
**Clinical Research - Why bother**

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No abstract.


**Clinical and laboratory profile of paroxysmal nocturnal haemoglobinuria in Kelantan - A ten year experience.**

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The clinical records of 11 patients diagnosed to have paroxysmal nocturnal haemoglobinuria (PNH) in Hospital USM and Hospital Kota Bharu between March 1983 and February 1994 were reviewed. Positivity in Ham's test was the major diagnostic criteria. Presenting features were similar to those in most series ie. lethargy (73%) and red urine (36%). Compared to European studies, the patients presented at a younger age (mean age 39 years, range 15-71). The complications seen included two cases of haemorrhage and one case of thrombosis (stroke) which is infrequent compared to European studies but similar to other Asian studies. The laboratory findings at presentation revealed that all the patients were anaemic (mean Hb 6.0 g/dl, range 3.3-8.9) and four patients (36%), had pancytopenia. Reticulocyte counts ranged between 0.1-30%. Bone marrow was hypocellular in four cases.


**Permanent T-cell Anergy in Murine Toxoplasma gondii infection and the possible role of non-adherent cells and their products in the immunosuppression**

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Lymphocyte blastogenesis experiments using T-cell mitogens, were performed on lymphocytes of mice chronically-infected with Toxoplasma gondii at different periods post infection (p.i.). The lymphoid cells demonstrated suppressed response to the mitogens from week one p.i. until week 17 p.i. Splenic lymphocytes from normal and infected mice were separated into adherent and non-adherent cell populations. Various combinations of these subpopulations were used in blastogenesis experiments. The non-adherent cell population was shown to be responsible for the immuno-suppression. In addition, supernatant from three day old cultures of infected mouse spleen cells was shown to depress the blastogenic response of normal mouse spleen cells to Concanavalin A. These results showed that infected non-adherent cells and/ or the production of soluble factors by these cells may play a role in the immuno-suppression of lymphocytes of Toxoplasma-infected mice to the mitogenic stimulations.
Dose-dependent effect of Reserpine on the Ultrastructure of the Myocardial Cells

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Reserpine was administered to guinea-pigs subcutaneously using the following regimes: 10 mg/kg/day for 14 days; 50 mg/kg/day for 14 days; 200 mg/kg/day for 7 days and 2 mg/kg/day for 3 days and 7 days. The results showed that the extent of structural alteration was dependent on the dose and duration of treatment. At low dose, the main structural change was an increase in glycogen granules. As the dose was increased, there was also an increase in lipid droplets. However, if the dose of reserpine given exceeded 2 mg/kg/day for 3 days, the increase in glycogen granules observed earlier with lower doses was no longer apparent but the increase in lipid droplets remained. At low doses, only a few myocardial cells showed structural alteration in mitochondria, swollen tubular systems and presence of autophagic vacuoles but at high doses, these changes were more frequently observed in many of the myocardial cells. The basement membrane and sarcolemma of the myocardial cells were not structurally altered.

Evaluation of quality of life at-own-risk-discharged (AOR-discharged) orthopedic patients from Hospital Universiti Sains Malaysia.

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In hospital Universiti Sains Malaysia, AOR-discharged cases in orthopedic trauma is high, estimated at 13% of all AOR-discharged cases. Between 1989 to 1991, 75 patients with close and compound fractures, who had made up their mind for AOR-discharge were randomly selected and were interviewed with a questionnaire to identify the factors that influence the patient's decision for AOR-discharge. More than 6 months later, they were contacted by mail to return to the hospital for re-examination, evaluation of their quality of life, and re-counsel for compliance. Twenty-three patients responded. All of them were males and 78.3% sustained injuries in traffic accident. Fracture of femur accounted for 56.5% with a majority (95.7%) had close fractures. The line of treatment proposed were conservative for 8 and surgical for 15 patients. Reasons cited for AOR-discharge were many but a majority believed that traditional (bomoh's) treatment was superior in healing rate. The quality of life evaluation was compromised by shortening of limb disability, nagging pain, reduction or loss of earning in all of them. Of the four patients recommended for corrective surgery only one accepted with good functional outcomes. Bomoh could be an ally to modern doctors in counseling, instilling confidence and hope to the patients through prayers and non-manipulative procedures.

**Retrospective analysis of clinical & laboratory profile and treatment regimen of multiple myeloma in Kelantan - 1983-1994**

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A series of 41 patients with multiple myeloma was studied retrospectively. The clinical and laboratory profile and treatment regimen were analysed. The patients were from 28-78 years old (mean 56), and the male:female ratio was 2.2:1. Bone pain and constitutional symptoms were the commonest presenting symptoms, and pallor was noted in 78% of patients. Eighty-eight percent of the patients had a haemoglobin of <10g/dL, and 79% had ESR >100mm/hr. Thirteen case had hypercalcemia of which 5 were IgA-type myeloma. Fifty percent of cases had either serum creatinine or blood urea raised. Immunoglobulin of IgG type was the most common class of myeloma with kappa being the commonest light. Varied treatment protocols were used but treatment responses could not be assessed fully because of frequent patient default. Generally, the findings in this study correlated well with those of larger studies on multiple myeloma.


**Community acquired pneumonia in adults: A review of clinical features, aetiology, treatment and outcome**

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A retrospective review of case records of adult patients admitted to Hospital USM between January 1990 and June 1993 with community-acquired pneumonia was done. There was a total of ninety patients (56 males, 34 females). About one third of patients had neither fever nor cough and chest signs were absent in 10% of patients. Seventy percent of patients had one or more underlying disease, the commonest being chronic respiratory disease and cardiovascular disease. Aetiological pathogens were identified in 40% of patients (the commonest was Klebsiella pneumoniae followed by Haemophilus influenzae). Streptococcus pneumoniae was detected in only three patients. Ampicillin was the most common initial antibiotic used and the majority of patients (90%) improved without complication. The mortality rate was 10%. Three of the six patients who died of pneumonia (septicaemia) had underlying diabetes mellitus.

Randomized cross-over comparison of aerochamber and jet nebulizer for bronchodilator therapy

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The bronchodilator response to fenoterol hydrobromide delivered by metered dose inhaler (MDI) with a spacer device (Aerochamber) and by jet nebulizer was compared in 12 asthmatic patients admitted to the hospital. In this cross-over study, the patients were randomized to received 200 ug of fenoterol hydrobromide delivered by an MDI plus Aerochamber and 2.5 mg of fenoterol by jet nebulizer on two consecutive days. The mean percent increase in absolute forced expiratory volume in 1 second (FEVI) with an MDI plus Aerochamber was 13.2% and 22.6% with jet nebulization. There were no significant difference in the mean percent increase in FEVI, forced vital capacity (FVC), maximum mid flow rate (MMFR) and peak expiratory flow rate (PEFR) with the two delivery methods. Subjective sensation of improvement after treatment with both delivery methods was reported by all 12 patients but nine patients preferred Aerochamber, two preferred nebulizer and one had no preference. It is concluded that there is no difference in the bronchodilator responses to fenoterol hydrobromide delivered by MDI plus Aerochamber or by jet nebulizer but more patients preferred Aerochamber.


Tuberculosis of the spine: A 5 years review at Hospital Universiti Sains Malaysia

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Seventeen cases diagnosed and treated as tuberculous spondylitis from 1987 to 1991 were reviewed. Majority are adults (15 cases) and 8 cases had neurological impairment. All have typical radiological features of infective spondylitis but only four cases had bacteriological and/or histological confirmation as tuberculous spondylitis. Erythrocyte sedimentation rate (ESR), Mantoux test and tuberculosis at other sites are used as supportive evidence.
To evaluate the perinatal risk factors for early infection in general and to identify the "high risk" factors among them, a prospective cohort study was conducted in levels I and II of neonatal nursery of Hospital Universiti Sains Malaysia, Kubang Kerian from 1st January to 31st May 1991. Four hundred and thirty neonates having at least one risk factor and 56 without any risk factor were included in the study. The incidence of infection was not significantly higher in the neonates with risk factors than those without them (P>0.072). "Prematurity" was found to be "high risk" factor whereas "small for gestational age" carried some risk. All the newborns admitted because of these risk factors should be evaluated for evidence of infection. Neonates with "high risk" factors should be treated as infected until proved otherwise. Further studies are required to assess the relative risk of other factors such as "prelabour rupture of foetal membranes > 12 hours", "foul smelling of liquor", "instrumentation during delivery", "emergency Caesarean section", prolonged labour", "hypoxia", "meconium staining of amniotic fluid" and "maternal pyrexia".

A total of 566 children aged 2 years and below were studied to assess breast and bottlefeeding practices in Tumpat, Kelantan. Nearly all (97.3%) of the children were breastfed. However, nearly half (42.7%) of the mothers ceased breastfeeding by 6 months. The main reasons for early cessation of breastfeeding was inadequate milk production and the inconvenience for mothers to work, plus the easy availability of infant formulae. Early counseling of mothers and even fathers can help reduce this early cessation of breastfeeding and also reduce infant formulae feeding.
The risk of grandmultiparity in Kelantan

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Grandmultiparity have been considered a high risk obstetric patient. In Malaysia, it is designated as a risk factor which would require hospital delivery. In Kelantan where cultural values are stronger, hospital delivery is an unattractive option for these mothers. This study focussed on the risks involved for grandmultiparity in the community setting in Kelantan. It was associated with a number of antenatal complications but labour and neonatal complications were almost similar with non grandmultiparous mothers. It can be said that grandmultiparous mothers without any other antenatal risk factors is a low risk pregnancy and need not be delivered in a hospital. However, availability of transportation to the hospital is important should any complication occur. The use of low risk birth centres in the rural health centres as the place of delivery for these mothers in a possible solution.

Needle-Stick Injuries in Medical Students

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Needle-stick injuries is a common occupational hazard for hospital personnel. This study looks at needle-stick injuries amongst medical students. Fifty-six injuries involving 28 students were reported in the 73 questionnaires that were returned. Twenty-five students sustained the injury during venepuncture. All the students resheathed the used hypodermic needles and this accounts for 92% of injuries sustained during venepuncture. All the students had received hepatitis B immunization and were educated on the risks of blood borne infections.

**The efficacy of vigabatrin in tonic-clonic and absence epilepsy models in mice**

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Vigabatrin acts by inhibiting irreversibly the enzyme GABA-transaminase in a dose dependent manner. This study look at the protective effect of vigabatrin against pentylenetetrazol and maximal electroshock induced seizure in mice. This paper also compares the effect of acute single dosing and multiple subchronic dosing of vigabatrin against the seizure models. It appears that vigabatrin does not protect the mice against pentylenetetrazole induced seizure but it does however protect them against maximal electroshock induced seizure after treatment with vigabatrin daily for one week at the dose of 50mg/kg(P<0.05). There appears to be ceiling of effect above which it does not protect the animals from maximal electroshock induced seizure.


**Detergent induced pulmonary collapse - An experimental study**

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Healthy and adult male albino rats were subjected to inhalation of gradually increasing doses of aerosol of dioctyl sodium sulfosuccinate, a powerful anionic detergent. Another group of animals which acted as control were subjected to inhalation of aerosol of vehicle (ethanol and saline) used as solvent for the detergent. Focal atelectasis of alveoli was observed after exposure to 20 mg of detergent as aerosol.


**A study of neonatal jaundice in Kelantan, Malaysia**

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A review of 10,021 neonates admitted to neonatal intensive care unit at Hospital Universiti Sains Malaysia during January 1989 to December 1992 were studied to determine the incidence of jaundice, the morbidity and mortality pattern. The commonest cause of neonatal jaundice was physiological (89.1%). The least common was Rhesus incompatibility (0.03%). The commonest cause of mortality was gram negative sepsis in premature babies (3.1%), ABO incompatibility was the commonest cause in neonates with hyperbilirubinemia more than 400 umol/L.
Overview On Illegal Drug Abuse In Malaysia

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Illegal drug abuse is a major problem in Malaysia, declared as Nation's number one enemy by the Malaysian Prime Minister in 1983. Since then massive efforts to curtail this problem were carried out including programmes in prevention, rehabilitation, legislation enactment and implementation. This article attempts to analyse if significant improvement occur as a result of our efforts. This article also touches on the pattern of drug abuse in Malaysia and problems commonly encountered with abusing drugs, the most pressing problem now being HIV infection.

Haemagglutinating and microfilaricidal factors in haemolymph of Brugia pahangi-infected Armigeres subalbatus

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It is not uncommon to see dead parasites in the haemocoels of insects and the production of toxic factors associated with 'immune' response have been demonstrated by many workers. In this communication, we demonstrate the presence of haemaglutinins and also microfilaricial factors in the haemolymph of Brugia pahangi-infected Armigeres subalbatus. Maximum haemagglutinating activity was observed at 24 hours post infection (p.i) followed by day 6 p.i. Similarly, peak microfilaricial activity was in the haemolymph obtained from mosquitoes with a 24 hour old infection and the effect was minimal in the mosquitoes dissected on day 6 or day 10 p.i. The mosquitoes seemed to mount a significant response only during the early stages of infection i.e. when the microfilariae were in the haemocoel and when stage 2 larvae moult into stage-3 in the thorax.
Infection is one of the serious complications of operation on the biliary tract, and such infection may be fatal. The objective of this study is to review the microflora of the biliary tract of patients with gallstones, to examine the relationship between infection in bile and post-operative septic complications, and to provide a rational approach to the usage of antibiotics. Twenty-four consecutive cases of open cholecystectomy done at Hospital Universiti Sains Malaysia over two years were taken into the study. Specimens of bile from the common bile duct and gallbladder, and specimens of gallbladder wall and gallstones were sent for culture for both aerobic and anaerobic organisms. Eight patients had Cefuroxime as prophylaxis, eleven had therapeutic antibiotics, and five received no antibiotics at all. The result indicated that 12 cases (50%) were culture-negative and 8 were positive for Klebsiella sp (33%). E. coli were positive in 6 cases (25%). Salmonella typhi was isolated in one case only. No anaerobic organisms were cultured. One case had post-operative complication in the form of wound infection which cultured the same organism as the bile, namely Pseudomonas aeruginosa. In conclusion, the main microflora of the biliary tract of patients with gallstones are Klebsiella sp and E.coli. Presence of bacteria in bile does not seen to be related to occurrence of post-operative infection. Prophylaxis or no prophylaxis at all in non-jaundiced patients does not seem to make a difference as far as post-operative complication in concerned.
Health seeking behaviour amongst outpatients as Community Health Clinic, Hospital Universiti Sains Malaysia, Kubang Kerian, Kelantan

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A cross-sectional study involving 200 outpatients at the Community Health Clinic (Klinik Perubatan Masyarakat) was undertaken between August and September 1994 to identify the health seeking behaviour as well as the knowledge of, attitude towards, and practice of health prevention and promotion as well as curative health strategy. Data was collected using a self-completion, semi-structured questionnaire administered to a random sample of out patients whilst waiting for their consultations. Results suggest that a significant proportion (15.2%) of the respondents presented with non-specific symptoms of illness whilst the majority of symptomatic presentations were those of fever (11.5%), headache (10.9%) and high blood pressure (7.3%). Majority of patients who seek a second mode of treatment after an apparent failure of the first mode of treatment, went to government doctors (41.5%), followed by private practitioners (36.9%) and medical assistant (6.2%); a sizable proportion (10.8%) seek traditional healers (bomoh). Majority of respondents (67.3%) kept their medications in the refrigerator. Significant correlations were shown between the following: younger age with diet (p=0.01); married status with knowledge regarding aetiology of disease (p=0.003); married status with consumption of traditional herbs (jamu) (p=0.04); married status with self-treatment (p=0.01); married status with vitamin necessity (p=0.006); higher employment category with self-help (p=0.02); salaried workers with antibiotics compliance (p=0.03) and others. Obviously further studies need to be conducted to examine these factors in relation to the health seeking behaviour in the community.


Carcinoma of gallbladder: case report with review of the literature

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An early case of carcinoma of the gallbladder is reported. The aim of this report is to emphasise the fact that early preoperative diagnosis of gallbladder carcinoma depends on clinical awareness and characteristic ultrasonographic findings of the disease. Once diagnosed as genuine early gallbladder carcinoma, simple cholecystectomy is recommended as the preferred treatment of choice.

**Bronchiolitis Obliterans Organising Pneumonia (BOOP) in an infant**

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A 4-month old Malay girl with an acute history of fever and cough was admitted because of sudden development of subcutaneous emphysema and pneumomomedistinum. The baby showed initial clinical improvement with antibiotics but remain in respiratory distress and oxygen dependent. Serial chest X-rays showed persistent nodular and interstitial opacities. Various investigations done did not show any specific cause. With a clinical diagnosis of bronchiolitis obliterans organising pneumonia (BOOP) steroids was started with dramatic clinical improvement.


**Paraneoplastic bulbar palsy, papilloedema and encephalopathy in renal cell carcinoma**

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A 43 year old Malay man was admitted to the medical ward with hypoglossal nerve palsy and papilloedema. In addition electroencephalography showed evidence of encephalopathy and he was subsequently found to have poorly differentiated multicentric renal cell carcinoma without evidence of central nervous system metastasis. The spectrum of paraneoplastic manifestations in renal cell carcinoma is reviewed.


**Congenital diaphragmatic hernia: Improving surgical management**

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Mortality in patients with congenital diaphragmatic hernia is mainly determined by the degree of lung hypoplasia. However, parental ignorance, inefficient transportation of ill neonates and poor ventilator care may contribute to mortality, but can be rectified. We found that omission of chest drainage after closure of the hernia defect does not seem to increase morbidity.

Unusual aerodigestive foreign bodies - 1

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Foreign bodies of upper aerodigestive tract are common in children. Oesophageal foreign bodies usually occurs if the foreign body is sharp or if there is an anatomical abnormality of the oesophagus. A case of an impacted fruit in the oesophagus in a ten years old child presented in a bizarre fashion is described. The situations where high suspicion of a foreign body should be thought of with explanations for clinical findings and management are discussed.


A comparison of student's learning experience in a teaching and district hospital

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Teaching hospitals has been a traditional source of clinical experience in undergraduate medical education. However, arguments have been made that medical students will have a less active role in patient care in the teaching hospital compared to the community hospital as the proportionately larger number of clinical staff and students at the teaching hospital makes it difficult for students to obtain specific clinical responsibilities. A comparison of student's learning experience in both the teaching and district hospital was done by end of posting questionnaires of the district hospital posting and the internal medicine and paediatrics posting at the school of Medical Sciences, Universiti Sains Malaysia. Teaching hospital postings are more structured and students are generally kept busier with more formal teaching sessions. Teaching at the district hospital are more informal and students spend more time clerking and examining patients in the wards and the clinics. Student's experience of clinical procedures are mostly similar in both postings.


Clinical Profile of Paediatric HIV

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No abstract
Medicine in resuscitation of the newborn

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Most medications used in newborn resuscitation are based on studies done in children and adults. Because of the different physiological and anatomical factors in neonates, drugs cannot be assumed to have the same indications, dosages, response and safety. The umbilical vein is most commonly used for intravenous (IV) infusion of medications. However when venous access is not readily accessible the endotracheal (ET) route may be used to deliver drugs. As optimal drug dosages for ET administration in neonates has not been determined, the recommended ET dosage of drugs is the same as the IV dose. Medications commonly used in neonatal resuscitation are adrenaline, volume expanders, sodium bicarbonate, dopamine and naloxone hydrochloride; and are only needed in neonates who do not respond to adequate ventilation with 100 % oxygen and chest compressions. In children and adults a higher IV dosage of adrenaline (0.1 mg/kg) has been shown to improve long term survival. However, as such high dosages of adrenaline may cause systemic hypertension and intracranial haemorrhage in newborn infants, the dose of adrenaline should be 0.01 - 0.03 mg/kg for the first and subsequent doses. A higher dosage of naloxone (0.1 mg/kg) has been recommended so as to provide optimal opiate reversal in most newborns. In small neonates, the use of Neonatal naloxone (Narcan 0.02 mg/ml) may result in infusion of unacceptable fluid volumes; and preparations containing 0.4 mg/ml or 1 mg/ml may be more appropriate. Sodium bicarbonate has not been shown to improve successful resuscitation rates or intramyocardial acidosis, and should be used only when there is documented or assumed metabolic acidosis or if resuscitation is prolonged and the infant remains unresponsive to other measures. There is no evidence that other medications such as atropine or calcium is useful in the acute phase of neonatal resuscitation in the delivery room.