leucopenia (p=0.004), monocytosis (p=0.000), eosinopenia (p=0.000), basophilia (p=0.000) and atypical lymphocytosis (p=0.000) were observed, the changes in the other parameters remaining insignificant. However, while comparing falciparum malaria against the normal controls, highly significant levels of thrombocytopenia (p=0.000), increase in platelet volume (p=0.002), leucopenia (p=0.019), neutrophilia (p=0.000), lymphocytopenia (p=0.000),

monocytosis (p=0.000), eosinopenia (p=0.000), basophilia (p=0.000) and atypical lymphocytosis (p=0.000) were observed. When compared against each other, the increase in the RDW counts were more significant (p=0.030) in falciparum malaria as compared to vivax. Also a highly significant level of neutrophilia (p=0.003) and lymphocytopenia (p=0.000) was observed in falciparum malaria. However, the degree of eosinopenia was highly significant (p=0.001) in vivax as compared to the falciparum variant of the infection. The changes in other parameters being insignificant.

Conclusions

Both vivax and falciparum malaria can cause significant hemtological changes with a comparatively higher neutrophilia and lymphocytopenia in falciparum malaria and a higher eosinopenia in vivax malaria. These findings, if present in a case of acute febrile illness should be considered in the diagnosis of malaria and the type of malaria in an endemic area.

Key Words

Hematology, Falciparum, Vivax malaria

Prevalence of Dengue Infection among Fever Cases in a Tertiary Care Hospital

Jason Sam Paul. J, Lucy Nirmal Medona. M

3rd Year, MBBS; Thoothukudi Government Medical College, Thoothukudi.

Contact Info: dr.jason@gmail.com

Introduction

Pyrexia is the commonest presentation in outpatient department of any hospital. It may be due to infectious or non infectious cause. In case of dengue infection, early diagnosis, continuous monitoring and symptomatic treatment are very essential in the management. The aim of this study was to identify the prevalence of Dengue infection among fever cases attending Thoothukudi Medical College Hospital and to find the proportion of Dengue Hemorrhagic Fever to Classical Dengue. The present study gains its significance in our country due to increased reporting of Dengue cases, especially after post monsoon season.

Materials and Methods

A retrospective study was conducted in Thoothukudi Medical College Hospital among cases with fever for >5 days from March 2009 to Feb 2010 from the available records. Positive cases (Dengue IgM Antibody Capture ELISA Kit, NIV Pune) were identified from the Department of Microbiology and the platelet count for the above was retrieved from the Department of Biochemistry for clinical co-relation.

Results

Among the total 261 cases, 81 were Positive for Dengue Serology (31%) with the Male Predominance of 51% (p=0.0278). Age group 5-10 years showed a maximum of 32 Positive cases (p=0.001). Positive cases with Platelet count less than 1,00,000 were only 17 (21%), showing that 79% were Classical Dengue cases. Out of the 81 Dengue cases, 41% were Post Monsoon.

Conclusions

The Prevalence of Dengue Infection in fever cases attending TKMCH was 31%, with a male predominance and age group



between 5 to 10 years. Positive cases with Platelet count less than 1,00,000 was 21% showing that 79% were Classical Dengue cases. Death was reported in 2 cases. A further study of serotyping will help us in predicting the outcome of Dengue cases (especially secondary infection) with low platelet count.

Key Words

Dengue Prevalence; Dengue

Study of Prevalence of Hypothyroidism in and around Our College

K.Karthikraj,

2nd Year, MBBS; CHRI, Chennai
Contact Info: drtkkani6@yahoo.co.in

Introduction

Hypothyroidism, the most common endocrine disorder, is usually a primary process resulting from failure of the thyroid gland to produce adequate amounts of thyroid hormones. Prevalence report given by the Tamil Nadu chapter of ICIDD 2003 denotes that 27 districts out of 28 are endemic for hypothyroidism. The survey was carried out using cluster sampling method and the investigators looked for the presence of goiter and iodine deficiency and no biochemical analysis has been done. But an attempt has been made by the researcher to assess hypothyroidism using biochemical analysis.

Materials and Methods

Minimum sample size required for this study,calculated from P and Q values,was 887. But it was rounded off to 1000. Samples taken from outpatients attending our hospital, age group(5-60years), both sexes, from all income groups, chronic cases of goiter without treatment, people on treatment for hypothyroidism. Patients with acute or chronic ailments were excluded. 5ml of blood was taken from anterior cubital vein after a minimum fasting of 8 hours and serum was centrifuged. TSH,T3,T4 hormone levels were measured by Eliza using reagents from Lilac company. The collected data was analysed using the widely used statistical package, Statistical Package for Social Sciences(SPSS).

Results

Hypothyroidism is endemic in and around our college,more among females of age group 20-40 years.

Conclusions

Since large group of hypothyroid patients are asymptomatic, it is better to include biochemical surveillance of thyroid dysfunction especially in females of reproductive age group and in neonates.

Key Words

Hypothyroidism, Biochemical Analysis, ELISA

Prevalence of Social phobia Among Medical Students in Bijapur City

Katta Charu Goutham, Akshay Jadhav Sandesh, Srikanth, Muben

3rd year, MBBS; Shri.B.M.Patil Medical College, Bijapur
Contact Info: dr.charugoutham_1989@yahoo.com

Introduction

"I am afraid to present my seminar" would be the common phrase that we hear normally. Not all may be Socially Phobic in this case, but some are. And this is the topic I wish I would present in the conference.

BACKGROUND: Social phobia (social anxiety disorder) is a chronic, disabling and treatable anxiety disorder. It is manifested by excessive fear and avoidance of social situations. Epidemiological surveys indicate the incidence of the disorder 5-8% and illness intrusiveness compared to that of Panic and Obsessive Compulsive Disorder respectively. These data make the disorder most common anxiety disorder and one of the most common psychiatric disorders.

OBJECTIVE: Study of prevalence of Social Phobia in Medical Students.

Materials and Methods

Sample size: 456(formula used=4pq/d2, assumed prevalence rate=5-8%; based on previous surveys, total population size (1500), margin of error ±2.

Sampling method: Random sampling method

Materials used: SPIN (social phobia inventory-consists of 17 items on fear and avoidance to social situations each item is rated from 0(not present) to 4(extremely present).

Procedure: The subjects are asked to fill this self rating questionnaire. The entire sample population is divided into two equal subsets which correspond to two different medical colleges and each part is divided into 4 parts which corresponds to each class. So from each phase we are going to select 56 students randomly.

Inclusion criteria: Students studying M.B.B.S course are included

Results

The study showed that about 38.5% of the medical students showed the symptoms of social phobia.when the results wereanalysed with the help of t test of significance it did not show any relationship with demographic characters like age ,sex and class.

Conclusions

The research reproved the increase in the prevalence of social phobia.The high rate of prevalence in medical students is particularly dangerous as Medical Student apart from functioning as a

physician has incresed roles like health educator and presence of social phobia of any extent would seriously hinder the optimal performance of them .further research which could probe into the co morbid factor like depression and anxiety should be undertaken.

Key Words

Social phobia, Medical Students, Social Phobia Inventory



A Study of Salivary Malondialdehyde and Glutathione in Chronic Alcoholics Before and After Alcohol Withdrawal

Kevin J Chiramel, Dr. Shivashankara Ramachandrayya

3rd Year, MBBS; FMMC, Mangalore
Contact Info: mansionbrothers@gmail.com

Introduction

Researchers have used blood as the body fluid of choice in the evaluation of biomarkers of alcoholism. Saliva as a diagnostic fluid offers distinctive advantages. Whole saliva can be collected non-invasively, without the need for skilled persons and special equipments. Repeated saliva collection has least compliance problems for patients especially the elderly and children. There is paucity of studies analyzing salivary oxidant-antioxidant status in alcoholics.

Materials and Methods

This study was hospital-based. Chronic alcohol-dependent individuals (n = 30) admitted to the De addiction center, were the subjects of the study. They were subjected to an alcohol withdrawal regimen of thirty days. History of any chronic illness or systemic diseases, smoking or tobacco chewing habits, and duration of alcohol abuse, were collected from them. Saliva samples were collected from the subjects before starting withdrawal regimen and after the completion of thirty days of regimen. Healthy controls (n= 30) were included in the study. Saliva samples were analyzed for malondialdehyde, the marker of lipid peroxidation and glutathione, the antioxidant.

Results

Salivary malondialdehyde (MDA) level was significantly higher and glutathione (GSH) was significantly lower in chronic alcoholics when compared to controls. Levels of MDA and GSH correlated significantly with the duration of alcohol abuse, in alcoholics. After the withdrawal regimen of thirty days, alcohol abstainers showed a significant decrease of MDA and increase of GSH, these levels coming close to those of healthy controls.

Conclusions

Salivary oxidative stress markers could be of use in evaluation of alcoholism and alcohol-related complications. Further studies with larger sample size, involving correlation between blood and salivary parameters, are needed before establishing saliva as an alternative to blood, as a laboratory tool.

Key Words

Glutathione, Saliva, Malondialdehyde.

Study on Correlation between Plasma Glucose Levels and the Symptomatology and Complications in Diabetics

Kritika Malhotra, Samarth Shukla

Final year, MBBS; JNMC, Sawangi (Meghe), Wardha
Contact Info: drkritikam@gmail.com

Introduction

Our study was based on estimating the plasma glucose levels of

cases of diabetes mellitus, and evaluating them clinically for symptomatology and complications (mainly long term like atherosclerosis, neuropathy, nephropathy, retinopathy and infections), finally derive an etiological link and establish relation between the plasma glucose levels & symptomatology, and also predict future course of the disease & take precautionary measures. Glycosylated haemoglobin was not carried out despite the fact that it is very specific in evaluating cases of diabetes because of the cost and availability constraints which exist grass root levels. Similar studies conducted previously provide conflicting views regarding the same, leaving panel open for debate. High prevalence of diabetes and lack of knowledge about any definitive course of the disease makes our study highly relevant.

Materials and Methods

Ours was a cross-sectional study on 50 participants conducted in rural hospital over two months. History was obtained from patients and clinical examination and investigations done to detect complications. Their fasting and post-prandial plasma glucoses levels were correlated with complications with help of statistical tools.

Results

CVS, Renal, CNS, Eye and infective pathology were monitored , and the CVS was found to be extremely correlative with its complications vis-a-vis plasma glucose levels, though renal and eye systems correlated only with post-prandial levels, CNS and infective cases did not correlate with Plasma glucose levels.

Conclusions

We found that kidneys were most commonly affected and majority of patients with renal pathology presented with glomerulonephritis. Complications start soon after onset of disease. At any stage of the disease patients can present with any of the complications. Glucose levels significantly correlated with cardiovascular abnormalities. Neuropathy and infections gave ambiguous results. Its not possible to say at which level of glucose which organ damage will occur nor is it possible to predict future course of the disease.

Key Words

Glucose, Complications, Correlation

Prescribed Window Of Four Weeks for Using Eyedrops: Is it Justified?

Krittika Joshi, Shashank Purwar

Intern, MBBS; JN Medical College, Belgaum
Contact Info: krittika.41287@gmail.com

Introduction

Eyedrop solutions are assumed to be contaminated after extended periods of use and hence it is common practice to discard the used eyedrops after 4 weeks.

However, actual contamination may occur even before this period. Thus it is important to find out if the existing window of 4 weeks is valid or not.

The aims of the study were-

- i. To study the incidence of contamination of eye drops at various points of time before the period of 4 weeks
- ii. To identify the contaminating bacterial and/or fungal organisms



Materials and Methods

Using a cross-sectional study design, samples were collected from 10 bottles of mydriatic eye drops being used in Ophthalmology OPD over a period of four weeks at various points of time. The samples were cultured using appropriate media and the resultant growth, if any was identified.

Results

In this study, incidence of contamination occurring before 4 weeks was found to be 20%. The earliest contamination occurred after 2 weeks and 2 days.

Contaminating organisms were Micrococci and Enterococci

Conclusions

The time frame of 4 weeks viability of eyedrop preparations thus seems to be invalid as, when tested under real conditions such as this study, contamination was found to occur much earlier. The reasons for this are varied.

Key Words

Eyedrop, Contamination, 4 Weeks

Assessment of Predictive Value of Anthropometric Parameters in Stroke

Krupa Gowri P.H., Dr.Prashanth Y.M.

*3rd Year, MBBS; FMMC, Mangalore.
Contact Info: krupagowri.89@gmail.com*

Introduction

Cerebrovascular diseases are the third leading cause of death worldwide. Cerebrovascular diseases include ischemic stroke, hemorrhagic stroke, and cerebrovascular anomalies. Modifiable risk factors are the targets for the primary intervention approach in stroke prevention. Obesity is one such modifiable risk factor which has shown to be closely linked to the incidence of stroke. The term anthropometric refers to comparative measurements of the body. These measures are then compared to standards to assess the risk for various diseases.

Materials and Methods

This was a hospital based study. Stroke patients (n=25) admitted to hospital were included as subjects and control group (n=25) consisted of age and sex matched randomly selected patients admitted for other ailments were included after obtaining their informed consent. Both groups were submitted to a nutritional evaluation through anthropometric parameters such as waist circumference, waist-to-hip ratio and skin fold thickness (mid-biceps, mid-triceps, subscapular and suprailliac). Patients presenting with acute onset, focal neurological deficit (FND) having an evidence of infarct on CT scan were included and patients with neuropathy and hypothyroidism were excluded. The data obtained from the groups under study analyzed statistically using 't' test and chi-square test.

Results

Waist circumference was significantly higher in the studied group. Waist-Hip ratio was significantly higher in the studied group. There was significant association between the biceps and triceps skin fold thickness and the studied group. But there was no significant association between the subscapular and

suprailliac skin fold thickness and the studied group.

Conclusions

These results conclude that excessive body fat is linked to an increased risk of stroke and waist circumference, waist-hip ratio can be used as a predictive markers of stroke. They can be effectively utilized to educate the people at risk and counsel regarding the beneficial effects of weight reduction through various methods.

Key Words

Stroke, Waist Circumference, Waist-hip ratio.

Blood Lead Levels in Children and Environmental Lead Contamination in an Urban Population

Kusum V. Moray,

*3rd year, MBBS; Mysore Medical College and Research Institute,
Mysore*

Contact Info: kukimoray@gmail.com

Introduction

Lead is a heavy metal commonly found in the modern environment in air, soil, food, drinking water, and house paint. Significant exposure to lead is a threat to optimal health and development, especially in children. Major sources of the toxic heavy metal include leaded paint, leaded gasoline, recycled oil, ceramics, contaminated soils, and smelters. Very little attention has been paid in most of the developing countries to the role of lead and its impact on the environment and health. Our aim was to study prevalence of lead poisoning among children of age group 5-10yrs and to study correlation between blood lead levels and environmental lead content among the study population

Materials and Methods

It was a community-based cross sectional study involving interview, clinical examination and laboratory evaluation. It was carried out in the field practice area of department of community medicine, Mysore Medical College, Mysore. 25 children were randomly picked from the study area. Consent for the study was obtained from their parents. Socio-demographic data of the children was collected. Children were clinically examined for any signs of lead poisoning. Three ml venous blood of the child was collected under aseptic conditions. The environmental inspections involved the collection of representative samples from the floors, windowsills, tap water and soil. The blood samples were tested using model 3010B lead analyzer. Data were managed and analyzed using the SPSS software.

Results

3 (12%) of the study subjects had elevated blood lead levels. 19 (76%) of them had anemia. Statistically significant co-relation was found only in the case of window sill with p value of 0.002

Conclusions

Elevated blood lead levels and their consequent health damage is not a public health problem in the study population. Large scale screening programmes need to be initiated to assess the blood lead levels and environmental lead contamination.

Key Words



Blood Lead, Environmental Lead, Lead Poisoning

Prevalence of Absence of Palmaris Longus

Libu Varughese, Nisha Kurian, Mini Elizabeth Jacob, Samson S. Edayalamuriyil

House Surgeon, MBBS; PIMS, Tiruvalla
Contact Info: libuva@gmail.com

Introduction

Palmaris longus is one of the most variable muscle in the musculoskeletal system. The most common variation is the agenesis of the entire muscle. Many surgeons agree that it is a first choice as a donor tendon because it fulfills the necessary requirements of length, diameter, availability, and can be used without producing any functional deformity. Hence a clinical study has been attempted to assess the prevalence of absence of palmaris longus.

Materials and Methods

A cross-sectional study was done in the general population. Convenient sampling was done from patients, bystanders and students. A pre-designed proforma approved by the ethical committee was used for the study during the months of October and November 2008. The first part of the examination assessed the presence of palmaris longus by clinical inspection. The presence and absence of palmaris longus tendon was recorded on both sides. The subject was initially asked to do the standard test (Schaeffer's test) for the assessment of the Palmaris Longus tendon. If the tendon was not visualized or palpable, 4 additional tests were done to confirm the absence. If any one of the tests indicated the presence of palmaris longus then the muscle in that limb was considered to be present.

Results

The overall prevalence of absent palmaris longus was 12%. The unilateral absence of palmaris longus was 8% and bilateral absence was 4%. There was no difference between the right and left sides.

Conclusions

The prevalence of absence of palmaris longus (12%) in this population was less than most studies done in other ethnic groups. The unilateral absence was more frequent than bilateral absence of palmaris longus. There was no statistically significant difference in the clinical absence of palmaris longus between male and female or between right and left sides.

Key Words

Palmaris Longus

Bone Mineral Density and its Correlation with Different Variables in a Camp Conducted for Rural Population by a Tertiary Care Hospital

LOKESH.R, NIKHILAN.V, MUFEEDA.K, JASMINE SHALIKA.S, SATHISH BABU.C, THARANI.C.B.

2nd MBBS; Saveetha Medical College and Hospital, Chennai
Contact Info: lokey1991@gmail.com

Introduction

The health production status is the relationship between health status and the various factors that may be used to produce good health. The cases of disease and disability are gradually ameliorated by clinical and preventive intervention. Osteoporosis is usually recognized only when fracture occurs. So compelling reasons exist for undertaking community intervention for primary prevention. A camp for prevention and detection of osteoporosis was conducted on World Osteoporosis Day (21st October 2009) by Saveetha Medical College and Hospital, Chennai. We aim to study the Bone Mineral Density using the densitometer in the rural population and to analyse the variables and their correlation with Bone Mineral Density (B.M.D).

Materials and Methods

The Bone Mineral Density (T-score) was assessed for 204 subjects, both male and female of all age groups of which 155 had low bone density, termed as Osteoporotic and Osteopenic based on the severity of loss of bone mass. The various parameters like age, type of occupation, Body Mass Index (B.M.I.) personal habits like alcoholism, smoking, diet and also other factors like Thyroid problems, Bronchial asthma, Glucocorticoid usage, Hypertension, Type 2 Diabetes Mellitus, reproductive status, joint pain and history of fractures were noted, correlated with Bone Mineral Density (B.M.D) values and statistically analysed using the corrected-chi square test with $p=0.05$.

Results

The corrected-chi square test showed a significant correlation of Bone Mineral Density (B.M.D) with age, gender, Body Mass Index (B.M.I.), Hypertension, Type 2 Diabetes Mellitus, Thyroid problems, Bronchial asthma, Glucocorticoid usage, reproductive status, Smoking, alcoholism, joint pain and history of fractures.

Conclusions

The low bone mass occurs due to many predisposing conditions that are mentioned above, each factor has its own significance to Bone Mineral Density (B.M.D). We conclude that it is possible to correct these modifiable risk factors involved in disease progression and live a healthy life.

Key Words

Bone Mineral Density (B.M.D), Osteoporosis, t-score.

Minor Physical Anomalies in Schizophrenia

Madhan N

4th Year, MBBS; IRT Perundurai Medical College, Perundurai
Contact Info: madhan1989@gmail.com

Introduction

Minor Physical Anomalies [MPA] are slight dysmorphic features which are vulnerability markers in various Neuro-developmental illnesses including Schizophrenia. A Two Hit hypothesis had been put forth to explain the origin of Schizophrenia. The first hit is the prenatal hit which is believed to cause fetal neural maldevelopment. It interacts with the



second hit (environmental hit) and increases the vulnerability to develop Schizophrenia. The objective of our research is to evaluate the MPA in Schizophrenic Cases and compare it with that in normal healthy controls.

Materials and Methods

A case control study with a sample size of 38 cases and 46 normal controls was conducted. The participants were examined using modified Waldrop scale containing 23 MPA (15 craniofacial and 8 peripheral anomalies). Total MPA score and Number of anomalies were computed for all subjects. Student-t test was used to evaluate the total MPA score. Mann-Whitney U test was used to evaluate MPA scored with ordinal values and Fischer's-Exact test was used to evaluate MPA scored with nominal values..

Results

Total MPA score of schizophrenic cases (mean=5.68 SD=1.756) was found to be significantly ($p<0.001$) higher than that of healthy controls (mean=3.21 SD =1.69). Four or more anomalies better distinguished cases from controls classifying correctly 76.3% of cases and 76.1% controls. Almost all anomalies assessed were found to be more in Schizophrenic cases than in controls with anomalies like Fine Electric Hairs ($p<0.0001$), Low set ears ($p<0.001$), Fused Eyebrows ($p<0.01$), Abnormal Inter-canthal distance ($p<0.05$) showing statistically significant difference..

Conclusions

The MPA assessed in the study are derived from the ectoderm and their increase can thus be associated with the aberrant brain morphology observed in patients with Schizophrenia. Increased frequency of MPA in Schizophrenic cases denotes a strong prenatal component in the development of the illness and shows the neuro-developmental vulnerability individuals carry long before the onset of illness. So, detection of MPA in screening will go a long way in predicting the individual who is vulnerable for the future onset of Schizophrenia.

Key Words

MPA in Schizophrenia

Anticandidial Effect of Pseudomonas aeruginosa

Manisha Singh, Anupama M, Gopalkrishna Bhat.

3rd Year, MBBS; KMC, Mangalore
Contact Info: manishasingh_77@yahoo.com

Introduction

Interaction between bacteria and fungi has great environmental, medical and economical significance. The objective of the present study is to determine the anticandidial effect of Pseudomonas aeruginosa isolated from clinical specimens. The study can be furthered and used as an aid in early diagnosis and treatment for fungal infections.

Materials and Methods

The present in-vitro experimental study was conducted using three strains of Pseudomonas aeruginosa, isolated from clinical samples, were tested for their inhibitory effect on Candida albicans and Candida tropicalis. The inhibitory effect was studied using both liquid medium as well as agar plates by standard methods.

Results

All three strains of Pseudomonas aeruginosa inhibited and killed by Candida albicans and Candida tropicalis. A contact time as short as one hour was sufficient to exert inhibitory effect.

Conclusions

Pseudomonas aeruginosa inhibits and kills Candida spp. The antifungal effect of Pseudomonas aeruginosa requires further studies to know whether it could be used in a clinical setting in the treatment of fungal infections.

Key Words

Pseudomonas aeruginosa, Anticandidial Effect, Candida

Relation of Birth Weight to Different Maternal Factors

Manosij Maity,

3rd Year, MBBS; AGMC, Agartala, Tripura
Contact Info: manosij.theboy@gmail.com

Introduction

Low birth weight is a significant health problem for the family and society at large. UNICEF/WHO estimated the incidence of low birth weight in India as 30%(2008). The questions arising were; what is the prevalence of low birth weight in hospital set up at Agartala? What factors are responsible for this? Objective: Study the prevalence of low birth weight and maternal factors responsible for that in this hospital set up at Agartala.

Materials and Methods

Study design: prospective, Time period: two months(1st July of 2009 to 31st August 2009), Study place: indoor department of Obstetrics and Gynaecology of Agartala Govt. Medical College. Sample size: 482. After obtaining the proper informed consent, all mothers in the immediate post-partum period were interviewed and examined with the help of a pre-designed, pre-tested schedule. The data so obtained was converted into a database and analyzed by using SPSS 17 software. Chi-square test of significance was applied to test for association between two variables. A p-value <0.05 was considered statistically significant.

Results

Total low birth weight cases were 77 (15.97%) among which 2 (0.41%) were of very low birth weight (i.e.; weight less than 1500 gm) and the mean birth weight was 2.693 kg (SD= 0.41). The maternal factors, found to be statistically significant are, parity ($p<0.001$), Hb% ($p<0.05$), number of antenatal visits ($p<0.001$), hypertension ($p<0.05$), passive smoking ($p<0.001$), pre-pregnancy BMI ($p<0.001$), period of gestation ($p<0.05$), socio-economic status ($p<0.001$), bad obstetrical history ($p<0.001$).

Conclusions

Analysis showed 15.97% low birth weight babies are delivered which is lesser than the present status of prevalence of low birth weight in all over India (30%). This deviation might be due to the state wise variation in the proportions of institutional deliveries, maternal health care facilities, ethnic variations and low sample size. Being the first ever study of its kind in Tripura, it sets the platform for further detailed research on this issue.



Key Words

Low Birth Weight, Maternal Factors, Agartala

To Study the Etiology of Major Burn Trauma in Rohilkhand Region of U.P.

Meetinder Kaur Pardesi, Dr CGS Chauhan

IV Year, MBBS, Rohilkhand Medical College & Hospital, Bareilly, UP

Contact Info: mspardesi@rediffmail.com

Introduction

Burn trauma is quite frequent in India with 0.7 to 0.8 million hospital admission every year. Incidence vary from region to region & among different socio-economic groups. They also show seasonal variation.

Materials and Methods

This retrospective study was carried out in the Department of Surgery on 48 patients admitted in the Department of Surgery, Rohilkhand Medical Hospital, Bareilly. The data was collected on the basis of age, gender, percentage of burn etc. Data collected was entered into a standard proforma prepared for this study and analyzed .

Results

Analysis to sex record in our study showed that males were 64.5% and females were 35.5%. Young adults in 11 to 25 years of age group constituted maximum number of cases (45.8%) and least number of cases (8.5%) were in the age group above 45 years. In our study, most of the patients were married (62.5%), out of which (39.6%) were males and (22.9%) were females. Most of the patients attended the hospital after 5 hrs of injury. All the patients sustained accidental burn. In our study most common cause of burn was hot liquid burn (41.6%) which is followed up by flame (31.2%), chemical (8.3%), electrical (4%) and others (14.5%). Maximum number of female victims (12.5%) sustained burn more than >76%. Depth of the burn was mostly (45.8%). Overall mortality in this study was 20.8%. The overall number of maximum deaths (20.8%) occurred in patients with >75%. Amongst the victims who died maximum were female.

Conclusions

Educating the masses through the media showing various risk factors together with epidemiological data about burn injuries and call attention to make strategies to prevent these accidents. Steps should be taken not only to minimize burn mortality but also to prevent and reduce their incidence.

Key Words

Burn Trauma, Prevalence, Determinants

Histomorphometric Analysis of Dimensions of the Major Epicardial Coronary Arteries in Necropsy Cases: A Prospective Study

Mohit Satish Gupta, Vaibhav Sonar

2nd year, MBBS; GMC, Miraj
Contact Info: viruzz4u@yahoo.co.in

Introduction

Coronary artery disease is the major cause of sudden death globally. There have been very few estimates of normal coronary artery size in India and that too angiographically or radiologically. Keeping this in mind we will attempt to establish data for normal dimensions of the coronary artery segments in cadaveric hearts thus evaluating the actual anatomical dimensions in the local population.

Materials and Methods

This study will be conducted on approximately 30 human hearts obtained from medico-legal autopsies. Exclusion criteria: Hearts weighing more than 370 gms in males and 280 gms in females, hypertensive cases & patients with obvious cardiac diseases. Paraffin sections will be subjected to morphometric analysis using a micro projector. Using point counting and linear-intercept techniques, the area of tunica media and tunica intima, and lumen circumference will be measured. Then from these parameters, thickness of tunica media (Tm), thickness of tunica intima (Ti) and lumen diameter (D) will be calculated, related to heart weight, age & sex and will be contrasted with western data.

Results

The mean lumen diameter in males was greater than that in females. There was no significant correlation between lumen diameter and age or heart weight.

Conclusions

While this study has included only a small sample size so far, multi-centric studies for the collection of data pertaining to coronary artery diameter should be conducted .Correlation of data obtained from angiographic and anatomic methods will provide a clearer idea of the accuracy of contemporary in vivo measurement techniques. Such relevant clinical data could influence pre-operative assessment in several cardiac procedures. Furthermore should a statistically significant association arise between coronary artery diameter and clinical outcomes , then morphometry can become the mainstay of pre-operative considerations.

Key Words

Coronary Dimensions, Necropsy Coronary Artery Disease

Pattern of Emergency Obstetrics Care (Emoc) Services Utilization at Tertiary Care Hospital in my District

Mohit Sharma,

3rd Year, MBBS; JNMC, Sawangi
Contact Info: musicfreak_mohit@yahoo.co.in

Introduction

Many pregnant women experience life-threatening complications during pregnancy every year. Since we have no reliable method of predicting complications, focus has shifted from predicting complications to preparing for EmOC, which can be easily carried out by trained health professionals. Considering this, this study was planned to assess proportion of normal institutional deliveries against EmOC deliveries, causes (direct and indirect) for seeking EmOC and mode of intervention provided.



Materials and Methods

Study site: Department of Obstetrics and Gynaecology of my college.

Study type: Cross-sectional (hospital-based)

Data collection: Extraction from written facility records and interviews of women who landed in emergency.

Statistical analysis: By tests of significance like Chi Square and Multiple Logistic Regressions. Excel and SPSS package also used. Operational definition: Those subjects who utilized Basic EmOC (Parenteral antibiotics, Anticonvulsants, Vaginal delivery, Removal of parts of conception) or Comprehensive EmOC (LSCS, Blood transfusion)

Results

Most patients are from urban (59%) as compared to rural sector (41%). Majority (76%) of patients are between 20-30 years and literate enough to take decisions. 1/3 patients are either less than 20 years or between 30-40 years. Primigravida (47%) required more EmOC intervention. Of 698 deliveries, 267 deliveries (38.25%) required EmOC. Direct causes implicated were eclampsia, sepsis and hemorrhage while indirect causes include- Emergency LSCS, PROM, Oligo/Polyhydramnios, Vaginal delivery.

Conclusions

Low utilization of EmOC facilities, especially by poor women, is responsible for high maternal mortality.

Implication: This study has been done to enhance health outcomes among women and children by early enactment to ensure adequate care. Quality services at PHCs, Locally recruited, well-trained ANMs and birth attendants, Institutional deliveries and New born care could be focused upon to improve utilization of EmOC services.

Key Words

Emergency Obstetrics Care

Gender Differences in Perinatal HIV Acquisition Among Rural Infants

Monika Kuber Kotpalliwar,

3rd Year, MBBS; JNMC, Sawangi, Wardha
Contact Info: monikakotpalliwar@gmail.com

Introduction

HIV-positive women face the prospect of discrimination and illness, and also pass the HIV infection to their children. The most significant source of HIV infection in perinatal period is transmission from mother during pregnancy, childbirth or breastfeeding. The estimated number of children living with HIV in India is over 200,000 as per UNAIDS. This research aims to study the prevalence of HIV in rural females with the rate of transmission during perinatal period along with the gender differences in children born to HIV Positive mothers.

Materials and Methods

A cross sectional retrospective study was conducted among the 76 HIV Positive mothers of a rural hospital. Records were taken from the ICTC of the hospital and the data has been kept confidential. The collected data was analyzed to ascertain the clinical relevance of the study.

Results

The study showed the prevalence of HIV among rural mothers to be 0.56% during last three years. Out of 71 live babies born to 76 HIV infected mothers, only 48% were male babies while 52% were female during last four years. Among 47 babies born to HIV infected mothers who have completed 18 months, only 17 (36%) came for regular follow up. Of these 17 babies, 5 (29%) were found reactive. Hence, the rate of transmission during the perinatal period is 29%. The rate of transmission in male is 30% (3/10) while in females is 29% (2/7).

Conclusions

This study shows more intra-uterine deaths for male child in HIV positive mother. Males are at higher risk of transmission than females in the perinatal period. Proper counselling and follow up is a must for HIV mothers in Pre-natal period to reduce the prevalence of HIV in infants. However, similar study conducted on a larger sample size will be beneficial.

Key Words

HIV Positive Mothers, Prevention of Parent to Child Transmission (PPTCT), Perinatal HIV

Microbiological Study of Diabetic Foot

Ms KOCHERIL SHERYL MATHEWS, George Varghese, Dayananda Babu R, Jose Paul

Final Year MBBS, PIMS & RC, Tiruvalla, Kerala
Contact Info: sherylmathews01@yahoo.in

Introduction

Diabetic foot is a common problem requiring prolonged hospital stay. This study aims to find the prevalence of microorganisms in diabetic foot infection and the pattern of anti-microbial resistance in a tertiary care centre.

Materials and Methods

This is a retrospective study. Records from October 2009 to February 2010 of pus swabs collected from diabetic foot ulcers were reviewed. The swabs were inoculated in Blood agar, MacConkey agar, Thioglycolate broth for isolates and antimicrobial susceptibility testing. Extended Spectrum Beta Lactamase (ESBL) producing strains were identified by double disc diffusion method. Methicillin Resistant Staphylococcus Aureus (MRSA) were identified by sensitivity to cephoxitin.

Results

60.7% of the 102 patients studied were males. The age group most commonly affected was 51-70 years (41.1%) followed by 71+ (35.2%). Gram positive organisms were frequently isolated (33.3%) as compared to gram negative (12.7%). 50.9% of smears showed mixed bacterial flora. Pseudomonas was the commonest organisms (33.3%) followed by staphylococcal aureus (23.5%) and E. coli (22.5%). ESBL production and methicillin resistance was noted in 14.7% and 15.6% respectively. From a total of 146 strains, 34 were Pseudomonas species of which 52.9% were Multidrug resistant (MDR). 24 strains of Staphylococcus were isolated and 66.6% of them were MDR. 61 strains of Enterobacteria were isolated and 70.5% were MDR. Of the 19 strains of Enterococcus isolated, 31.57% showed MDR. 6 strains of Acinetobacter species isolated, 33.3% showed MDR. All strains of Streptococcus were found to be susceptible.

Conclusions



Diabetic foot ulcers are commonly infected by MDR organisms and associated with failure of antibiotic therapy. This occurs mainly due to irrational use of antibiotics, stressing the need for a specific protocol in antibiotic administration. Treatment should be based on culture and susceptibility report. Continuous surveillance for resistant bacteria is required for effective therapy and reduction of complications.

Key Words

Diabetic foot, Microorganisms, Drug Resistance

Attitude Of Relatives Of Psychotic Patients Towards ECT

Natasha Jain,

Intern, MBBS; NKPSIMS, Nagpur
Contact Info: nutley53@rediffmail.com

Introduction

ECT is a technique in which seizures similar to those of epilepsy are induced by passing a current of electricity through the forehead. It is useful for treatment of major depression, acute psychosis & catatonic schizophrenia. Knowing the attitude of psychotic patients' relatives is important since their consent is taken before administering ECT. Study question: Does administration of ECT to the psychotic patient have any effect on the attitude of their relatives? The aims were to study the attitude of psychotic patients' relatives towards ECT; to study the difference, if any, in the attitude of patient's relatives who have undergone ECT v/s those who have not; & to study the attitude of general population towards ECT & to study if this differs from the attitude of psychotic patients' relatives.

Materials and Methods

The study consists of three groups—Groups A & B each consisting of 30 relatives of psychotic patients who had undergone ECT; & who had not undergone ECT respectively. Group C consisted of 30 persons matched for age, sex & education from general population. A self developed 8 questions questionnaire was utilized. Chi square test was used for statistical analysis of the data.

Results

Group A had a positive attitude towards ECT; Group B was in between Group A & C; while Group C had a negative attitude.

Conclusions

The attitude of relatives of psychotic patients who had undergone ECT was found to be more positive & they had fewer misconceptions than group B & C. Discussion: The study can be improved if the level of education of the relatives is also taken into consideration while knowing their attitude towards ECT. Implication: Mass education, laying stress on the areas of misconceptions, should be given so that ECT can be given to the appropriate patients.

Key Words

Attitude, ECT, Relatives

Expression of Stigma and Related Consequences faced by HIV+ Women

Neha Ahluwalia

2nd Year, MBBS; Mahatma Gandhi Medical College, Jaipur
Contact Info: neha_may_walia@hotmail.com

Introduction

For people diagnosed as HIV+, no area of life remains untouched by stigma associated with the disease. HIV-related stigma and discrimination continue to create major barriers in preventing further infection, alleviating impact and providing adequate care. The study aims at examining the various forms of expression of stigma that plague the lives of HIV+ women in Rajasthan and how this leads to loss of livelihood, poor health care services, negative self image and concealment of their HIV status.

Materials and Methods

Under the aegis of RNP+ (Rajasthan Network for People living with HIV/AIDS) 130 HIV+ women between the age group of 18 to 65 were interviewed using a pretested questionnaire after getting verbal consent. The questionnaire included questions regarding various forms of stigma categorized into four groups: physical, social, verbal and institutional faced by them. Data was compiled and statistically analyzed using proportion, percentages and chi-square.

Results

Out of 130 women, physical stigma (25.1%) in the form of isolation from their family was more widespread compared to violence (16.32%). Social stigma (44.03%) faced was characterized by the disappearance of existing friendships. Verbal stigma (33.4%), where derogatory and demeaning language were used to label the individual. The most profound consequence was loss of employment (66.6%) upon disclosure whereas 19.74% received inferior health care services. A huge percentage (53.07%) harbored a negative self image, believing they had no future. 39.2% women disclosed their HIV status.

Conclusions

Women's lack of access to resources and dependence on husbands leaves them particularly vulnerable to abandonment and separation from their family. Huge percentage (66.6%) experienced loss of livelihood upon disclosure of their HIV status. Because of the stigma and discrimination faced, they have declined to divulge their status to society. This reveals the need for more HIV/AIDS awareness programs and schemes to empower HIV+ women by ensuring secure means of livelihood.

Key Words

HIV+, Stigma, Women



Psycho-Socio-Economic Problems- A Hindrance for Utilisation of Medical Termination of Pregnancy (MTP) Services in Rural Areas of My District

Neha Chandak,

3rd Year, MBBS; JNMC, Sawangi
Contact Info: cattyneha1@yahoo.com

Introduction

In India, MTP Act was legalized in 1971. However, psycho-socio-economic circumstances have compelled women to terminate pregnancies by quacks. This study attempts to find why after 3 and 1/2 decades of legalization, MTP services remain underutilized, particularly in rural areas and aims to encourage women to undergo safe abortion, to protect girls from abuse, and to reduce maternal mortality and morbidity rates.

Materials and Methods

Study site : Department of Obstetrics and Gynaecology of my college
Study type : Cross-sectional
Study size : 200
Study participants : Advanced pregnancies between 15-40 years due to Contraception failure, Lactational amenorrhea, In unmarried girls, Sexual abuse
Data Collection : By a questionnaire containing direct questions.
Data Analysis : By standard tests like Chi Square and Multiple Logistic Regressions. Excel and SPSS package also used.

Results

94% women were married. Around 50% husbands were educated upto Class X. Only 61 women knew about MTP, of which 62.29% believed that it is illegal. Most women are labourers. 2/3rd women shared a joint family. 51% are not psychologically supported by husband and family members. A startling fact is that 95-96% are unaware of safe abortion services. 78.5% are forced to continue pregnancy. Economically, > 50% are not supported by the husband and 69% by family members.

Conclusions

Underutilization is mainly due to unawareness about safe MTP services. Negative psychiatric sequelae in women who undergo MTP with psychological support of husbands and family is minimal. Many women believed that MTP was illegal (ICMR, 1989). Therefore, women undergo abortion at quacks where confidentiality is maintained. Home administration of drugs is convenient in developing countries. This study is implicated at creating awareness in rural population about MTP.

Key Words

Medical Termination of Pregnancy

presentations. A study of various aspects of hydatid disease was done.

Materials and Methods

A retrospective study of 50 cases of hydatid disease admitted to surgical wards at Government Medical College, Nagpur [mean age=34.86y (M=32.76, F=36.38)] from June 2007-Feb 2010 was done. The cases were studied for age, sex, organs infested, clinical presentation and sensitivity and specificity of USG and CT scan.

Results

Hydatid cyst was predominantly found in females (44% M /56 %F) commonly between 31-40y (30%).The most common presenting symptom for liver hydatid(28) was pain in abdomen in 27 patients (77.14%), lump in abdomen (51.4%), fever and jaundice (20%), daughter cyst in expectoraton, bile in sputum (2.85%). For lung(13)- cough with or without expectoration (38.46%) was the commonest symptom. Chest pain (30.76%), dyspnea (23.07%) and expectoration of daughter cysts (7.69%) were the other symptoms. Liver was the commonest organ involved, isolated liver involvement (56%), liver+lung (10%), liver+retroperitoneum in (2%), liver+gastrocolic omentum in (2%). Right liver lobe involvement was more common (74.20%). Single hydatid cyst was found in 25 cases (71.42%) & multiple cysts in 10 (28.57%). Right lung was involved in (66.23%) and left lung was involved in (30.77%). On X-ray chest, circumscribed opaque shadow in 9(92.3%), pleural effusion in 5 [4R, 1L] (38.46%) & water-lilly sign in 1. On USG (n=42), simple cysts (52.38%), multiple cysts (47.61%), daughter cysts- (42.85%), internal echoes- (38.09%) hydatid sand- (7.14%), calcification (patchy) (2.38%. On CT scan, simple cyst (60%), multivesicular cyst (20%), cystobiliary communication (37.14%), cystobronchial fistula (8%), air foci in liver cysts (6%), calcifications(patchy) (2%).

Conclusions

Although liver is the most common organ involved in Hydatid disease, multi-organ involvement should be sought for. The imaging studies of USG and CT scan help in diagnosis and management.

Key Words

Clinical Presentation, Diagnosis

Nurses' Perception of Inter-Professional Co-operation with Doctors in KMC Hospitals

Neil Dominic Fernandes, Siti Zahida, Nor Fazehan, Pavan Bang, Kruthi Malur, Saurabh Agarwal

2nd Year, MBBS; KMC, Mangalore
Contact Info: neilnf@gmail.com

A STUDY OF HYDATID CYST

Neha Lalit Lad, Dr. Abdul Quraishi (Guide)

Intern, MBBS; GMC, Nagpur
Contact Info: nehalad798@gmail.com

Introduction

The hydatid cyst is endemic in Vidarbha region with varied

Introduction

Today's doctor-nurse relationship consists of a simple hierarchy with the doctors being in the superior division. This study was conducted to find out the nurses' perception of doctors and the inter-professional co-operation at Mangalore.

Materials and Methods

A cross sectional study was conducted among 200 nurses in 3 teaching hospitals of KMC, Mangalore, using a semi structured questionnaire after obtaining their verbal consent. The list of names was obtained from the respective medical



superintendents and the study subjects were chosen by simple random sampling. Some questions were analyzed using 5 point Likert scale. Data collected was fed into Microsoft Excel and analysis was done using SPSS v.11.5.

Results

Majority of nurses (87.5%) believed that doctors understood the responsibilities of a nurse. Though the nurses said they found it easy to approach doctors for advice, most (81%) of them said they would approach a nurse before approaching doctor. 34% of nurses say that they have never encountered any conflict with doctors. Majority of nurses (63.5%) have no knowledge regarding any specific policy for dealing with disagreements. 65.5% of nurses think that their disagreement with doctors doesn't affect patient health care. 55% are of the opinion that they are consulted by doctors regarding patient care and treatment. Even though 86.5% of nurses feel that their judgment is respected by doctors, 62.5% of the nurses are of the opinion that they are forced to follow the doctor's decision. 52.5% of the nurses were satisfied with their relations with doctors of the hospital. Though most nurses (60%) feel that there is a friendly relation, some still perceive there exists a hierarchy (27%) in which the nurses occupy the lower level compared to the doctors.

Conclusions

Our survey showed that there was not much of misunderstanding between the doctors and nurses, but there still was some scope for improvement.

Key Words

Nurses, Inter-professional, Relationship

A Delayed Release Formulation of Pregabalin By-Passes Cytochrome P450 3A4 Mediated Gut Metabolism in Rats

Nikhil Nangru, Ashish K. Rehni, Thakur Gurjeet Singh and Sandeep Arora

4th year, B. Pharmacy, Chitkara College of Pharmacy, Chandigarh-Patiala National Highway, Rajpura- 140401, Patiala, Punjab, India.

Contact Info: nikhilnangru@gmail.com

Introduction

Pregabalin is a synthetic antiepileptic drug exerting its action by enhancing gamma amino butyric acid release. Moreover, pregabalin is multiple reported to produce a remarkable effect on neuropathic pain conditions. However, a number of dose related side effects discourage the use of this relatively recent drug to such pathophysiological conditions. Further, our group has recently shown that the drug when injected in the colon demonstrated a markedly enhanced anti-nociceptive effect as compared to when the same dose was administered orally or through intra-ileal route. Therefore, the present study was designed to investigate the effect of CYP3A4 inhibition on the pregabalin metabolism related variations in its anti-nociceptive effect and to further explore the advantage of a delayed release formulation of pregabalin in terms of enhanced efficacy.

Materials and Methods

Nociceptive threshold was measured in the terms of tail flick

test and Eddy's hot plate test results. Ketoconazole (azole antifungal) and erythromycin (macrolide antibiotic) were employed as selective inhibitors of CYP3A4. Group I received a single oral dose of pregabalin; Group II received a single intra-ileal injection of pregabalin; Group III received a single intra-colonic injection of pregabalin; Group IV-V received the CYP3A4 inhibitors prior to the oral dose of pregabalin Group VI received a single oral dose of pregabalin capsules coated with pH-sensitive polymer (Eudragit S-100).

Results

Intra-colonic administration of pregabalin elicited a markedly elevated anti-nociceptive effect of the drug as compared to when administered orally or through intra-ileal route. Moreover, prior treatment of the individual CYP3A4 inhibitors on the rats significantly increased the efficacy of oral pregabalin potentially due to the suppression of CYP3A4 induced pregabalin metabolism in the gut.

Conclusions

Further, eudragit S-100 coated pH sensitive delayed release pregabalin capsules also elicited a markedly enhanced effect of the drug thus validating the requirement of a controlled release product of the same.

Key Words

Pregabalin, Drug Disposition

Evaluation of Causality of Adverse Events in the Medical Intensive Care Unit of a Tertiary Referral Centre in Mumbai: A Comparison of Three Scales

Ninad Maniar, Jhanvi Bajaj, Kushal Naik, Niteen Karnik, Dilip Karnad, Vishal Gupta, Urmila Thatte, Nithya Gogtay

2nd Year, MBBS; Seth GSMC, Mumbai
Contact Info: ninadm2006@gmail.com

Introduction

Adverse events are a leading cause of mortality and morbidity in health care centers worldwide. Assessing causality of adverse events poses a major challenge. Currently several scales are used, however no gold-standard exists for the causality assessment of adverse events.

Materials and Methods

Data about adverse events was collected prospectively over a six week period. There were a total of 140 patients and 180 adverse events. All events were analyzed using both, the Naranjo and the WHO scale separately. Of the 180 events, 19 were drug related and 161 were non drug related events. Only the drug -related events could be analyzed

Results

Using the Naranjo and the WHO scale only 19 (10.55%) of the adverse events could be analyzed. The remaining 161 events were either classified as 'Unlikely' or 'Unassessable' by the two scales. The 19 events that could be analyzed were drug related. To analyze the non drug related events a new patient-oriented scale was developed which included such elements as previous documented evidence, suitable temporal correlation and predisposition to the given event. Using this scale, all 180 events were assessed for causality. We found the new scale more



effective in the analysis of non-drug-related and procedural adverse events than the two mentioned above

Conclusions

The results of the Naranjo and the WHO scale show that non-drug-related adverse events are difficult to analyze using these algorithms. This necessitates the need for a new algorithm to assess the causality of non-drug-related events, which are fairly frequent in their occurrence.

Key Words

Causality Scale, Adverse

Comparison of 'WHO', 'IAP' and 'ICDS' Growth Charts of Under Five Children-Issues and Implications for the Child Health Programmes in India

Nithin Kondapuram, Savitha.M.R

Intern, MBBS; Mysore Medical College & Research Institute, Mysore-01

Contact Info: kondapuram_nithin@yahoo.co.in

Introduction

Growth monitoring in first five years of life which contribute to the valuable physical, cognitive, social and emotional development of the person's character is done using growth charts which forms an essential component of pediatrician's tool kit. In India, three growths charts namely World Health Organization(WHO), Indian Academy of Pediatrics(IAP) and Integrated Child Developmental Scheme(ICDS) growth charts are being widely used. But there is no uniformity in the usage of growth charts for Indian children. Thus there is an urgent need to decide on which chart to be used for our children. Hence, present study was undertaken to compare currently used growth charts.

Materials and Methods

1070 preschool children (below age of 5 years) attending 72 Anganwadi centers in our area were taken as the study group. These children were subjected to evaluation of Weight, Length/Height, Head circumference and Body Mass Index. Measurements were plotted on all three growth charts. Statistical methods were carried out through SPSS for Windows (version 16.0).

Results

There were 577 boys and 493 girls(1.17:1), predominantly in age group of 2-4 years. ICDS chart detected 54.3% children as underweight as compared to WHO(88.7%) and IAP(91.2%)($p < 0.000$). According to WHO height chart, 91% children were stunted, compared to IAP (85%) ($p < 0.000$). 80% of children were detected as low BMI according to WHO chart and 87% according to IAP ($p < 0.001$). WHO Head circumference chart detected 80.64% of children as microcephalic compared to 64.05% detected by IAP ($P < 0.001$). In all anthropometric measurements, girls were more growth-retarded compared to boys.

Conclusions

ICDS growth charts are under-diagnosing the low weight children compared to WHO and IAP growth charts. WHO chart shows a higher prevalence of stunting and microcephaly and IAP growth chart shows higher prevalence of low BMI.

Implication:There is an urgent need to revise the presently used ICDS growth chart.

Key Words

Growth Charts Comparison

Knowledge, Practices and Risks Associated with the Use of Personal Listening Devices (PLDs) Among the Students Of KMC, Mangalore

Parvathy Premchandran, Rekha T, Annapoorna U. Nair, Kritika Sharma, Dinesh Kumar H, Ashar Iqbal Lodi, Avinash Bajjuri

2nd Year, MBBS; KMC, Mangalore

Contact Info: paro_7wonders@yahoo.com

Introduction

PLDs are electronic gadgets which allow users to listen to music uninterrupted for prolonged periods and at levels that may pose a risk for various health hazards eg. Earphones. Aim: To determine the knowledge, practices and associated risks with the use of Personal Listening Devices (PLDs) among the students of KMC, Mangalore.

Materials and Methods

This is a cross sectional study conducted among the students of Kasturba Medical College, Mangalore. A total of 487 students were selected by means of non-probability sampling from the student body. Data was collected in a semi structured questionnaire. Data collected was entered in MS Excel and analysis was done in SPSS version 11.5. A scoring was done to assess the knowledge of the students.

Results

In the study, majority of the users (46%) were in the age group of 18-20 years and 56.3% were males. 60.3% of the students use earphones. Of these, 73.7% use in ear types. 45.5% of the students have used PLDs for 1-3 yrs. 76.7% use PLDs for 1-3 hrs daily. 47.9% of the students use PLD's while studying, 43.4% while exercising, 24.1% while sleeping & 45.5% share their PLDs with others. 10.8% of the students suffered from PLD related ear infections.

Conclusions

From our study, it is evident that majority of the users carry out their day to day activities with the PLD's plugged in (i.e. sleeping, studying, aerobics) which has resulted in health hazards in many of them. Most of the students are aware of the dangers of PLD usage and are ready to take up measures to rectify the damage caused. Limitation: The study was done during college hours so it was difficult to get permission from the respective teachers to conduct the study. Implications: With increase in the usage of PLD's, various associated health hazards are developing among students.

Key Words

Personal Listening Devices, Students



A Study Exploring the Effects of Anti-Tubercular Drugs on CD4 Count in HIV & TB Patients

Pawan Chawla,

3rd year, MBBS; MMCRI, Mysore
Contact Info: ficus_pwn@yahoo.co.in

Introduction

Worldwide, TB is a leading cause of death among persons infected with HIV. Co-infection with HIV and TB presents another challenge: possible complications from interactions between the drugs used to treat HIV and the drugs used to treat TB. So here I am presenting a small research work to find out the effect of Anti-tubercular drugs on CD4 count in HIV/TB co-infected patients and to study the beneficial or adverse effects of Anti-tubercular drugs over Anti-retroviral therapy.

Materials and Methods

To characterize the presentation and management of ATT & HAART, a review of case notes of patients was seen in the ART Centre. Then Records were analysed for the 8-month period January-August 2009. 3ml of Blood samples of all volunteer patients were taken & sent for estimation of CD4 count using BD FACSCalibur. Then reports were noted down by comparing both the study groups and their specific characteristics like CD4 count, side effects etc. to understand the proper effect of Anti-tubercular drugs.

Results

CD4 Count is increased in majority of study subjects (70%). On comparison to only HIV+ subjects (22.5%), no. of subjects with decreased CD4 count is more in HIV+TB+ subjects (37.5%). T-Test is 0.456, DF is 54 & p is more than 0.05. Most of the patients (82.5%) were facing problems like skin-rashes, vomiting, burning sensation in abdomen, stress etc.

Conclusions

82.5% study subjects had side effects with a greater proportion of HIV/TB co-infected subjects. So Anti-tubercular drugs might have some connection with the side effects. The ratio of increment to decrement of CD4 Count in ATT+HAART takers is smaller than HAART takers. So Anti-tubercular drugs might have opposite effect on CD4 cells or might cause by opposing the function of HAART but due to inadequacy of sample size a proper conclusion cannot be drawn.

Key Words

HIV-Tuberculosis Coinfection, CD4-Count, Anti-tubercular Therapy

Modulation of Leukotrienes Attenuate Nicotine Withdrawal Syndrome in Mice

Peeyush Ghalotra, Ashish K. Rehni, Thakur Gurjeet Singh and Sandeep Arora

4th year, B. Pharmacy, Chitkara College of Pharmacy,
Chandigarh-Patiala National Highway, Rajpura- 140401,
Patiala, Punjab, India.
Contact Info: pghalotra@gmail.com

Introduction

The present study has been designed to investigate the effect of Montelukast, selective leukotriene receptor blocker, and 1,2,3,4 tetrahydroisoquinoline, a biosynthesis inhibitor of Leukotrienes on the development of nicotine dependence in mouse models of nicotine withdrawal syndrome.

Materials and Methods

First, Nicotine (2 mg/kg, s.c.) four times daily after every 2 hrs, was administered for a period of eight days following which a discontinuation of Nicotine for a period of 20 hours precipitated Nicotine withdrawal syndrome in mice. Secondly, Nicotine (2.5 mg/kg, i.p.) four times daily after every 2 hrs, was administered for a period of seven days following which a single injection of Mecamylamine (3 mg/kg, i.p.) precipitated Nicotine withdrawal syndrome in mice. Behavioral observations were made for a period of 30 min immediately after mecamylamine treatment. Withdrawal syndrome was quantitated in terms of a composite withdrawal severity score and elevated plus maze test results.

Results

Montelukast and 1,2,3,4 tetrahydroisoquinoline markedly and dose dependently ($p < 0.01$) attenuated experimental nicotine withdrawal syndrome in mice measured in terms of withdrawal severity score and elevated plus maze test results. However, Montelukast and 1,2,3,4 tetrahydroisoquinoline administration did not demonstrate any alteration of activity of the central nervous system as assessed in terms of locomotor activity count thus ruling out any per se sedative action of the drug.

Conclusions

Thus, it may be suggested that leukotrienes might be involved in the development of nicotine dependence induced precipitation of its withdrawal syndrome and thus, may serve as a viable pharmacological target to tackle the problem of nicotine addiction.

Key Words

Nicotine Dependence, Withdrawal Syndrome, Leukotrienes

Assessment of Systemic Risk Markers of Cardiovascular Diseases in Patients with Periodontitis- A Case Control Study.

Pooja Telang, Aneesa Acharya

Intern, BDS; Dr.D.Y.Patil Dental College, Pimpri, Pune
Contact Info: worshipme@rediffmail.com

Introduction

Recent epidemiologic studies have implicated periodontitis as a risk factor for atheromatous changes in blood vessels and subsequent vascular events leading to cardiovascular diseases. The purpose of this study was to determine an association between periodontal disease and levels of systemic risk markers of cardiovascular disease.

Materials and Methods

24 adult subjects between 30-60 years were selected for this study. Case group comprised of 12 subjects diagnosed with severe chronic generalised periodontitis. 12 subjects with healthy periodontal status were chosen as controls. Fasting venous blood samples were collected and analysed for



parameters of lipid metabolism, namely LDL, HDL and Total cholesterol. Also total WBC count was determined.

Results

The total WBC count, serum LDL and serum Total Cholesterol Levels were significantly elevated in subjects with severe periodontal disease as compared to subjects with healthy periodontal status.

Conclusions

The results indicate that a positive association may exist between periodontal disease and systemic risk markers of cardiovascular diseases.

Thus periodontal treatment must be recommended to improve the overall health of the patients as periodontal disease may be a potential risk factor for cardiovascular disease.

Key Words

Periodontal Disease, Cardiovascular Disease, Risk Factor

A Study of Diabetic Risk Assessment Among Adults Aged 20-45 Years Attending the Out-Patient Department of a Rural Health Centre in Tamilnadu

Pradeep Sivaraj, Prasanna Narayanan, Suvetha

*Intern, MBBS; PSG IMSR, Coimbatore
Contact Info: drspdeep@gmail.com*

Introduction

India has the highest prevalence rates of diabetes i.e. about 20% of the total diabetic population in the world. India is now the diabetic capital of the world. The concentration of diabetes is more in urban people than in rural people. The Indian diabetic risk score was done on the urban people only. The diabetic population of India is increasing in both urban and rural areas. So this study uses the IDRS to assess the diabetic risk score for the rural people. To assess the diabetic risk of the adults aged 20-45 yrs, attending the out-patient department of a rural health centre in Tamilnadu using the Indian Diabetic Risk Score.

Materials and Methods

The people aged 20-45 coming to Karadivavi rural health centre for any ailments other than diabetes are included in the study after getting an informed consent. For those subjects diabetic risk assessment was done using Indian Diabetic Risk Score (IDRS). The parameters used in IDRS were age, family history, exercise, abdominal girth.

Results

The total numbers of subjects were 50. Out of these 50 subjects, 32 were males and 18 were females. Out of these 18 females, only 28% are in the mild risk. As age increases, the risk also increases, 35-45 age group people had the 'severe risk'. Only 20% of the subjects had positive family history. Based on physical activities, 48% of the subjects fall into mild risk. IDRS score showed only 46% of subjects were in mild risk group.

Conclusions

Not only urban people are affected, significant percent of rural people are also affected. This study shows that the population was more in mild group and followed by the moderate and

severe groups. This data can change soon due to urbanization. We need more attention towards women regarding weight reduction, life style changes and to prevent diabetes.

Key Words

Diabetic Risk Assessment

Outcome of Pregnancy in Lady Goshen Hospital, a Hospital Based Retrospective Study

Pratheeksh .P

*2nd year, MBBS; KMC, Mangalore
Contact Info: pratheeksh_ps@hotmail.com*

Introduction

A mother's health profoundly affects the health and well being of her children. Maternal health refers to the health of woman during pregnancy, childbirth and post partum period.

Materials and Methods

A retrospective hospital based study was conducted in Lady Goshen hospital among all those patients who were admitted for their pregnancy-related issues. Data was collected using a semi-structured proforma from the records available from the hospital record room. Data collected was fed into Microsoft Excel and analysis was done using SPSS v.11.5

Results

Out of 119 cases studied, the mean age of conception was 25.6yrs.

95(79.5%) of women were illiterate and 110(92.4%) women's spouses were unskilled workers(coolies). Out of 119, 104 pregnant women gave live birth to 93(78.2%) full term babies, 7.10% pre-term and 9.96%post-term babies. 87.4% women had taken TT injections.

92 women (77.3%) did not develop any complications during their present pregnancy. 14 women (11.8%) had developed pre-eclampsia.

104 women(87.4%) had a normal delivery, followed by 11(9.2%) who had abortions and 3(2.5%) had still births. Apgar score was 9 for 87.4% of neonates.

Conclusions

Most of women had husbands who were unskilled workers earning an average income of Rs.1500. Majority of cases had not developed any complications during their current pregnancy and had full term normal delivery. Regular antenatal checkups and 2 doses of TT injections were also taken by maximum number of women. Majority of the outcomes of pregnancy was live birth, with most of the babies full term ,with vertex presentation and having above average Apgar score.

Key Words

Outcome, Pregnancy, Health



Testing the Association between C-Reactive Protein and Pre-Eclampsia in Rural Women: A Case-Control Study

Prathibha P.R

3rd year, MBBS; RIMS, Raichur
Contact Info: pratibha.pr@gmail.com

Introduction

Pre-eclampsia (Pregnancy induced Hypertension with proteinuria-PIH) is not simply hypertension arising in pregnancy, but is a disorder affecting virtually every organ and body system. Clinical and biochemical evidence suggests a disturbance in normal endothelial cell function and might be a primary cause of pre-eclampsia. Endothelial dysfunction is accompanied by elevated levels of C-reactive protein which is shown to be higher in women with PIH than in healthy normal pregnant women. Recently, it was reported that elevated CRP appears to be an independent predictor of PIH.

Materials and Methods

It is a case control study having a sample size of 50(25 cases and 25 controls). Materials required: Sphygmomanometer, Quantitative determination of CRP in human serum by Turbidometric immunoassay, informed consent form. A series of cases for this study would be taken from amongst the patients who would attend the Obstetrics department of government hospital. The normal control group will comprise pregnant women aged between 18-35 years of age who do not have PIH as confirmed by sphygmomanometric measurements. The cases and controls would be matched for age and parity. The normal range of CRP as indicated in the assessment of kit is: CRP: 0 to 5 mg/L.

Results

It was found that among 25 cases, 17 had raised CRP and 8 had normal CRP levels. 3 had raised CRP and 22 had normal CRP levels among controls. It was seen that the mean values of CRP, systolic and diastolic blood pressure, SGOT, SGPT are higher in cases when compared to the control group. The prevalence of raised C-reactive protein among cases is 68%

Conclusions

On the basis of the findings in this study, it can be concluded that raised CRP levels are seen in Pregnancy Induced hypertensive parturients, and it is statistically significant. A 68% prevalence rate of raised CRP in PIH patients against 12% in controls.

Key Words

CRP in PIH

A Study on Outcome of Pregnancy in Mothers Having Previous Caesarean Section

Praveen Davuluri

3rd Year(Part II), MBBS; GMC, Nagpur
Contact Info: dpraveen13@gmail.com

Introduction

Pregnancy with previous caesarean section is quite prevalent. Scar rupture, haemorrhage, placental abnormalities are some risks encountered in such cases. This study was carried out to assess the maternal and foetal outcome in present pregnancy & the various indications of a repeat caesarean section and complications so that a definite protocol can be designed for selection of patients suitable for a Trial of labour.

Materials and Methods

A prospective study was carried out in the Government Medical College, Nagpur from July to August. 100 antenatal mothers having history of previous caesarean section were followed up till delivery using suitable proformas. Pregnancy outcome was assessed with reference to indications of previous section, maternal age, previous vaginal delivery, birthweight etc. Statistical analysis was done by chi-square test, t-test using software STATA version 10.

Results

Of 100 patients, 27 delivered vaginally. MPOC was an indication for repeat section in majority(17.8%) followed by cephalopelvic disproportion(12.3%). CPD, failure to progress and bad obstetric history were found to be recurrent indications. Patients with a history of previous vaginal delivery were more successful in having a vaginal delivery than those with no such history ($p < 0.05$). Mean age of patients who delivered vaginally was significantly lower than those who delivered by repeat section ($p < 0.0001$). The mean birthweight of neonates who were born by vaginal delivery was significantly lower than those born by repeat section ($p < 0.0001$). There occurred one patient with scar dehiscence and two with postpartum haemorrhage. There was 1 stillbirth with no maternal mortality.

Conclusions

More than a fourth of patients could be delivered vaginally. Previous vaginal delivery, lower maternal age, lower neonatal birthweight are associated with successful vaginal birth after caesarean section. Successful VBAC rate decreases with recurrent indications such as CPD and bad obstetric history. Complications such as uterine rupture, haemorrhage and infections may occur.

Key Words

Age, Birthweight, Indications

The Clinical Utility of Typhidot in the Diagnosis Of Typhoid Fever

Priya.P, Anila Mathews

3rd Year, MBBS; PSG, Coimbatore
Contact Info: priya.hoc@gmail.com

Introduction

Typhoid fever is a systemic illness with significant morbidity and mortality. Blood culture and widal test are routine investigations for diagnosis of typhoid fever. But blood culture is expensive and time consuming, Widal test is also inaccurate, non-specific and of limited diagnostic value, hence there is a need for rapid diagnostic test. The objective of our study was to evaluate typhidot test and compare the sensitivity and specificity with blood culture and Widal test and to correlate it clinically.

Materials and Methods



The Institutional Ethical Clearance was obtained and the study was carried out for 2 months on samples that came to our lab with history of typhoid fever or PUO. The typhi dot is a dot ELISA for detecting IgM and IgG antibodies. The strips are incubated in diluted serum for twenty minutes; washed and pre-diluted antihuman IgM and IgG globulins are added in respective wells. After 15 minutes, they are washed and colour developing substrate was added and results were read after incubation for 15 minutes. Positive and negative controls were included in all runs. IgM alone positive-acute typhoid fever, IgG positive – previous infection or relapse. Blood culture and Widal were done according to WHO guidelines and the results were compared.

Results

Of the 81 samples, 45 were positive for Salmonella typhi, 4 were positive for Salmonella paratyphi A and 32 were negative for typhoid. Sensitivity and specificity for typhi dot was 100% and 63% respectively.

Conclusions

Blood culture continues to be the gold standard. Typhi dot might be useful where blood culture is not available and since it's inexpensive, rapid and highly sensitive it can be used in all labs to help the clinician decide the treatment earlier which could then be confirmed by blood culture reports.

Key Words

Utility of Typhidot

Norbuprenorphine (a Metabolite) Mediates the Marked Anti-Nociceptive Effect of Oral Buprenorphine in Rats

Priyadarshi Gupta, Ashish K. Rehni, Thakur Gurjeet Singh and Sandeep Arora

4th year, B. Pharmacy, Chitkara College of Pharmacy, Chandigarh-Patiala National Highway, Rajpura- 140401, Patiala, Punjab, India
Contact Info: priyadarshi26888@gmail.com

Introduction

Buprenorphin, a synthetic opioid is a well known drug and exerts a potent analgesic effect and is used for the treatment of pain. However, this drug has not been evaluated for oral efficacy due concerns about its high first pass metabolism. Therefore, the present study was designed to compare the anti-nociceptive efficacy of orally as well as systemically delivered buprenorphine and nor-buprenorphine in rats.

Materials and Methods

Nociceptive threshold was measured in the terms of tail flick test and Eddy's hot plate test results. Experimental protocol is as under: Group I received oral doses of buprenorphine; Group II received oral doses of nor-buprenorphine; Group III received intra-peritoneal doses of buprenorphine; Group IV received intra-peritoneal doses of nor-buprenorphine

Results

Prior administration of buprenorphine delivered by both oral as well as intra-peritoneal routes exerted a marked and dose dependent anti-nociceptive effect in rat. Similarly, prior injection of nor-buprenorphine delivered by both oral as well as

intra-peritoneal routes exerted a marked and dose dependent anti-nociceptive effect in rat. Moreover, the magnitude of anti-nociceptive effect of buprenorphine and nor-buprenorphine was comparable. However, the duration of effect of nor-buprenorphine was significantly higher than that of buprenorphine. The results indicate that nor-buprenorphine (the principal hepatic metabolite of buprenorphine) exert a potent anti-nociceptive effect on rats and that too with increased intensity as well as duration.

Conclusions

Therefore, it may be suggested that nor-buprenorphine is responsible for the unexpected oral efficacy of buprenorphine.

Key Words

Buprenorphine, Norbuprenorphine, Anti-nociception

Prevalence of Atypical E.coli Causing Urinary Tract Infection in a Tertiary Care Hospital

Radha.T.R, M.Jeya

2nd year, MBBS; CHRI, Chennai.
Contact Info: trradha3@gmail.com

Introduction

Urinary Tract Infection (UTI) is among the most common bacterial infection that leads patients to seek medical care. It has been estimated that more than 6 million out-patient visits and 3 lakh hospitalisations are due to UTI. Escherichia coli is by far the most frequent cause of uncomplicated community acquired UTI. The prevalence of atypical E.coli (non lactose fermenting) has been reported from diarrhoeal cases. We would like to report the prevalence and susceptibility pattern of atypical E.coli strains producing non lactose fermenting colonies on MacConkey agar. It has similar biochemical reactions like lactose fermenting E.coli.

Materials and Methods

The study was conducted in a 700 bedded tertiary care hospital in Chennai for the past 14 months from January 2009 to February 2010. 1440 urine samples were cultured on MacConkey agar & blood agar plates. Typical & atypical E.coli strains were identified by colony morphology & biochemical reactions as mentioned in diagnostic microbiology.

Antibiotic sensitivity test was carried out for the isolated colonies by Kirby-bauer disc diffusion method. The following antimicrobial discs were tested: Norfloxacin, Gentamycin, Cefazolin, Ampicillin, Ofloxacin, Ciprofloxacin, Netilmycin, Nitrofurantoin, Cefperazone-sulbactam, Piperacillin-tazobactam, Amikacin, Cefepime, Cephotaxime, Imipenem, Meropenem.

Results

1440 urine samples were processed, 430 samples(30%) yielded significant growth of Lf E.coli, 136 samples(9%) yielded significant growth of Nlf E.coli strains. The Nlf E.coli infection is more prevalent in adults(93%) than paediatric age(7%) group. Susceptibility pattern of Nlf E.coli strains are as follows. They are highly sensitive to Nitrofurantoin(84%), Amikacin(79%), Imipenem(77%), Piperacillin-tazobactam(77%), and Netilmycin(73%). They are highly resistant to Ampicillin(89%), Cefepime(86%), Ofloxacin(85%), Ceftriaxone(81%), Ciprofloxacin(79%) and Ceftazidime(59%). When compared with Lf E.coli, the Nlf E.coli is highly susceptible to



Nitrofurantoin and highly resistant to 3rd generation Cephalosporin group of drugs such as Cefipime, Ceftriaxone as well as fluoroquinolone, Ciprofloxacin.

Conclusions

The prevalence of Nif E.coli causing UTI is 9%. Its susceptibility pattern differs from that of Lf E.coli.

Key Words

nif E.coli, Prevalence, Sensitivity

Knowledge, Attitude, Practices Of Breastfeeding Among Mothers Attending Asram, Eluru

Radhika Malireddy

3rd Year, MBBS; ASRAM, Eluru, A.P

Contact Info: malireddyradhika@yahoo.com

Introduction

Breastfeeding is the infant's passport to life. To improve breastfeeding rate, various factors affecting breastfeeding are to be studied in detail. In Eluru and surrounding places, literacy and socio-economic status have had an impact on traditionally based infant feeding and colostrum feeding. Expressing breast milk allows working women to be away intermittently from their infants while continuing to breastfeed. The objective of this study was to evaluate practice, knowledge, attitude to breastfeeding and to assess the effect of literacy rate on colostrum feeding, expression and storage of breast milk.

Materials and Methods

A study was carried out from July 15, 2009 to October 15, 2009. A total of 214 mothers with children aged below 2 years in and around Eluru were selected and interviewed. Information regarding mother's demographic status, knowledge, attitude towards breastfeeding was noted down. Microsoft Office Excel 2003 was used for statistical analysis.

Results

Out of 214 mothers interviewed, full breastfeeding was reported by 57.2% for a period of 6-12 months. Illiterate mothers were more likely to give exclusive breastfeeding. Colostrum was discarded by 11.81% of mothers of which illiterates account to 25.71%, and 5.33% were literates. Only 1.6% of mothers had an idea about expression and storage of breast milk and women who had caesarean section were more likely not to initiate breastfeeding within 12hrs and practice full breastfeeding compared to those who had vaginal delivery. All the 214 women had positive attitude that breastfeeding is convenient.

Conclusions

This study showed that a high proportion of women continued breastfeeding for more than 6 months. However illiterate mothers were less likely to give colostrums, poor knowledge was seen in expression and storage of breast milk. It is speculated that increasing literacy rate, adopting facilitatory measures in hospitals could increase colostrum feeding rate and breastfeeding rate.

Key Words

Literacy Rate, Colostrum Feeding

Trends of Malaria in Davangere district: A Retrospective Study

Rakshit Aggarwal, Nikitha B Mallya, Pradyumna Agasthi

House Surgeon, MBBS; JIMMC, Davangere

Contact Info: aggarwal.rak@gmail.com

Introduction

Malaria is a serious health problem and a major communicable disease in Karnataka.

Every Malarious area in the world has its own particular Malaria ecology depending on its vectors, parasites, vegetation, host population and a variety of other factors. By analysis of the relationship between past climatic changes and Malaria, it is possible to begin to anticipate what effect future climatic changes might have on Malaria in Davangere district.

Materials and Methods

The annual and monthly data (ABER, No. of Positive cases, SPR, Pf% etc) pertaining to year 2005-07 for 6 taluks of Davangere was obtained for District Malaria office. And the data for rainfall was collected from district agriculture office.

The data was analyzed and findings are presented.

Results

Direct correlation between rainfall and no. of new Malaria cases.

Steady decrease in malaria incidence from 2005 to 2007. Substantial change in distribution of malaria cases from Channagiri (1999-01) to Harapanahalli (2005-07).

Conclusions

Since the increase in rainfall precedes increase in Malaria incidence, anti-malarial measures should be taken in advance. Further studies must be done to identify the cause for change in distribution of Malaria in Davangere district.

Key Words

Malaria, Rainfall, Davangere

Development and Validity of the 'Red Flag Developmental Screening Checklist'

Ramya Pinnamaneni, Sharmila Banerjee Mukherjee

3rd Year, MBBS; LHMC, Delhi

Contact Info: ramyadelhi@gmail.com

Introduction

A developmental screening tool for children must be accurate (sensitivity and specificity of 70%), easy to use (by untrained personnel), and language specific. In the West, developmental screening is clubbed with well-baby visits. However in India, children come to the hospital for sickness or vaccination. The aim of this pilot study was to develop an indigenous, simple developmental screening tool based on red flags for administration to Indian children at routine immunization visits and to determine its validity. The questions selected were relevant to specific age-groups coming for immunization, easy for the parents to understand and for the personnel to ask.

Materials and Methods



A 44 items-checklist was designed by listing milestones based on the red flags for the age-groups 3.5-4.5 months, 9-12 months, 18-20 months and 24-26 months, in 6 domains- Gross-Motor, Fine-Motor, Language, Social, Vision, Hearing. The checklist was administered and difficulties experienced by parents in comprehension were recorded. Then the child underwent evaluation by a developmental expert that included administration of Developmental Profile II and neuro-developmental assessment. The validity of the checklist for detecting developmental delay was calculated.

Results

In total, the checklist was administered to 102 subjects. The average time taken for its administration was 2.37 minutes (SD=0.62). 32% mothers faced problems in comprehension of certain questions. The checklist was found to be a fairly valid screening tool (sensitivity 63% and specificity 87%). It was maximally valid for the age-group of 3.5-4.5 months.

Conclusions

The checklist developed is parent-report based, quick to administer, easily comprehensible, having easy scoring pattern and interpretation. The checklist can be a valid screening tool for the evaluation of development in children coming for immunization in the age-groups 3.5-4.5months and 9-12months. The ultimate goal is incorporating the administration of this checklist as a part of National Immunization Program so as to facilitate early identification and intervention in developmentally delayed children.

Key Words

Development, Delay, Screening

A Study On Compromised Respiratory Health Status Among the Coal Miners of Dhanbad District, Jharkhand, India

Rana Praween Kumar

Intern, BDS; Buddha Institute Of Dental Sciences and Hospital, Patna, Bihar

Contact Info: ranapraween_kumar@yahoo.com

Introduction

The regular exposure to coal dust cloud in and around the open coal mines causes a large number of diseases. The present study was conducted to find out the current health and socio-economic status of coal miners in comparison to residents of Dhanbad district, Jharkhand State and also their inter-relationship.

Materials and Methods

A household-based(house-to-house) survey was conducted and individuals were selected from both the areas on the basis of sub-sectors randomly. A pre-designed semi-structured questionnaire was used to collect information.

Results

Among the screened individuals, 88% were male and 12% were female and maximum(38%) were in the age group 20-<40 years. The 64% were working in exposure sites and 36% in non-exposure sites. Majority(43%) were exposed for 20 to 30 years of exposures and 53% were exposed for 9-12 hours in a day. Over all, 277(55%) were found with illness in their current

health status. The incidence of various diseases was proportionally high in coal miners as compared to the individuals residing in nearby areas.

Conclusions

The present study concludes that good proportion of individuals was found with illness in their present health status. Disease occurrence in coal mine areas needs to be observed through continued surveillance and monitoring the health status to prevent the disease in coal miners.

Key Words

Health, Coal-dust, Coal-miners

A Study Of Haematological Profile Of HIV Positive Patients

Reshmi Subramaniam, Jyoti Kini

Final Year, MBBS; KMC, Mangalore

Contact Info: drreshmis@gmail.com

Introduction

HIV/AIDS is a global pandemic. Haematological manifestations in HIV are varied and progress with the disease. Upto 80 per cent of HIV/AIDS patients develop anaemia which impairs their quality of life. The morphological type of anaemia reflects the etiology. Lymphopenia is a classical hallmark of this disease. More than 50 per cent of patients with AIDS also develop neutropenia. Low leukocyte counts predispose them to infections, increasing the demand for prophylaxis and constant monitoring of these parameters.

Materials and Methods

Sample Size -Medical Records and laboratory data of 75 HIV positive cases were analyzed for a period of two and half months. Non-random sampling was used. The records were analyzed for the following data:Haemoglobin, Haematocrit, Red Cell Indices, Total leukocyte and differential count, CD4+count, Platelet Count, Bone Marrow Indices (wherever available)

Results

Out of the 75 patients studied, 43(57.33 %) were females. Twenty(26.67%) are below age ten, 49(65.33 %) are within the age group of 21-50 years. Fifty(75%) patients had anaemia (Hemoglobin<12gm/dl). Most(58%) of the anaemic patients had microcytic hypochromic anaemia. Only four percent had a macrocytic picture. Anaemia was found to be consistently associated with leucopenia.

Anaemia was the most common haematological abnormality in patients with low CD4+ count. We observed much lower prevalence of leucopenia, lymphopenia and neutropenia compared to most studies. Only nine(12%) out of our study had leucopenia. Percentage of thrombocytopenia in our study was ten.

Conclusions

Anaemia was observed to be the most common haematological abnormality in this setting. Higher percentage of microcytic, hypochromic anaemia was observed. Positive correlation was seen between blood haemoglobin and CD4+ counts. Relatively lower prevalence of leucopenia was observed in our study as compared to other studies. High rate of HIV disease in childhood is a cause for concern.

Key Words



HIV, Haematological Parameters, Anaemia

Antimicrobial Susceptibility Profile of the Isolates in Neonatal Septicaemia

Rohit R

3rd Year, MBBS; MMC, Mysore
Contact Info: rohit1861989@gmail.com

Introduction

Neonatal sepsis is one of the important causes for neonatal deaths especially in the developing countries like India. It is estimated that 20% of neonates develop sepsis and accounts for 30-50% of mortality among sepsis developed in neonates. Neonatal mortality in India prior to the antibiotic era was about 90% but, it declined to 24-58% after antibiotics came into use.

Materials and Methods

The study was conducted on 177 cases of suspected Neonatal Septicemia. 1-2ml of blood was collected from the vein and inoculated immediately into 5ml of Brain Heart Infusion Broth. The Broth was incubated overnight & sub-cultured onto MacConkey Agar & Blood Agar medium. After overnight incubation, plates were observed for growth. If there was growth, organism was identified by standard procedure. If there was no growth the broth was incubated further and was examined daily for turbidity, whenever turbidity appeared, sub-culture was done. If no turbidity appeared, then final subculture was done after 7days of incubation & negative report was dispatched. The isolate was tested for antibiotic susceptibility using the modified Kirby-Bauer method.

Results

177 Blood samples from cases of suspected neonatal septicemia were included, of which 107(60.45%) blood samples showed growth. Incidence of early onset septicemia(58.59%) & late onset septicemia(75%). Gram Positive organisms are 57% & 43% organisms are Gram Negative. Coagulase Negative Staphylococci are the major causative organisms(47.6%). 30% of Staphylococcus aureus strains are Methicillin resistant. Klebsiella(9.6%) are resistant to all the drugs used. ESBL producing Klebsiella(12.9%) & E.coli(16.6%).

Conclusions

In the study, 60.45% cultures yielded growth, with the prevalence of 57% Gram positive organisms and 43% Gram negative organisms. Most of them were found to be sensitive to Amikacin, Ciprofloxacin. Resistant strains like MRSA was detected 3 (30%), ESBL in Klebsiella 4 (12.8%) & E.coli 1 (16.6%).

Key Words

Neonatal Septicemia, Antibiotic Susceptibility

Stress Status of Children with Idiopathic Nephrotic Syndrome

Ronak R. Mankodi, Dr. Ananf Dayama, Dr.(Mrs.) Royana Singh, Dr. Surendra Mishra

2nd year, MBBS; IMS, BHU, Varansi
Contact Info: normam01@gmail.com

Introduction

Nephrotic syndrome is one of the most common renal diseases in children, characterized by massive proteinuria. It has been documented that aberrant generation of reactive oxygen species(ROS) play an essential role in the mechanism of experimental models of immune and non-immune glomerular injury; mainly, uncontrolled, excessive production of Reactive Oxygen Species (ROS), which is primarily responsible for glomerular membrane damage. The metabolite of ROS and antioxidants provides indirect evidence of ROS reaction. The present study was undertaken to determine ROS metabolites and antioxidants and to evaluate the variation in the level of these parameters among different stages of disease.

Materials and Methods

87 children with INS admitted to pediatrics ward or in regular follow up in the pediatrics clinic of IMS, BHU were randomly selected. Another 10 cases, who had INS in the past and were off therapy, long term remission for more than 6 months, were included in the study. Age and sex matched 15 healthy subjects were taken as controls. Plasma MDA and Superoxide dismutase was estimated. Protein carbonyl, nitrite and ascorbic acid were analyzed. Plasma selenium, copper and zinc concentrations were estimated by atomic absorption spectrophotometry.

Results

It was observed that plasma MDA($p < 0.001$) and serum nitrite($p = 0.005$) were significantly higher. The MDA and copper levels showed a significant decrease in remission and LTR group of the disease when compared with ANS. Selenium level were significantly higher in LTR group as compare to ANS($p = 0.034$). Plasma selenium level was significantly lower in remission when compared with control($p = 0.049$).

Conclusions

Increased plasma levels of MDA and copper indicate the possible role of free-radical injury in idiopathic nephrotic syndrome pathogenesis. The decreased levels of selenium during ANS show its antioxidant role and may serve as footprint of oxidative damage in this condition

Key Words

Nephrotic Proteinuria, Antioxidants

Cost of Treatment of Diabetes in Kadaperikuppam

S.Pushkala

4th year, Jawaharlal Institute of Post-graduate Medical Education and Research (JIPMER), Pondicherry.
Contact Info: subhashree_surianarayanan@rediffmail.com

Introduction

Cost is a confounding factor in treatment and compliance of every disease more so, for a chronic disease like diabetes. The prevalence of diabetes is also increasing rapidly and the consideration about the financial resources spent will help to restructure our patient care proportionally.

Materials and Methods

A prevalence-based 'Cost-of-Illness' study for diabetes care was conducted in a village Kadaperikuppam, Tamil Nadu, from July to August 2009. A pre-tested questionnaire was administered to collect the data from 37 persons with diabetes among the



324 houses surveyed. Their monthly expenses for the treatment of diabetes were collected and analyzed.

Results

The monthly mean indirect and direct cost for each person with diabetes was estimated to be Rs. 2200.6/- and Rs. 1403.65/- respectively. Wages lost due to hospital consultation (45%) accounts for the largest share of indirect cost. Medicines (46%) contribute largely to direct cost. Cost of secondary and tertiary prevention was Rs.3306.95/- and Rs.3666.66/- per person for a month respectively.

Comparing cost with family income, it was found that each family is spending 38.63% of total family income on diabetes care.

Conclusions

This study concluded that substantial expenditure is incurred by people with diabetes. Large scale and cost-effective prevention programs need to be initiated to maximize health gains and to reverse the advance of this epidemic. Second, as the indirect cost exceeds direct cost it is an indication that the health services need to be brought nearer to the consumers. Third, expense of tertiary prevention (one hospital admission for complication) exceeds the monthly expense for secondary prevention (treatment of uncomplicated diabetes) which implies cost increases as the level of prevention increases. Since the amount spent on food is not analyzed, concept of Catastrophic Medical Expenditure (CME) could not be arrived at.

Key Words

Diabetes, Cost of Treatment, Prevention

Profile of Children Infected and Affected by HIV/AIDS

Sahana S.R., Balu P.S., Sandeep R., Sujith, Shruti Manvi

Intern, MBBS; JJM Medical College, Davangere
Contact Info: sahana_sr@yahoo.com

Introduction

The impact of AIDS comes in different waves and children are among the last group to be affected. The epidemic in India is about twenty years old and the problems of infected and affected children will increasingly emerge as a major concern in the coming years. The current study looks at the profile of children infected and affected by HIV/AIDS accessing outreach clinical services in Southern part of India.

Materials and Methods

Information about infected and affected children was collected using a pre-structured and pre-tested questionnaire from either parent/caregiver who accompanied them to outreach clinics, after explaining the purpose of study and taking informed consent.

Results

75 children accessed services in these 3 outreach clinics, 56% of children are below 9 years of age and 98% of children are accessing education. Majority (57%) of parents had daily income of less than 1USD. 84% of children have undergone HIV testing with 30% found to be positive for HIV of which 68% of tested positive were on ART. Among the infected children, 37% had lost both their parents and 42% are living with single parent. Most of the parents / care givers have not disclosed the

HIV positive status of the child either in family or in school fearing discrimination.

Conclusions

As majority of families are earning less than a dollar, there is a need to strengthen the financial capacity of families by entrepreneurship awareness program, create community based support system to ensure access to health and nutritional services and as most of children are living without parents, there is a need to provide vocational education. Create enabling environment in the family and society to address the issues of stigma and discrimination.

Key Words

Profile, Children, HIV/AIDS

Relationship Between NGO Support and Depression in HIV/AIDS Patients on ART in New Delhi

Sahil Munjal, M.S Bhatia

Final year, MBBS; University College of Medical Sciences, New Delhi

Contact Info: sahilmunjal2006@indiatimes.com

Introduction

NGOs play a big role in the overall care of HIV/AIDS patients. They form a bridge between the government health services and the patient, providing counselling and support to cope with their illness better. They help in decreasing the burden on the government machinery and help in maintaining high follow up rates through local resources. However their role in the mental health of patients is not well explored. My objective is to find out the role of NGO's in the mental health of patients on ART in New Delhi.

Materials and Methods

Patients 14-60 years of age were interviewed from initiation till 12 months of ART in GTB hospital, New Delhi with no history of any other psychiatric illnesses. Patients were administered the Centre for Epidemiologic Studies-Depression scale. Score 16 or higher indicated depression.

Results

Of 63 patients that had not heard of NGOs, 54 were depressed (85.7%) compared to 33 of 56 that had heard but have not received any support(59%) and 7 out of 36 having received some support(19.4%) and 0 of 5 having received complete care (0%) (p<0.001). 41 Of 160(25.6%) patients surveyed received some sort of support from NGOs.

Conclusions

NGOs play an important part in the mental health of HIV/AIDS patients. The prevalence of depression is less in patients that had received some form of support from the NGOs; however, the numbers of patient receiving care is very less. Therefore NGOs should play more role in the care of patients with HIV/AIDS and more assistance should be provided to them by the government to increase their involvement in providing support to the HIV/AIDS patients.

Key Words

Depression, HIV/AIDS, NGO



Incidence of Anaemia in Teenage Group Medical Students

Sahithya Pasam, Madhuri Kondisetty

2nd Year, MBBS; Mamata Medical College, Khammam, Andhra Pradesh

Contact Info: sahithyapasam@google.com

Introduction

Anaemia is the commonest cause of morbidity globally; more so, in a developing country like India. The aim of our study is to find out incidence of anaemia in teenage group medical students.

Materials and Methods

100 medical students in teenage group are selected randomly whose history regarding socio-economic status, menstruation, diet, exercise, symptoms related to anaemia & any relevant past illness was taken. Examination was done to look for pallor & any other signs related to anaemia. Hb% estimation was done with Sahli's haemoglobinometer [by Sahli's method].

Results

Most of the medics belong to middle class [59%]. Majority of medics had hair loss [80%] & vaginal infections [56%]. Nearly 1/3rd of medics had easy fatigability, difficulty in concentration & irritability. 10% of them had breathlessness, 19% menorrhagia, 72% do some sort of physical exercise regularly. Majority of them do not consume fruits & vegetables (70%). 27% of them had past history of puberty menorrhagia. 62% of them are having pallor on examination. On Hb% estimation, 72% are anaemic:- 25% had mild anaemia, 32% had moderate anaemia, 15% had severe anaemia.

Conclusions

The cause of anaemia could be:- excessive bleeding during menstruation, changing life style & food habits like intake of fast foods, neglecting fresh fruits, vegetables & balanced diet. Most of them are having symptoms related to anaemia. So, counselling, encouraging physical exercise, introducing palatable balanced diet in the menu will help in improving the Hb% levels. Identifying students with anaemia & treating them appropriately will help them to lead a healthier life.

Key Words

Anaemia, Incidence, Sahli's Method

Poincaré Plot of Heart Rate Variability: A New Approach Towards Explaining the Cardiovascular Risk in Obesity

Sajjadh Mohamed Jawahar Ali, Dr. K. Muralikrishnan

3rd Year, MBBS; Stanley Medical College, Chennai
Contact Info: rdudes007@gmail.com

Introduction

Obesity has been shown to affect heart rate variability (HRV) and has an impact on the cardiovascular system. For example, sympathovagal imbalance in obese adults in respiratory sinus arrhythmia could provide important information about early subclinical autonomic dysfunction. However, the link between

cardiovascular dysfunction and obesity is yet to be explored completely. Moreover, most researchers have been using spectral analysis to study HRV, which is very difficult for a clinician to understand and interpret. Thus a simpler method of expression is yet to be popularized among the clinicians. The aim of the study was to investigate into the correlation between cardiovascular autonomic function and obesity using the Poincaré plot as a measure of HRV. The study also aimed at experiencing the simplicity of Poincaré plots in the assessment of HRV in obese individuals.

Materials and Methods

Twenty one obese adult males (BMI 26.84 ± 2.47 kg/m², age 25.42 ± 7.86 years) were compared with twenty nine normal subjects (25.38 ± 4.61 years) in terms of short term and long term HRV. In all participants, the anthropometric measurements (height and weight) and the blood pressure were recorded. ECG (lead II) was recorded using RMS Polyrite D hardware and analysed through Finland v1.1 software to generate Poincaré plots. The p values for the different correlations were calculated using the SPSS software.

Results

Resting heart rate ($p=0.02$), pulse pressure ($p=0.05$), SD1 ($p=0.42$) and SD2 ($p=0.49$) obtained from the Poincaré plot analysis varied significantly among the obese and the normal subjects. A significant negative correlation was observed between Body Mass Index (BMI) and HRV.

Conclusions

Obesity causes sympathovagal imbalance in young adults and this might be the probable cause for the predisposition to the cardiovascular dysfunction. The study appears to be a successful attempt to show that Poincaré plot can be easily interpreted in HRV studies.

Key Words

Poincaré Plot, Obesity, Heart Rate Variability

Gene Therapy in Cancer Treatment

Sakil Jain,

Internship, MBBS; Pt BD Sharma PGIMS, Rohtak
Contact Info: sakil_jain@yahoo.com

Introduction

The study consists of reviewing the various strategies attempted for gene therapy in cancer treatment so far. Their mode of action, potential advantages over other treatment modalities, possible adverse effects, challenges faced, technical limitations and future enhancements have been discussed. A study on different delivery systems, both viral and non-viral vectors, their advantages over one another, transfection efficiency, safety and limitations have been stated.

Materials and Methods

A detailed review of literature and case studies has been done.

Results

Although different strategies have been tried in different types of cancer with varying results, the successful ones have shown to improve local control of tumour growth in unresectable stages, remove micro metastasis present at time of surgery and enhance the efficacy of radio and chemotherapy by sensitization. p53 gene, cytokines, oncolytic viruses, bcl-2



oncogene are a few names of the successful gene transfer therapies done to suppress tumour growth in breast, ovaries, liver, lungs, thyroid, esophagus etc. Viral vectors retrovirus and adenovirus are the most extensively tried but the most suitable and efficient way of delivery would also depend on the type of tissue targeted.

Conclusions

The use of gene therapy in cancer treatment is still in its primitive stages and yet to evolve. Repair of damaged cell cycle regulatory genes currently form the major portion of gene transfer strategies used. Studies on p53 gene transfer have indicated its tremendous potential in this field. An effective delivery system that would fulfill all the criteria and will stabilize transducer and express an inserted gene into the target tissue efficiently has not yet been established.

Key Words

Gene Therapy, Cancer

operant conditioning(modeling) to reinforce positive behaviors in these children. The children who were more hygienic enjoyed better psychological health and self-esteem. Girls were more hygienic and psychologically healthy than boys. Boys were more willing to join their parents back. More girls wanted to take up higher education than boys.

Key Words

Psychological Health, Self-esteem, Juvenile Delinquency.

Psychosocial Profile of Inmates in the Juvenile Homes of Mysore

Samarth Suresh Chittargi, M A Khan, A A Paulose, S Gangadhara, S Lakshmi, G Sharma, A Hegde, A Subash, H B Shivalingegowda

Intern, MBBS; MMCRI, Mysore
Contact Info: samarth.mmc@gmail.com

Awareness and Psychological Impact of Acne Among Adolescent Students

Samundeeswari.S, Damodaran.G

3rd year, MBBS; Shri Lakshmi Narayana Institute Of Medical Sciences, Puducherry
Contact Info: shreesamu@gmail.com

Introduction

A "Delinquent" refers to a child who has been neglected and abandoned by parents and who indulges in wrongful activities. Juvenile delinquency is a social problem worldwide of which less is acknowledged and much less is understood. This study examined the sociodemographic, psychological and self-esteem issues among the inmates of juvenile homes.

Materials and Methods

A structured questionnaire was used to interview 129 juveniles residing in the two juvenile homes of Mysore. Self-esteem and psychological health of the juveniles were scored using Rosenberg's self-esteem scale and general psychological well-being scale respectively. Personal hygiene was scored using a validated scale. Data was analyzed using SPSS statistical software version 17.

Results

Majority of the inmates(90%) were in the age group of 7-16yrs. The duration since admission positively correlated with the psychological well-being score($r=0.184$, $p=0.037$) and personal hygiene score($r=0.254$, $p=0.004$). Rosenberg self-esteem score($r=0.228$, $p=0.01$) and psychological well-being score($r=0.204$, $p=0.02$) also correlated positively with personal hygiene score. Girls had higher psychological well-being score ($p=0.016$) and personal hygiene score($p=0.001$). Interestingly, boys wanted to join parents back more than girls($p<0.05$). Girls wanted to take up higher education more than boys($p<0.05$). 24%(39) had movie actors as their role models and 36%(46) of them watch TV regularly.

Conclusions

Our study concluded that the psychological health and personal hygiene of the children improved with the duration of stay at the juvenile home. Film stars and television have maximum impact on them implying these could be utilized as modes of

Introduction

Acne vulgaris is a common skin disease which usually affects the adolescents. Even though it seems to be a simple problem, it can cause significant impact in the patient's psychosocial settings and academic performance. To find out the awareness about acne and its causes among 14-19 year students and the various psychosocial problems associated with it.

Materials and Methods

After getting approval from local ethical committee and the educational authorities, a cross sectional survey was conducted among 150 students of age group 14-19 years from various schools and colleges in Puducherry. A questionnaire in objective form was used to collect the data.

Results

Out of the 150 participants, 24.67% were males and 75.33% were females. The different causes for acne suggested were dandruff(27.33%), menstruation(57.33%), hormonal imbalance(37.33%), examinations(3.33%) and hereditary causes(7.33%). The intake of sweets and oily foods were suggested as a cause for exacerbation of acne by 87.33% of the students. The aggravating factors of acne pointed out were manipulating the pimple(60%), application of oily creams(17.33%) and facial massage(8%). Nearly 51.33% felt that psychological stress is associated with acne. The various psychosocial problems faced by them were low confidence (16%), sleep deprivation(6%), wasting their time thinking about getting rid of acne(76.6%), depression(14.67%), embarrassment(7.33%) and withholding themselves from social gatherings(7%) which all indirectly affected their academic performance. About 78% of the subjects felt that taking medical opinion is better than self treatment. Overall assessment shows that none were well aware, 56.67% were adequately aware and 43.33% were inadequately aware.

Conclusions

The study showed that majority of the students had adequate awareness regarding acne. As good awareness is very important for avoidance of post acne scars and further psychosocial problems, school based health education programmes can be conducted in this regard.

Key Words

Acne, Adolescents, Awareness



In-Hospital Resuscitation Awareness and Attitude Towards CPR: Next is What?

Satish Mohanty, Saneesh P J, Ambareesha M

Final Year, MBBS; KMC, Mangalore
Contact Info: satishmohanty@gmail.com

Introduction

We have always known that cardiopulmonary resuscitation (CPR) is not a single skill but a series of assessments and interventions. We conducted a survey among the practising doctors, interns doing MBBS course as well as nursing staff in an effort to study the awareness and attitude regarding the CPR.

Materials and Methods

We administered a written questionnaire regarding cardiopulmonary resuscitation and the present guidelines. 191 nursing staff and 55 interns participated in the survey. The responses were analysed separately in each group.

Results

Only 59% of nurses had experience with CPR during their duty and only 9% had valid Basic Life Support Provider Certificates, though 18% had attended lectures on CPR. Among interns participated in the survey, none of them ever got involved in CPR and no one had BLS provider certificate. The survey reports show that the interns have better knowledge regarding the methods and techniques of CPR as they have read about it in their curriculum, or as a preparation for an entrance exam or self interest etc. The nurses on the other hand haven't answered much, but they have been exposed to CPR cases more than the interns.

Conclusions

Basic life support should be given more importance in the medical and paramedical curriculum. In addition to giving lectures, hands-on training can improve the skills and the outcome of resuscitation. We suggest to make BLS Provider Course certification mandatory to all healthcare professionals and to have periodic refresher courses so as to keep them abreast of the latest CPR guidelines.

Key Words

CPR, Basic Life Support, Resuscitation

To Compare the Study of Institutional Deliveries in the Year 2007-08 and 2008-09 in State of Rajasthan

Saumya Agarwal

3rd year, MBBS; Dr. D. Y. Patil Medical College, Pimpri, Pune
Contact Info: saumyatheeternal@gmail.com

Introduction

National Rural Health Mission(NRHM) is an evidence-based programme. NRHM is a national effort at ensuring effective health care through a range of interventions at individual, household, community and most critically at the health system. Under NRHM programme we will study Janani Suraksha Yojna

(JSY) carried out in Rajasthan.

Materials and Methods

Government of Rajasthan has appointed ASHA(Accredited Social Health Activist) in every village who ensures early registration of pregnant woman and three institutional Antenatal Care check ups, two doses of Tetanus Toxoid vaccine and hundred tablets of Iron-Folic acid to each pregnant woman. Also, she promotes institutional delivery and for doing this, the government provides referral transport facility from the home of beneficiary to the health care system. ASHA also ensures five Post Natal check ups and Immunisation of the child. The financial scale of assistance under the scheme is as follows:

For rural area :

Mother's package 1400/-, ASHA package 200+300+100=600/- (200-ANC check up, 300-Referral transport, 100-PNC check up), Total Rs.2000/-

For urban area: Mother's package 1000/-, ASHA package 200/-, Total Rs.1200/-

Results

Comparative study of institutional delivery in the year 2007-08 and 2008-09 in the state of Rajasthan.

Statement showing progress of JSY beneficiaries in state of Rajasthan:

Total ANC Registration-12,78,503

Beneficiaries 2007-08- 4,68,886

Beneficiaries 2008-09- 598772

Percentage- 27.70

Conclusions

This programme has encouraged Institutional Delivery as a result-

- 1) MMR has decreased.
- 2) IMR has decreased.

Key Words

Janani Suraksha Yojna

Analysis of Various Presentations of Abdominal Tuberculosis in Surgery and Evaluation of Improvement in Quality of Life of Patients After Treatment

Saurabh Deshpande, Girish Bakhshi

3rd Year, MBBS, GMC, Mumbai
Contact Info: sau_thecoolest@yahoo.com

Introduction

Abdominal tuberculosis presents with non-specific clinical and radiological findings mimicking several diseases. Thus it takes a long time to get accurate diagnosis. It has a profound negative impact on the quality of life of the patients. So we have planned to evaluate its various clinical presentations and the improvement in quality of life after the various treatment modalities.

Materials and Methods

Patients admitted in surgery ward were divided in two groups on the basis of their management protocols-surgical and conservative. The symptoms, signs, laboratory investigations, diagnostic techniques and treatment were evaluated and the quality of life scores based on the standard questionnaire were



obtained. Patients were evaluated after 2 months post-treatment on the basis of quality of life index. Pre-operative and post-operative scores were compared by paired t-test. Unpaired t-test was applied to compare the improvements in QoL of the two groups.

Results

50 patients were included in this study (mean age-31years), 22 females(mean age-28.04 years) and 28 males(mean age-34.60 years). Most common clinical symptoms were pain(100%), weight loss(90%) and vomiting(86%), while the signs were- anaemia(92%), lymphadenopathy(64%) and ascites(48%). Various investigations done showed that post-operative histopathological report, CT scan, BMFT (100%) were the most accurate in diagnosis. Patients in both the groups showed significant improvement in QoL. We found statistically significant difference between the QoL ($p < 0.0001$) of the two groups. Thus in our study, patients treated with surgery have showed a better response.

Conclusions

Thus, abdominal tuberculosis is a disease with nonspecific manifestations and patients presenting with symptoms like abdominal pain, fever, anorexia, vomiting should be viewed with suspicion by a clinician. CT scan and histopathological examination maximally contribute to the diagnosis. Choice of treatment is also important and proper management leads to an improvement in the quality of life of the patients.

Key Words

Quality of Life, Abdominal Tuberculosis, Surgery

**Morbidity Profile at Rajiv Gandhi
Institute of Medical Sciences, Kadapa,
Andhra Pradesh.**

Seran Kumar Reddy.M, Dr.K.Chandra Sekhar, Dr.Suresh Kumbhar, P.Rangaswamy, Dr.Devidas Tondare, Dr.C.Balakrishna

*3rd year, MBBS; RIMS, Kadapa, Andhra Pradesh
Contact Info: seranreddy.m@gmail.com*

Introduction

Rajiv Gandhi Institute of Medical Sciences is one of the pioneering tertiary care centre, located 5km away from the Kadapa city and is has a bed strength of 750. India is experiencing a rapid epidemiological transition with a large and rising burden of chronic diseases which were estimated to account for 53 percent of all deaths and 44 percent of Disability Adjusted Life years lost in 2005. Institute Objectives: 1. To know the disease trend of Non communicable diseases. 2. To find the Vaccine preventable disease tendency in Our institute.

Materials and Methods

Methodology: The present Hospital-based Descriptive study was conducted during March to August 2009. Study setting is Rajiv Gandhi Institute of Medical Sciences. With the help of MRD Section, all patients attended to the out patient departments were verified retrospectively from the records and all the required information noted in the prescribed format. Diagnosis of all the diseases were made by the Institute Consultants of respective Departments.

Results

Total number of Out-patients during the year 2008 was 3, 32,831; of which arthritis accounts for 7%, Eye Problems for

1.54%, Hypertension for 1.05%, Diabetes Mellitus individuals were 0.49% and Paralysis patients were about 0.07%. During the year 2008, all type of vaccine preventable diseases were noted (1723 cases) in our institute, of which, the highest number was reported in Tuberculosis (all age groups) 1717, Measles 2 (0.12%), Polio 2 (0.12%) and no cases were reported from Tetanus, Whooping cough and Diphtheria.

Conclusions

Based on our hospital study, NCDs & vaccine-preventable diseases [Except Polio] are showing decremental trend.

Key Words

Out Patient Departments, Some Of The Non-Communicable Diseases, Vaccine-Preventable Diseases

**Survey of Malnutrition Among
Children in a Slum Area of Mumbai**

Shadab.S.Reshamwala, Asmita.S.Patne

*3rd Year, MBBS; GMC, MUMBAI
Contact Info: shadgr8@yahoo.com*

Introduction

The WHO defines malnutrition as cellular imbalance between supply of nutrients and energy and the body's demand for them to ensure growth, maintenance, and specific functions. The hallmark of this study was to evaluate the prevalent percentage of malnutrition among the urban slum children of Mumbai and to study its correlation with associated factors like literacy of parents, socio-economic status, family size, birth interval, history of infections, immunization, smoking/ tobacco/ alcohol habits of parents.

Materials and Methods

Duration of this cross sectional study: 2 months. Sample size= 100 children in 2-12 years age group. Site of Study: Madanpura, Mumbai. Verbal interview of parents and printed questionnaires used after acquiring their informed consent. Anthropometric measurements have been taken. Grading Criteria for malnutrition: Harvard's Classification (Weight and Age correlation). All the observations have been analyzed statistically using Pearson's Chi-square test.

Results

Prevalence of malnutrition was found to be a striking 45%. Malnutrition had a direct relationship with Male gender(60%), illiteracy of parents(64.4%), low family income <1000rs/month(80%), large family size >5 members(64.4%), short birth intervals 0-2yrs(60%), bad habits of parents(68.8%) and lack of complete immunization(50%).

Conclusions

45% of urban slum children were found to be malnourished. Various simple measures like food fortification, sprinkles in-home fortification and providing education and employment opportunities in the rural zones to minimize urban migration can help overcome the problem of malnutrition. Similar researches should be carried out on a large scale by the Governments in order to tackle this slow poison of malnutrition which is affecting the society from its grass root levels.

Key Words

WHO, Malnutrition, Harvard's Classification



Gender classification based on odontometry of maxillary teeth

Shadvala Reddy Vedre, Spurthy N, Joseph Kamalesh

3rd year, MBBS; Mamata Medical College, Khammam, AP
Contact Info: shadvala_vedre@yahoo.co.in

Introduction

The dentition is considered as a useful adjunct in skeletal sex determination, particularly since teeth are resistant to postmortem destruction and fragmentation. Sex dimorphism in tooth size and the accuracy of odontometric sex prediction, is found to vary in different regions and researchers have advocated the need for population-specific data. The aim of the study was to formulate a protocol for odontometric sex prediction for a region in Andhra Pradesh.

Materials and Methods

The study population consisted of 100 college students (50 male and 50 female) in the age group of 17 to 25 years. A dental cast of the maxillary teeth was obtained using the alginate-plaster of paris technique. All the maxillary teeth except the third molars were measured for mesiodistal length, buccolingual length, crown height and inter-teeth distance between all corresponding teeth using a sliding vernier caliper. The measurements thus obtained were tabulated and analysed by SPSS software version 17.

Results

The second molar showed the highest sexual dimorphism followed by the canines and the lateral incisors. For each of these teeth, an ROC curve was plotted and cutoff values for sex prediction based on each measurement were obtained. The inter-teeth distance between the canines and the first molars showed a statistically significant variation between the sexes. Linear discriminant analysis was done using crown length of canine, mesiodistal length of second molar and inter first molar distance and a classification rate of 86% was achieved. When the buccolingual length of the lateral incisor was added, the classification rate dropped to 79%.

Conclusions

Odontometric gender classification guidelines were successfully formulated for a region of Andhra Pradesh based on certain measurements of the maxillary teeth. This data would be of significant use in the forensic identification of skeletal remains.

Key Words

Odontometry, Gender Classification, Maxillary Teeth

A Study of Proportion and Pattern of Smoking in the Medical Colleges of Delhi

Shina Goyal, Dr. Anil Gurtoo, Dr. Amit Kumar

Final Year, MBBS; LHMC, New Delhi
Contact Info: shina.goyal@gmail.com

Introduction

Smoking constitutes major public health problem worldwide.

Medical community can be instrumental in helping people to quit smoking. Medicos who smoke may be less effective in convincing the patients to quit smoking than non-smoker medicos. Thus, this study was undertaken to determine the magnitude, pattern and attitude of medical community towards smoking.

Materials and Methods

400 randomly selected medicos from medical colleges of Delhi were administered an anonymised, structured, self-administered questionnaire. The available data was then analyzed employing appropriate statistical methods like the Chi-square test and a p value of <0.05 was considered significant.

Results

23.5% of medicos were found to be smokers. Prevalence was 20.6% in Undergraduates, 24% in Post-graduates and 31% in Senior Residents and Consultants. The average initiation age was 19-22 years and most of them were smoking <10 cigarettes/per day. 65% had attempted to quit in the past. 48% of smokers had health problems in contrast to 18% non-smokers. According to Nicotine dependence score, 65% had low addiction while 2% had high addiction score. 83% of non-smokers were strongly counseling their patients to quit smoking while 71% of smokers did so. 86% of non-smokers wanted strict anti-smoking laws.

Conclusions

Smoking was found to be quite common amongst medicos with increasing prevalence with age and seniority probably because of more work pressure.

The nicotine dependence score was low because the doctors are aware about the associated health problems and their social responsibilities. The main cause of failure to quit was found to be stress. It was also observed that anti-smoking education was more aggressively pursued by non-smoker medicos while smokers looked at anti-smoking laws as an infringement on their rights and liberties.

Key Words

Smoking, Medicos, Common

A Novel Use of Toluidine Blue in Diagnosing Malaria

Shravan Nadkarni, Dr. B. R. Yelikar

Intern, MBBS; Shri. B. M. Patil Medical college, Bijapur
Contact Info: docshravan@gmail.com

Introduction

India is known to be endemic for malaria, especially in the rural areas where sophisticated and newer diagnostic procedures fail to reach. Due to increase in number of cases in the rural part of India, the need for economical and efficient methods has emerged. Moreover, identification of the malarial parasite in the peripheral smear is still the gold standard for diagnosing malaria. In this project, the utility and effectiveness of Toluidine Blue stain in diagnosing Malaria is assessed. Related parameters like cost- effectiveness, efficiency, ease of the staining procedure and utility in mass screening of samples are compared.

Materials and Methods

Blood samples procured from the hospital with clinical



suspicion of Malaria were used to prepare a blood smear & stained using Leishmann stain & Toluidine Blue stain and the results compared, sample size being 220. Statistical analysis of the results obtained was done using diagrammatic representation and appropriate statistical tests like McNemar's χ^2 test.

Results

Out of the 220 blood samples tested by the above-mentioned stains, 46 tested positive for the parasite when Leishmann stain was used & 64 with the use of toluidine blue stain, thereby detecting the false negatives given by Leishmann stain. Based on statistical tests, sensitivity of Toluidine Blue stain was 70.3%. Specificity- 99.4%, PPV- 97.8% & NPV- 89%. Accuracy was 91%.

Conclusions

Staining with Toluidine Blue is rapid & simple. It provides better visualization of the ring forms and gametocytes of the parasite. The procedure of staining a blood smear for detection of parasites with toluidine blue is simpler than the complex procedure with Leishmann stain. This method is better than Leishmann stain in terms of cost-effectiveness. Mass screening of samples can be best done with this method as it involves an easy procedure not needing highly skilled labour.

Key Words

Malaria, Toluidine Blue, Detection

Testing for Tattoo Pigment in the Regional Lymph Nodes as a Forensic Marker of Identification: A Descriptive Study

Shwetha M

3rd Year, MBBS; Raichur Institute of Medical Sciences, Raichur
Contact Info: shwetha.mangalesh@gmail.com

Introduction

Tattoo is a deliberate ornamentation of the skin by introducing pigments under the epidermis. The importance of determining the presence of tattoo pigment in lymph nodes is to establish the identity of a person in case of crush injuries and decomposed bodies in which external tattoo cannot be seen. Researches have been carried out on tattoos related to social significance and risk-taking behavior. This work aims to study the usefulness of tattoo pigment in the regional lymph nodes of medicolegal autopsy cases having tattoos, as a forensic marker and thereby provide scientific evidence in the court of law about the identity of a person.

Materials and Methods

Materials and Methods: Lymph nodes, Formaldehyde, paraffin wax, H & E stain and microscope. Corpses with tattoos were randomly selected. The regional lymph nodes corresponding to the position of the tattoo was preserved in formaldehyde and taken for histopathological examination. The section of the lymph node was taken and stained with H & E stain and observed microscopically for pigmentation.

Results

It was observed that in 66.67% cases, which showed the tattoo mark on right upper limb had the presence of pigment in corresponding regional lymph node and 70% cases with the tattoo mark on the left upper limb showed the tattoo pigment

in the left corresponding regional lymph node. The collected data was analyzed using SPSS version 16.0.1. A $p < 0.05$ was considered to be significant.

Conclusions

The study has shown that the presence of tattoo marks is associated with pigment deposition in the regional lymph node and this relation was found to be statistically significant. Hence, the presence of tattoo pigment in the regional lymph node could be used as an additional tool to establish the identity of a person. The limitation of the work is the confirmation of tattoo pigment by chemical analysis.

Key Words

Tattoos, Lymph Nodes, Pigments

Comparison of Lipid Peroxidation and Lipid Hydroperoxides with That of Magnesium and Iron Levels in Type II Diabetic Patients with Severity of Complications

Siraj Fathima.T., Dr. V.N.Janagarajan

3rd Year, MBBS; IRT PMC, Perundurai
Contact Info: sfsirajtharvees@gmail.com

Introduction

Oxidative stress mediated cell damage occurring through reactive oxygen species (ROS) has been implicated in the pathogenesis and progression of a multiplicity of disorders such as cardiovascular disease, insulin resistance, insulin secretion, type II diabetes mellitus, late diabetic end-organ complication, skin ailments, neurologic disease, renal disease and liver disease. The study of trace elements is gaining importance in recent times. The aim of the study is to observe whether plasma Mg concentration has a role in complications associated with type II diabetes and its relationship with lipid peroxidation and protein carbonyl formation.

Materials and Methods

The studies were made on fasting blood samples obtained from the following subjects: 100 adult patients diagnosed as diabetes mellitus (NIDDM) and attending regularly as out patients at Perundurai Medical College and Hospitals, Perundurai-638053 who were enlisted for the study and from healthy volunteers
Fine chemicals and reagents used: Heparin, Thiobarbituric Acid, Trichloroacetic Acid, Xylenol Orange, Sorbitol, Ammonium Ferrous Sulphate, Sulphuric Acid, Hydrochloric Acid, Malonaldehyde.

Methods used: The plasma levels of glucose, urea and creatinine and total cholesterol were measured by routine lab methods.

Magnesium: Xylidyl blue as described by Tietz (1995), Endres and Rude (1999).

Lipid Hydroperoxide: Fox Reagent II described by Zhen-Yue-Jiang et al (1990).

Plasma Total Cholesterol: Enzymatic method as described by Richmond (1973),

Protein carbonyl level: Backer's method described by Yan et al (1995)

Results

In our study, patients with renal and cardiovascular



complications, identified by measuring appropriate parameters, were found to have decreased plasma magnesium levels (1.54 ± 0.60). The levels of lipid peroxidation (7.45 ± 0.47 $\mu\text{moles/L}$), lipid hydroperoxides (8.45 ± 0.47 $\mu\text{moles/L}$) and protein carbonyl levels were found to be increased.

Conclusions

From the study we came to the conclusion that Mg deficiency is related with increased lipid peroxidation, lipid hydroperoxides and protein carbonyl and it has a role in complications associated with type II diabetes.

Key Words

Glucose, Lipid, Magnesium

Prevalence of the Diarrhegenic Escherichia coli with Special Emphasis on Enterohaemorrhagic Escherichia coli in Bovines from South India

Smitesh G

4th year, MBBS; Christian Medical College, Vellore
Contact Info: smiteshg@gmail.com

Introduction

Diarrhegenic Escherichia coli(DEC) is a common cause of childhood diarrhea which is a major cause of childhood morbidity and mortality(23%) in developing countries. Of six categories of DEC, Enterohaemorrhagic E.coli (EHEC) represents the only pathogenic group that has definite zoonotic origin, has been firmly associated with bloody diarrhea and hemolytic uremic syndrome. In India, little is known about epidemiology of DEC. In this study, we report the prevalence of DEC with special emphasis on EHEC in bovines from south India.

Materials and Methods

50 bovine diarrheal samples were used for this study. DNA was extracted from these samples and was subjected to Multiplex polymerase chain reaction(PCR) for detecting virulence genes from Enterohaemorrhagic(stx1, stx2, and eae), Enteropathogenic(eae and bfp), Enterotoxigenic(stII and It), Enteroinvasive(virF and ipaH), Enterotoxigenic(aaflII) and Diffuse Adherent(daaE) E. coli in stool samples. EHEC strains, if isolated would be subjected to colony multiplex PCR to detect the presence of AB5 toxin, subtilase cytotoxin by amplifying subA gene, using previously published primers.

Results

Out of the total 50 samples used, one had atypical EPEC(eae-positive stx-negative E. coli). Thus, indicating the presence of atypical EPEC in bovine samples with a prevalence rate of 2%. Contrary to our expectation there were no EHEC strains or other types of DEC reported. This could be probably due to small sample size.

Conclusions

The study reports 2% prevalence of atypical EPEC in bovine sample highlighting the possibility of cattle to human transmission. It is well documented that EPEC is known to cause infantile diarrhea. This result can be compared to 9.73% EPEC prevalence reported by Wani et al in India. This study will provide key information required for monitoring prevalence of EPEC in animals and its transmission potential, thereby helping

in prevention, early diagnosis and treatment.

Key Words

Diarrhegenic E.coli, Multiplex PCR, Bovine Sample

Fine Needle Aspiration Cytology (FNAC) of Breast Lump in Rural Women

Smyrna Martyr S, Gumballi.K.Swethadri

3rd Year, MBBS; Fr.Muller Medical College, Mangalore
Contact Info: jehovahraphsmyrna@gmail.com

Introduction

Cancer of breast is a common cause of cancer in women. As there is no exact etiology for breast cancer, early diagnosis and treatment is important in reducing the morbidity and mortality. It is important to educate the women, especially rural women living in remote villages where there is poor health care. For early diagnosis, Fine Needle Aspiration Cytology [FNAC] of breast lump is an important part of triple assessment (clinical examination, imaging and FNAC) of palpable breast lumps. The technique is relatively painless, produces a speedy result and is cheap.

Materials and Methods

This was a community-based program. House-to-house visits and Breast cancer detection and prevention camps were conducted in 5 remote villages of Mangalore taluk of Dakshina Kannada district, Karnataka. 218 Rural women were taught to do breast self-examination, out of which 2 Women with palpable breast lump underwent FNAC procedure.

Results

House-to-house visits (n=68) were less effective because most of the women were not comfortable to speak on this topic regarding their private area. But, breast cancer camps were more effective where many women (n=150) participated. Out of the 218 women, 2 women presented with palpable lumps, and FNAC was done. Both of them were diagnosed as benign tumors and were advised excision.

Conclusions

Due to lack of awareness of breast cancer and self-examination procedure, the disease is diagnosed at a very late stage. Hence, rural women need to be educated on breast cancer and breast self examination, and if the examination is done properly and regularly it may help to detect breast cancer early. The availability of the medical social workers is to be exploited for educating and disseminating the self-examination method for early detection.

Key Words

Breast Lump, Breast Self Examination, FNAC (Fine Needle Aspiration Cytology)



Determination of Lactate Dehydrogenase-1(LDH-1) Activity in Pleural Fluid by Chemical Inhibition

Soham Dasgupta, Gorachand Bhattacharya

3rd year, MBBS, Calcutta National Medical College, Kolkata
Contact Info: soham1816@yahoo.in

Introduction

Pleural effusions have classically been divided into transudates and exudates. Lactate dehydrogenase (LDH) activity of pleural effusion is used for classification of biofluids into exudates or transudates. Occasionally, pleural fluid may contain red blood cells which contain LDH-1 isoenzyme as a result of haemorrhage in nearby tissues or accidental haemolysis, causing elevation in LDH activity that can falsely classify transudates as exudates. Therefore, measurement of LDH-1 activity in crude and blood-mixed pleural fluid is of paramount importance, which is the aim of this study. This is achieved by perchlorate inhibition of other isoenzymes of LDH and by heat treatment of samples at 65°C for 1hour.

Materials and Methods

The LDH (P-L) kit and total protein estimation kit were from Crest Biosystems, Goa, India. The LDH assay was performed in Semi-automated analyzer made by Transasia.

Pleural effusions, received in the clinical biochemistry laboratory, alongwith freshly drawn blood samples, were considered for this study.

Results

The LDH activity was significantly more in exudative pleural effusions than in transudative ones. In blood-mixed pleural effusions, the LDH activity was more than in bloodless pleural effusions. In all cases, the LDH value decreased significantly after perchloric acid inhibition. All exudative pleural effusions solidified at 65°C temperature after 1hour incubation unlike transudative pleural effusions. Performing LDH activity assay with the unsolidified transudative pleural effusions, we observed that LDH activity decreased markedly in both bloodless and blood-mixed pleural effusions.

Conclusions

LDH-1 isoenzyme estimation by perchlorate inhibition may not be an appropriate strategy for classification of pleural biofluid. But the application of heat solidifies exudates, unlike transudates, irrespective of the presence or absence of blood. Therefore, the heat treatment strategy has the potential to develop into a classification tool, to distinguish between exudative and transudative pleural biofluids, which could be performed at primary health care infrastructure.

Key Words

Exudate, Transudate, Perchlorate

The Profile of Febrile Encephalopathy

Sonam Puri, Dhruva Chaudhry, Chirag Tandon

Intern, MBBS; Pt BD Sharma PGIMS, Rohtak
Contact Info: sonampuri@gmail.com

Introduction

Febrile encephalopathy (FE) is a common clinical enigma encountered in casualty services. Most of the case reports so far have targeted pediatric population or have outlined the etiologic characteristics of FE. In our study we have tried to analyze the epidemiology, etiology, clinical laboratory parameters and outcomes of patients of FE to help predict the severity of the disease in adult Indian population.

Materials and Methods

It is a prospective observational study conducted over a period of two months. Sample size was 50 patients which were divided into two groups on the basis of mortality. Individual profile of the patients was studied, the information was filled on a preformed proforma and analyzed by statistical methods like logistic regression analysis and independent sample test.

Results

In our study, the incidence of FE was 10.72%, the overall mortality was 30%. Amongst the survivors, 14% had residual defects. Epidemiologic comparison revealed that a lower age and female sex was associated with greater survival. Glasgow coma scale score of <8 at the time of presentation was a strong predictor of mortality, however an initial higher grade of fever or type of fever did not influence mortality. Laboratory data (at presentation) influencing mortality included a higher TLC, metabolic acidosis, degree of renal failure (high BUN and creatinine, high phosphorus and low calcium), liver dysfunction, CSF profile (higher protein, lower sugar, higher leucocytosis). Regarding etiology maximum patients suffered from bacterial diseases (54%) (28% - pyogenic meningitis, 12% - tubercular meningitis, 8% - enteric encephalopathy, 6% - rickettsial cause, 2% - listerial meningitis), other causes included protozoal pathogens (18%), viral (12%) and fungal (2%). Rest (14%) could not be differentiated by serology.

Conclusions

Our study highlights the importance of recognizing the signs, symptoms and laboratory data impacting mortality in patients of FE so that aggressive measures can be initiated upon recognition of these parameters. Limitations include that this was an observational study; the population size was not adequate to analyze the impact of non-bacterial and non-viral etiologies on mortality.

Key Words

Glasgow, Etiology, Mortality

Study on Inhibitory Role of Insulin of Different Origin in ADP-Induced Platelet Aggregation

Soumyajit Chatterjee, Dr. Srabani Biswas

3rd Year, MBBS; CNMC, Kolkata
Contact Info: schatterjee1988@gmail.com

Introduction

Platelet aggregation by ADP and other aggregating agonists plays an important role in thrombus formation leading to development of Acute Coronary heart disease. Platelet aggregation is inhibited by various humoral factors like insulin and prostaglandins. Insulin inhibits platelet aggregation by stimulating nitric oxide synthesis in platelets by increasing the concentration of cGMP and cAMP. The intended work envisages investigating the inhibitory role of insulin of different



origins in platelet aggregation and measuring the concentration of nitric oxide synthesized. Insulin preparations available for therapeutic uses are Porcine insulin, Bovine insulin and Human mixtard.

Materials and Methods

ADP was from Sigma and insulins were from Novo-Nordisk (human mixtard), Cadila (lentisulin CPI, Porcine), and Humalog of Eli-lilly (Insulin Lispro). Platelet aggregation and its inhibition was observed in Aggregometer. Blood samples were collected in vials containing sodium citrate as anticoagulant from healthy individuals. Platelet rich plasma was prepared and aggregation was studied by adding ADP. To determine the minimum inhibitory concentrations of these agents for the maximal inhibition of platelet aggregation, the optimal time of incubation of PRP with insulin of different origins was found; the inhibitory role of insulin from these sources was compared; and the concentration of nitric oxide synthesized was measured.

Results

On addition of ADP to PRP there was significant reduction of absorbance to the effect of $50 \pm 5\%$ ($n=50$) at 50 seconds. This was significantly prevented by human mixtard, porcine and insulin lispro, the reduction being less than 10%.

Conclusions

Due to lack of data regarding inhibition of ADP-induced platelet aggregation by insulins of different origin, the study was carried out to determine variations in the inhibitory effect of insulins on platelet aggregation. The study reveals that the actions of porcine, human mixtard and insulin lispro are similar on ADP-induced platelet aggregation though the used insulins have little variation in their amino acid sequence.

Key Words

Insulin, Platelet Inhibition

Chronic Nicotine Administration Improves Performance While Withdrawal Induces Performance Deficits in the Maze Clearance Time Task in Rats

Spurthy N, Shadvala Reddy Vedre, Joseph Kamallesh

3rd year, MBBS; Mamata Medical College, Khammam, AP
Contact Info: spurthy_89@yahoo.co.in

Introduction

Previous studies on chronic administration of nicotine in rats have shown that they increase cognitive function such as memory, spatial intelligence, attention span in rats and decreased performance on withdrawal. The aim of the present study is that, sustained levels of nicotine are required to maintain the improved performance and on withdrawal, performance decreases which is permanent.

Materials and Methods

The study was done on 14 albino rats (*Rattus norvegicus*), with control and test groups each with 7 rats. A wooden maze was used to assess its memory and spatial cognition. Memory was tested by the number of times the rat took the same path and spatial cognition by time taken to complete the maze. Both the groups were shaved and nicotine transdermal patches

administered to the test ones (10.9mg/kg/day) while micropore patches to the control group. The patches were changed every day for 7 days. From the 7th day of initiating nicotine patches, withdrawal symptoms were elicited by administering mecamlamine hydrochlorate (1mg/kg i.p) to asses nicotine addiction. Somatic signs, paw tremors, head shakes, facial tremors and abdominal constrictions were noticed. Performance was tested. The procedure was repeated for 5 days. Nicotine was readministered for further 5 days and performance assessed. A performance curve for each rat was drawn.

Results

The control group rats showed improved performance over the first 3 days, later they took constant amount of time to finish the maze. The test group rats showed improved performance over the first 5 days and completed the maze earlier than their control counter parts. On withdrawal, they took more time to complete the maze and traversed the same path more number of times. On readministration their performance was enhanced.

Conclusions

Nicotine improves cognition and enhances performance but constant levels are required to sustain it. On withdrawal the performances is hampered permanently.

Key Words

Nicotine, Spatial Cognition, Memory

Evaluation of Left Ventricular Function in Patients With Chronic Obstructive Pulmonary Disease

Sreejita Bhowmik,

Intern, MBBS; CNMC, Kolkata
Contact Info: titli_26@yahoo.co.in

Introduction

The functional abnormalities of right ventricle in chronic obstructive pulmonary disease(COPD) have been well documented. Derangement of the left ventricular(LV) function in such patients, in the absence of other cardiac disorders has not been clearly established. The aim of the study was to evaluate LV function in COPD patients.

Materials and Methods

To evaluate the LV function 30 patients(mean age:59.93±10.1yr) with COPD without additional cardiac diseases and 30 age and sex-matched healthy subjects were enrolled into the study. All patients underwent resting ECG tracing, blood pressure measurements, spirometry, standard and tissue Doppler echocardiography.

Results

The data showed that the mean value of forced expiratory volume in one second(FEV1) in the COPD group was $57.94 \pm 7.36\%$ of the predicted value. RV end – diastolic diameter and RV wall thickness were significantly larger and right ventricular systolic pressure–RVSP(38 ± 11.3 vs. 20 ± 2.6 mm Hg) significantly higher in the COPD group. The mitral inflow velocities(E/A) ratio, the ratio of peak early E-wave velocity in transmitral flow(E) to early diastolic annular velocity at septum(Ea) i.e. E/Ea and the ratio of pulmonary venous S-wave and D-wave(S/D) were significantly lower in COPD patients while the MPI was significantly higher among the



cases. IVRT was significantly longer in relation to control group (95.01 ± 6.7 vs. 79 ± 9.8). Moreover, there was a strong inverse correlation between FEV1% and IVRT ($r = -0.9535$, $p < 0.05$) and RVSP as well ($r = -0.9759$, $p < 0.05$) and a weaker but still important inverse correlation between E/A and RVSP ($r = -0.58$, $p < 0.05$).

Conclusions

We concluded that in COPD patients, LV diastolic function is significantly impaired and its magnitude is related with the severity of COPD as well as the increase in pulmonary artery pressure. Similarly, severity of COPD as also related to pulmonary artery pressure. Furthermore, the risk of association of LV diastolic dysfunction in COPD is 6 times more than that of a normal individual.

Key Words

LV Diastolic Dysfunction, COPD

Study of Platelet Count as Prognostic Indicator In Paediatric Intensive Care Patients

Sri Vidya, Manjiri P

4th year, MBBS; ASRAM, Eluru
Contact Info: vidyapetla@yahoo.com

Introduction

Background: Many clinical and laboratory-based scoring systems which are validated based on the data available at the time of admission are used to predict severity, morbidity and outcome of PICU patients. Platelet counts were found to show great variation in multiorgan failure, sepsis and septic shock which are well associated with morbidity and mortality in PICU. Platelet counts being dynamic in nature may act as good predictor as others in predicting the outcome of patients during PICU stay. Objectives: To evaluate the prognostic value of platelet count and their variations in different disease entities in PICU patients.

Materials and Methods

Study design: Prospective observational cohort analysis. Setting: Conducted in PICU of a tertiary care referral centre at a rural place Malkapuram in Eluru, Andhra Pradesh for 3 months. Patients: All the consecutively admitted patients staying for > 48 hrs in the PICU whether dead, referred to higher centre or left against medical advice are included in the study. Interventions: None

Results

In the study sample of 68 admissions with a median age of 5.6 years, an average length of stay 6.3 days and an average critical score (PRISM III) of 5, thrombocytopenia, thrombocytosis and normal platelet count were 19%, 30%, and 51% associated with a mortality of 14.2%, 23.1% and 6% ($p < 0.03$) respectively. The various disease diagnoses at the time of admission are sepsis (64.7%), neurological (29.4%), circulatory (57.3%), respiratory failure (29.4%), hepatic failure (20.6%) and renal failure (13.2%). The length of hospital stay and mortality were higher in both thrombocytopenia (7 days, 14.2%) and thrombocytosis (7.9 days, 23%) in comparison to normal platelet count (5 days, 6%). High PRISM score, septic shock, circulatory failure and abnormal platelet count were all good predictors of death in our study. Bleeding episodes, sepsis, circulatory failure, high PRISM score, arterial and central venous lines and coagulopathy were all mostly associated with

thrombocytopenia.

Conclusions

Serial platelet counts provide a universally available dynamic tool to predict outcomes besides being easy, obviating the need for complex calculation of critical scores. It can be used as a complement to scoring systems like PRISM and others. Though some associations were demonstrated, causations cannot be established by this study due to small sample size, short duration of study, non-randomization and various confounding factors.

Key Words

Platelet Count, PICU Patients

Handwriting Analysis Based Personality Profiling

Sumaiyah Sadaf, Brinda Manchireddy, Joseph Kamalesh

3rd Year, MBBS; Mamata Medical College, Khammam, AP
Contact Info: sumiaug16@yahoo.co.in

Introduction

The intent to write forms deep within the creative process of the mind and thus makes writing an expressive gesture representative of the mind behind the pen. Emotional factors dictate the form of the writing stroke. Handwriting alters along with the personality and physical changes. As personality development is largely affected by the upbringing, culture, environment etc., we are trying to analyze the personality traits and their effect on the handwriting of students with Indian upbringing.

Materials and Methods

To analyze the personality traits, the 16PF form 'A' questionnaire was administered to 200 college students (100 male and 100 female). Few of the 16 traits determined were dominance, radicalism, affectogthymia, shrewdness, high ergic tension etc. Handwriting samples of the students were taken on a plain sheet of paper. The handwriting was analyzed manually for 26 factors (eg.: pressure, 'f' balance, vertical position of 'l' dot, 'g' loops, 't' cross position etc.). The data thus obtained was subjected to statistical analysis using the SPSS program version 17.

Results

The factors of handwriting were compared to the baseline personality traits for correlations. A few of the factors which had a strong correlation were (i) expansion and ego strength ($p=0.007$), (ii) pressure and dominance ($p=0.007$), (iii) lower loop length and ego strength ($p=0.006$), (iv) pressure and strength of self sentiment ($p=0.002$) and (v) lower loop fullness and shrewdness ($p=0.004$).

Conclusions

Based on the strong correlations between handwriting analysis factors and the personality traits, we were able to devise a standard for personality profiling based on the handwriting analysis.

Key Words

Handwriting Analysis, 16PF Questionnaire, Personality Traits



Understanding the Facilitators and Barriers of Antiretroviral Adherence Among Patients Attending ART Centre, Wenlock Hospital, Mangalore

Sushil Chugh, Aravind Kumar, Navya Jaiswal, Ritu Kumari

2nd year, MBBS; KMC, Mangalore
Contact Info: c_sushil18@yahoo.com

Introduction

Individuals who demonstrate lower levels of adherence are at greater risk for increased levels of morbidity, treatment failure, and the development of drug resistant forms of HIV. There are very few studies in India which have examined the facilitators and barriers to adherence of ART. We carried this study to understand the facilitators and barriers for ART adherence and to examine the social and knowledge based factors that influence ART adherence.

Materials and Methods

At ART centre, Government Wenlock Hospital, Mangalore, 42 adult patients receiving ART were interviewed in local language with the help of semi-structured interview schedule using qualitative study design. A written informed consent was taken before undertaking interview. Data was analysed using SPSS and chi-square test.

Results

Among the subjects, 78.6% were of age group 30-45yrs. 83.3% were male and 61.9% had received only primary education. 52.4% were receiving ART for more than 3yrs. The most frequent facilitators towards adherence were positive results(91.7%), fixed routine(91.7%) and faith on medicine(91.7%), followed by improvement in quality of life(66.7%) and family support(25%). The most frequent barrier was busy schedule(83.3%), followed by transportation(50%), some kind of addiction(33.6%) and side effects(33.6%). Other barriers were forgetfulness and more number of pills.

Conclusions

Adherence rates found here were more than 85% which is very high as compared to Indian scenario where typical adherence rates are 50-75% over long period of time. Among facilitators positive results, faith on medicine and fixed routine were the main facilitators followed by improvement in quality of life and family support. Among barriers, busy schedule was the main reason for non-adherence followed by addiction and side effects. Education, income and length of time diagnosed or treated had no effect on adherence. Counseling of ART patients needs to be strengthened and ART should be made available in peripheral health centers like PHCs for better results.

Key Words

Antiretroviral Therapy(ART), Adherence, Mangalore

4D 5D Length and Sleep Pattern

Swarna Pradha.B, Mathangi.K,Valli.S, Mathangi.D.C, Shyamala.R

2nd Year, MBBS; Chettinad Hospitals and Research Institute,
Kelambakkam, Tamilnadu-603 103
Contact Info: swarna7591@gmail.com

Introduction

4D 5D length (length of little finger in relation to ring finger) has been linked to various personality traits, popularly known as the 'Big Five Traits', which includes Neuroticism, Psychoticism, Extraversion, etc. The little finger length below the distal crease of the adjacent ring finger is said to be linked to decreased serotonin level and also to increased neuroticism scores. Serotonin and increased neuroticism is also known to affect sleep. The aim of this study is to find the relation between sleep pattern and 4D 5D length.

Materials and Methods

The Epworth Sleepiness Scale, a standard scale used for calculating a person's chances of dozing off in various situations was used to evaluate a group of undergraduate students (n=100). Other criteria like age, sex, questions related to sleep pattern etc. was obtained using a subject data sheet. The little finger length in relation to the ring finger was also measured.

Results

On statistical analysis majority of the students (80%) had their little finger below and showed significant correlation (71%) with an increased sleepiness score. Most of these students were able to recollect their dreams and were easily awakened from sleep when compared to those having a normal sleep score (>50%). The results were consistent in both the sexes.

Conclusions

In conclusion, little finger length in relation to the ring finger as a proxy marker of serotonin can be used to predict the level of sleepiness. Our results are in correlation with earlier studies which linked decreased serotonin levels to sleep cycle disruption and increased REM sleep duration. The future direction of this study will be to investigate the finger length in relation to various emotional disturbance related disorders.

Key Words

Sleep, Finger length, Serotonin

Prevalence of Prehypertension Among Medical College Students and Its Association With Other Cardiovascular Risk Factors

T. Zeeshan Muzahid

Final Year, MBBS; AMC, VISAKHAPATNAM
Contact Info: zeeshanmuzahid@yahoo.in

Introduction

Prehypertension, a term introduced in 2003 includes subjects with systolic blood pressure 120-139 or diastolic blood pressure 80-89mm of Hg (previously considered normal). The present study assessed the prevalence of prehypertension among medical college students and its association with cardiovascular risk factors.

Materials and Methods

275 students of Andhra Medical College were subjected to history, physical examination, blood pressure and anthropometric measurement. They were grouped as normotensives, prehypertensives and hypertensives. 30 normotensives and 30 prehypertensives were randomly selected to estimate lipid profile and glucose tolerance.



Results

There were 148 males and 127 females. 162(58.91%) were normotensives, 103(37.45%) were prehypertensives and 10(3.64%) were hypertensives. The prevalence of prehypertension was similar in males(39.18%) and females(35.43%). However, 9 of 10 hypertensives were males. The mean weight of the prehypertensives(61.69kgs+11.86) were significantly higher than in normotensives(57.03+8.84, p=0.0007). The mean Body Mass Index in prehypertensives (22.49+3.67) was significantly higher than normotensives (21.16+2.94, p=0.002). The mean waist circumference of prehypertensives(80.16cms+9.57) was significantly higher than normotensives(77.20+7.33, p=0.008). The mean fasting blood glucose and two hour blood glucose in prehypertensives (77.38 and 95.46) were similar to those in normotensives(77.46 and 90.46, p=NS). The mean cholesterol, triglyceride, low density lipoproteins, high density lipoproteins and very low density lipoproteins were similar in prehypertensives and normotensives(152.8 and 162.23; 78.46 and 83.42; 43.06 and 45.23; 88.03 and 94.3;21.7 and 22.69) (p=NS).

Conclusions

The prevalence of prehypertension in this group of medical students was 37.45% while 3.64% were hypertensives and only 58.91% were normotensives. The indicators of body mass were significantly higher in the prehypertensives when compared to normotensives. There was no significant association between glycaemic and lipid status with blood pressure. There is a need to screen youth for prehypertension and hypertension so as to recommend life style modifications.

Key Words

Prenhypertension Among Youth

isolates were traditional skin flora(32.18%). In addition other organisms such as Staph sp.(19.54%), Gram negative bacilli(45.98%) and fungi(2.30%) revealed a general level of contamination. The antibiotic sensitivity test revealed a high degree of resistance in the isolated microbes, Imipenem and Meropenem(94.25%) appeared to be the most active antibiotics against the majority of isolates, followed by Ciprofloxacin(78.16%). Cefoperazone(54.05%), Tobramycin(56%), Amikacin(54.05%) and Netilmicin(56.76%) were found to be relatively effective. The disinfectant spirit wipes were highly effective at removing or inactivating 98.85% of microbial contamination.

Conclusions

There is a higher contamination rate of computer user interfaces; contamination rates of non-pathogenic bacteria are higher than pathogenic bacteria and fungi. There is both a rapid emergence and increasing prevalence of resistant microbes in the hospital. Hence, it is highly suggested that routine cleaning of these surfaces with disinfectants like spirit should be encouraged.

Key Words

Computers, Nosocomial Infection.

Study of Microbes Contaminating Computers in Hospitals and The Effectiveness of Spirit in Their Disinfection to Prevent Nosocomial Infection

Tanmay Anand, Asima Banu

3rd Year, MBBS; BMCRI, Bangalore
Contact Info: tanmayanand19@gmail.com

Introduction

Hospital-acquired infections are increasing at alarming rates creating a growing financial burden on the healthcare system. Computers are ubiquitous and have been shown to be contaminated with potentially pathogenic microorganisms. They present unique infective control challenges as the keyboards and mouse are difficult to clean and moreover most hospitals do not offer disinfection instructions.

Materials and Methods

This is a prospective study designed to obtain the degree of contamination of computers. Two swab samples were taken from each object, one before and the other after disinfection with spirit. The samples were inoculated in appropriate media and the isolates were identified. Antibiotic sensitivity test was done to confirm their pathogenicity.

Results

It was found that all the tested 50 computer keyboards and mice, were positive for microbial contamination. Most of these

Raising Rabbit Anti Human T-Cell Receptor Polyclonal Antibodies or In Vivo Neutralisation of T-Cells in Graft Rejection Patients

U.Brahmaiah, Balaji Rao.S

3rd year, MBBS; MNR Medical College, Sanga Reddy
Contact Info: brahmaiah2red@yahoo.co.in

Introduction

The role of antibodies in the drug delivery strategies has been more explored in this decade. Anti-Thymocyte Globulin(ATG) is one of the potent immunosuppressive agent currently used to prevent organ graft rejection. It can destroy the target cell lines in vivo without raising Fc portion-oriented graft rejection in the foreign body. So the whole antibody usage in medical therapies demand Fc portion of that antibody resembling to that present in the target body. In the present work, polyclonal antibodies are produced against Thymus cells. Their molecular weight and their specificity against the antigen(Thymus cells) also tested. The samples are later dialyzed with suitable molecular cut off bags for ultra purification.

Materials and Methods

Includes Thymus collection, antigen preparation, Rabbit Immunisation-Bleeding after suitable days, separation of serum-antibody(IgG) extraction, antibody purification and Analysis(SDS-PAGE), double immuno diffusion, ELISA.

Results

IgG confirmed after purification with SDS-PAGE, Antibody activity confirmed with Double Immuno Diffusion Techniques, Antibody specific activity against Thymus cells as antigen confirmed by ELISA.

Conclusions

From the above results it is evident that there is a presence of Polyclonal antibodies against the prepared T-cell suspension. As the results qualitatively supports the work, quantitatively, the isolation of Polyclonal ATG from rabbit plasma using right



precipitation agent and that to right concentration is very important.

Key Words

ATG, Graft Rejection, Fc portion

Incidence of Diabetic Retinopathy in Type2 Diabetics

V Subbalakshmi Kota

*Intern, MBBS; ASRAM, Eluru, AP
Contact Info: lakshmi.kota@gmail.com*

Introduction

The world is facing a growing diabetes epidemic of potentially devastating proportions. Its impact is most severe in developing countries like India. 171 million people worldwide have diabetes in 2000. The number of people with diabetes will reach a total of 366 million by 2030. Diabetic retinopathy (DR) can be defined as damage to microvascular system in the retina due to prolonged hyperglycemia. It is estimated that in 2002 diabetic retinopathy accounted for about 5% of world blindness, representing 50 million blind. Duration of the disease and glycemic control are the strongest predictors. This is a center-based study exploring the incidence of DR among Type2 diabetes patients

Materials and Methods

A prospective study on convenience sample of 50 known Type 2 diabetics from the departments of medicine, endocrinology and ophthalmology during the period of June and August, 2009 is done. Patients include all diagnosed cases of diabetes above the age of 30 years. Central corneal opacities, mature cataracts, Grade IV nuclear cataracts excluded.

Results

Out of 50 patients, 9 were found to have DR i.e. 18%. Among this 18%, 10% have Non-Proliferative DR, 8% have Proliferative DR. 6% of DR patients had Macular edema. Strongest factor is period of hyperglycemia incidence, which is 3.6% with 0-4 years of hyperglycemia while it is 56% in 10-15 yrs hyperglycemic group.

Conclusions

Our study, which is a clinic-based, rather than population-based survey, reflects the incidence of diabetic retinopathy in the outpatient setting. The incidence was found to be 18% in the current study. Though this is not a large sample study, it highlights the size of the problem. Due to high prevalence of DR, serious national efforts are needed. A study about risk factors is also done. Significant risk was observed with duration of hyperglycemia.

Key Words

Diabetes, Diabetic Retinopathy, Period of Hyperglycemia

To analyze the influence of certain tumor, patient and procedure related factors on the diagnostic yield of CT-guided FNAC for lung lesions.
Vaani Mehta, Dr. Varinder Saini

*Government Medical College and Hospital, Chandigarh
Contact Info: vaanigmch@gmail.com*

Introduction

Computed Tomography (CT) guided Fine Needle Aspiration Cytology (FNAC) is banked upon as a wonderful aid to the cytological diagnosis of radiologically identified lung masses or lesions at our hospital. The main aim of the study was to find out - how certain tumor related variables, patient related variables and procedure related variables tend to influence the efficacy of CT guided FNAC for lung lesions; and also to find out how safe / feasible is it to carry out CT guided FNAC procedures in our hospital setting?

Materials and Methods

The study incorporates a combined retrospective analysis of case records of 116 patients from December 2008 to December 2010 and a prospective study on efficacy of CT guided FNAC was analysed in terms of sensitivity and specificity. Feasibility was assessed in terms of complications developed if any, number of passes/ attempts required and duration of the postprocedural hospital stay. Size, depth and location of the lesion were chosen as tumour related variables. Age, gender and presence of any co-morbid condition were the patient related variables. Needle type and clinician expertise were procedure related variables. Statistical analysis was then carried out.

Results

Lesion size, location and depth from skin surface were found to largely influence the feasibility and aspirate recovery from the lesion. However, age, gender, needle type barely changed the accuracy of the procedure.

Conclusion

For larger and superficial lesions, CT guided FNAC proves to be an ideal diagnostic tool. The procedure can be carried out in a reasonable period of time and chances of developing complications are very less. Its patient friendly nature makes the procedure a very feasible one for our hospital setting.

Evaluation of Utility of Autonomic Function Tests in Diagnosing Cardiac Autonomic Neuropathy in Early Diabetes
VARSHITHA.R, S.V.Brid
*4th Year, MBBS; JJMMC, Davangere
Contact Info: varshitha_r@yahoo.co.in*

Introduction

Prevalence of diabetes is increasing globally and India is no exception. Long term complications of diabetes include Cardiac Autonomic Neuropathy(CAN) leading to sudden death. The link between diabetes mellitus and cardiovascular diseases is established and recognized. Several epidemiological studies have shown that 5 year mortality rate is five times higher for individuals with CAN. Clinical symptoms do not occur until long after the onset of diabetes. Sub-clinical autonomic dysfunctions can however, occur within a year of diagnosis of type II diabetic patients and within two years in type I diabetic patients. Early recognition and treatment is important, as the autonomic complications of diabetes are potentially treatable.

Materials and Methods

Autonomic functions were assessed in 30 newly diagnosed



diabetes and 30 age and sex matched non-diabetic subjects using 5 autonomic function tests. CAN score was calculated by adding the total points from each of these 5 tests.

Results

Resting heart rate was higher in diabetic subjects ($p < 0.05$). Change in diastolic blood pressure during sustained hand grip test, was less than 15 mmHg in 60% of diabetics and more than 15 mmHg in non diabetic control subjects. Valsalva ratio, E/I ratio and blood pressure response to change in posture was within normal limits for both diabetic and non diabetic control subjects. 60% of the diabetic had CAN score '1'. QTc intervals were near upper limit of normal in diabetic subjects with CAN score '1'.

Conclusions

Our results indicate that diabetic group with CAN score '1' and prolonged QTc intervals, is probably the population that needs intervention to prevent lethal outcomes. It is important to diagnose CAN at an early stage as there are now symptomatic therapies that can re-orient the functional abnormalities towards improved function, as well as therapies that provide prospects for reversal.

Key Words

CAN, Qtc, Diabetes

To Assess Occupational Health Hazards and Measures Taken to Prevent Them Among the Dental Students and the Dental Staff Members of D Y Patil Dental College, Pimpri, Maharashtra: A Questionnaire Survey

Vidya Naik, Shalini Agarwal

Intern, BDS; D Y Patil Dental College, Pimpri, Maharashtra
Contact Info: vidya.naik25@gmail.com

Introduction

General health of dentists, especially effect of their occupation on it, is very important and as a matter of fact, not well documented subject. However, only few studies have focused on occupational health hazards faced by dental student population. The aim and objectives of the study was to assess the occupational health hazards and the measures taken to prevent them by the dental students and staff members of Dr. D Y Patil Dental College, Pimpri, Maharashtra through a Questionnaire Survey.

Materials and Methods

Study population included a total of 253 samples (students of first and second year [total 127 subjects], third and fourth year and interns [total 79 subjects], post graduates and staff members [total 47 subjects]). The data was obtained through three separate questionnaires prepared for each group. The data obtained was analyzed and frequency and percentage was calculated.

Results

93.61 – 93.67% of the dental students and staff were aware of occupational health hazards. Pain in upper and lower back, neck, shoulders and strain to eyes were statistically higher.

Stiffness of upper and lower back, burning sensation in hands, fingers and eyes and also bruxism were the most common complaints. Restricted jaw opening, excessive salivation and unco-operative patients also leads to fatigue and/or pain. However only 6–13% only were seeking medical care for their complaints even though their work was affected (14–23%). Also, 29–51% exercised regularly. Only 21–30% did neck and shoulder stretches and neck extension exercises. 62–65% worked by sitting only. 34.04% had suffered from lower back pain, 10.63% from cervical spondylosis and 4.25% from hand arm vibration syndrome.

Conclusions

Awareness about occupational health hazards was good. Musculoskeletal symptoms is a significant health hazard in studied population.

Sound infection control protocols and preventive measures are followed. Dental students are no exception.

Key Words

Occupational Health Hazard

Synergistic Anticonvulsant Interaction between Amisulpride and Gabapentin in the Pentylene-tetrazole Seizure Test

Vinam Puri, Ashish K Rehni, Thakur Gurjeet Singh, Sandeep Arora

4th Year, B.Pharm, Chitkara College of Pharmacy
Contact Info: puri_vini@yahoo.com

Introduction

The present study has been designed to investigate the possible synergistic interaction between the anticonvulsant effect of amisulpride and gabapentin.

Materials and Methods

A single injection of pentylene-tetrazole (80 mg kg^{-1}) was used to elicit seizure activity in mice. Seizures were assessed in terms of the time latency of the onset of straub-like tail, onset of jerky movements of whole body, convulsions and death. Dose response curves were obtained for the anticonvulsant effect of amisulpride and gabapentin administered systemically and ED50s were calculated. To examine the interaction of systemically administered amisulpride and gabapentin, an isobolographic design was used. It involved employing of fixed dose ratio combination groups in which amisulpride and gabapentin were simultaneously administered in ratio of their ED50s with the view of finding the ED50 of the combination. The classic additivity equation was used to explore the degree of interaction (α) at one effect level. Further the α term was utilized quantitatively to reflect the nature (additive, synergistic or antagonistic) and intensity of interaction.

Results

The experimental ED50 value of the combination of the two drugs was significantly lower than the theoretical additive value ($p < 0.05$), and 95% confidence intervals did not overlap, indicating a synergistic interaction.

Conclusions

It may be put forth that amisulpride, a relatively recent antipsychotic drug, demonstrates a synergism with gabapentin,



a GABA release mediator.

Key Words

Anticonvulsant, Amisulpride, Gabapentin

Association of Depression with Social Support and Self-Esteem among HIV Positives

Vinita Jagannath, Unnikrishnan B, Supriya Hegde, John T Ramapuram, Rao S, Achappa B, Madi D, Kotian MS

4th year, MBBS; KMC, Mangalore
Contact Info: cancerian_winnie@yahoo.com

Introduction

Depression in HIV positives has implications such as poor drug compliance, lower quality of life, faster progression to full blown AIDS and higher mortality. The aims of the study are to assess depression, social support and self-esteem in HIV positives and to find out the association of depression with social support and self-esteem among HIV positive patients.

Materials and Methods

Study constituted of 105 HIV positive subjects, depression was assessed using BDI(Beck Depression Inventory), social support was assessed using Lubben social network scale and self-esteem was assessed using Rosenberg self-esteem scale. *Statistical analysis:* Data was analyzed using SPSS version 11.5, statistical test ANOVA and CHI-SQUARE used and p less than 0.05 taken as significant. *Setting and design:* KMC(Kasturba Medical College) Hospital, a tertiary care hospital, Mangalore, India and cross-sectional design.

Results

Depression was found to be 43.8%, social support was found to be 73.3% and self esteem was found to be 94.2 % among the study subjects. There was no statistical association between depression and social support. An association between depression and self-esteem was found to be statistically significant.

Conclusions

The present study shows a high prevalence of depression in HIV positive patients along with the importance of self-esteem.

Key Words

HIV, Depression, Social support

Correlation between Biofilm Production and Multiple Drug Resistance in Clinical Isolates of Acinetobacter Baumannii

Viniitha L Rashme, M Dheepa, B.Appalaraju

3rd year, MBBS; PSGIMS, Coimbatore
Contact Info: vrashme2007@yahoo.com

Introduction

Acinetobacter baumannii has emerged as an important and problematic human pathogen as it is the causative agent of

several types of infections including pneumonia, meningitis, septicemia, and urinary tract infections. *Purpose of the study-* Determination of biofilm formation in clinical isolates of Acinetobacter baumannii and to determine the antibiotic sensitivity for 17 different antibiotics by Kirby-Bauer disk diffusion method and to correlate between biofilm production and multidrug resistance.

Materials and Methods

A total of 50 isolates were screened for biofilm production by both qualitative and quantitative method in Acinetobacter baumannii isolates. Biofilm production is demonstrated with standard tube test method, in which bacterial film lining a culture tube is stained with a cationic dye and visually scaled. In the second modified microtitre plate method, in which the optical density of the stained bacterial film is determined spectrophotometrically.

Results

In the present study done for biofilm production, both qualitative(tube method) and quantitative(microtitre plate) method showed 30 isolates(60%) as biofilm producers. Resistance to antibiotics such as Ceftazidime, Cefepime and Piperacillin was comparatively higher among biofilm producers than non-biofilm producers. Our investigations showed a simultaneous emergence of resistance to many antimicrobial agents available and represent a severe threat in the treatment of hospitalized patients.

Conclusions

This study demonstrates a high propensity among the clinical isolates of A. baumannii to form biofilm and a significant association of biofilms with multiple drug resistance. The high rate of in-vitro antibiotic resistance of the A. baumannii strains indicate the importance of controlled antibiotic usage and appliance of hospital infection control measures.

Key Words

Acinetobacter baumannii, Biofilm, tube method

Tacrolimus Modulates the Passive Avoidance Test and Apomorphine Induced Stereotypy in Rats

Vivek Kumar Chhabra, Ashish K. Rehni, Thakur Gurjeet Singh and Sandeep Arora

3rd year, B. Pharmacy; Chitkara College of Pharmacy, Chandigarh-Patiala National Highway, Rajpura- 140401, Patiala, Punjab, India
Contact Info: vc_vb1989@yahoo.co.in

Introduction

The present study has been designed to investigate the potential antipsychotic effect of tacrolimus on passive avoidance test using pole climbing apparatus and apomorphine induced stereotypy in rats.

Materials and Methods

Cook's pole climbing apparatus was used to assess the effect of test drug on the passive avoidance task in rats. Rats were trained on the pole climbing apparatus for a period of three days in order to learn to avoid electric shock due to a prior auditory cue. A beep sound acted as auditory cue immediately before initiating the episode of electric shock that lasted for a cut-off period of 25 sec. Apomorphine (2 mg kg-1) induced



stereotypy was quantitated in terms of the frequency of sniffing, chewing, compulsive gnawing, fore paw licking and head nodding. Behavioral observations were made for a period of 10 min immediately after apomorphine administration.

Results

Tacrolimus markedly and dose dependently attenuated the passive avoidance response seen in the Cook's pole climbing apparatus data. Moreover, tacrolimus significantly attenuated apomorphine induced stereotypy in rats.

Conclusions

Thus, it may be suggested that tacrolimus exerts anti-psychotics effect in rodents and thus may serve as a viable pharmacological agent to tackle the problem of schizophrenia.

Key Words

Tacrolimus, Passive Avoidance, Apomorphine Stereotypy

suggest for further research for timely analysis of drugs used in this vulnerable group.

Key Words

Drugs, Paediatrics, SMCH

Drug Use in Paediatrics Age Group in a Tertiary Care Center

Vivian Kapil, S. Mohamed Azeem, J. Mahendra Verma,
J. Thirunavukarasu, C.B. Tharani.

2nd year, MBBS; Saveetha Medical College And
Hospital (SMCH), Chennai

Contact Info: viviankapil@yahoo.com

Introduction

Drugs which are given for neonates and children are of immense importance because they deal with the future pillars of the world. Any beneficial or harmful effect caused by these drugs will definitely have a huge impact on the future generation. The ability of the paediatric age group to metabolise and detoxify the drugs makes much of a difference from drug administration in adults. We intend to explore it through this project. The objective was to study the different drugs used, indications, dosage, risk factors and cost factors involved in paediatrics.

Materials and Methods

Saveetha Medical College Hospital (SMCH), Thandalam, Chennai, was selected for the study. For the study purpose, we will be grouping the paediatric age group into; (based on WHO scales) GROUP I: Infants (up to one year of age). GROUP II: Pre-school age (1-4 years). GROUP III: School age (5-14 years). The data regarding the indication for which the drug was used and adverse effects; both were collected from inpatient and outpatient department, on data collection sheet. 300 IP and OP cases were studied for a period of 30 days and analysis was done.

Results

Different drugs used in paediatrics were studied and their use, indication, dosage was studied. A graphical representation and statistical analysis was done. Oral route was found to be the easiest and to have better compliance than others.

Conclusions

We have studied in detail about the drug usage in paediatric age group and determined the indications of their usage. We plan to carry out the same study among different levels of care (primary and secondary care centre) and analyze the results. We