

ABSTRACTS

**Abstracts of Theses Approved for the MSc, MMed, and PhD.
Degrees at the School of Medical Sciences, University Sains Malaysia, Health Campus,
Kubang Kerian, Kelantan, Malaysia.**

**A STUDY ON COGNITIVE IMPAIRMENT AND DEMENTIA
AMONG OUTPATIENT CLINICS**

*Dr. Norlaily Bt Hassan
MMed Family Medicine*

Department of Family Medicine,
School of Medical Sciences, Universiti Sains Malaysia, Health
Campus, 16150 Kelantan, Malaysia.

Objectives: To assess the prevalence of cognitive impairment and dementia and to identify its associated factors among elderly patients attending outpatient clinics (KRP & KPP), Hospital Universiti Sains Malaysia.

Patients and Methods: This was cross sectional study involving 399 elderly patients, age 65 years and above, attending outpatient clinics, (HUSM) from January till December 2006 by means of 2 phase procedure. During the phase one screening test, we used validated Malay version of MMSE or ECAQ for illiterate patients. The patients and caregivers were also interviewed using questionnaires on socio-demographic, familial factors, medical history and lifestyles factors. In phase 2, diagnostic study was done on patients with MMSE scores of ≤ 17 or ECAQ of ≤ 5 including 5% of those who scored one or two points above cut-off value in phase 1. The diagnostic study consisted of detailed history and examination of patients which included interview with patient's caregivers. Dementia was diagnosed by means of DSM-IV criteria.

Results: Amongst 399 patients screened, 47 patients were found to have cognitive impairment (43 patients scored positive on ECAQ and 4 on validated Malay version of MMSE). Thus the prevalence of cognitive impairment is 11.8%. Fifty one patients (47 patients who scored positive on screening and 4 screened negative patients) were invited for formal diagnostic testing in phase 2 however only 47 patients were successfully completed phase 2. Ten patients were found positive for dementia. Prevalence of dementia was 2.5%. Female (OR: 6.96, $p < 0.05$), no formal education (OR: 9.11, $p < 0.05$), number of living 8 and more (OR: 6.27, $p < 0.05$) and history of hypertension (OR: 0.35, $p < 0.05$) were significant associated factors for cognitive impairment. Associated factors for dementia (based on univariate analysis) were history of exposure to pesticide and history of stroke.

Conclusion: Prevalence of cognitive impairment and dementia in this study was lower compared to previously reported studies in Malaysia. Female, no education, number of living 8 and above independently predicted cognitive impairment. However, history of hypertension seems to have protective effects. Associated factors for dementia (based on univariate analysis) were history of exposure to pesticide and history of stroke.

**Dr. Azidah Abd. Kadir : Supervisor
Dr. Juwita Saaban : Co-Supervisor**

.....

**A STUDY ON AMBULANCE RESPONSE TIME IN KUALA
LUMPUR, MALAYSIA**

*Dr. Ahmad Fadzil Bin Sujak
MMed Emergency Medicine*

Department of Emergency Medicine,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction: Ambulance service is a main part of pre hospital treatment. Time taken to response to emergency call is known to impact on the chain of survival. Ministry of Health (MOH), Malaysia targeted 95% of the ambulances arrive at the scene of the incident within 30 minutes of received of the emergency call.

Objectives: To study the performance of emergency ambulance service based on ambulance response time in Kuala Lumpur, by analyzing the call processing time and dispatch-to-scene time.

Patients and Methods: A retrospective study was conducted at the Medical Emergency Call Centre (MECC), Hospital Kuala Lumpur (HKL) from 1st October 2007 till 31st April 2008. The study was approved by the National Medical Research Registration, Ministry of Health (MOH) Malaysia for approval. All emergency calls for ambulance service were handled by call taker in MECC, HKL. The call taker would interact with the caller to gather critical medical information through an algorithmic set of questions as depicted in Emergency dispatch form and would manually filled up the form. The call taker would determined appropriate medical call triage according to the information collected. With all the gathered information from caller, then the call taker pass it to the call dispatcher in MECC, HKL with the exact time being recorded. Then the call dispatcher would order the responder for ambulance deployment, and the time the responder receiving order from the call dispatcher recorded. The responder would make a decision of the appropriate type (Basic or Advanced) of ambulance team to be deployed. Subsequently, the call dispatcher would obtain from the responder the time of ambulance arrival at the scene or incident site. After completion, the 'Emergency Dispatch Form' was then collected and was kept in the MECC room at HKL.

Results: A total of 525 calls were included in the study and entered for data analysis. 327 of cases involved non trauma patients and the remaining 198 numbers of cases comprised of trauma patients. In this study it was demonstrated that 87.8% (n=461) of the cases had a time period of being less than 5 minutes from when the calls were picked up, information obtained and phone triage done until the time responders were activated. Meanwhile 12.2% (64) of cases had registered times of more than 5 minutes. In this study, the dispatch-to-scene time has a mean of 21.9 minutes with standard deviation of 14.9. Although trauma-type calls formed only 37.7% of the calls studied, they showed higher percentages (86.4%) of achieving ART within 30 minutes as compared with non trauma-type of

calls which formed 62.3% of cases and yet only 78.3% achieved ART within 30 minutes. The difference of 8.1% was observed and it was statistically significant.

Conclusion: This study showed that the performance of ambulance service in Kuala Lumpur was still below than expected by the MOH Malaysian Guideline Standard. The achievements by components were for 'call processing time' was 87.8% and 86.4% for the 'dispatch-to-scene time' was 86.4% (trauma calls). Location of patients or incident site did play a significant role in determining the outcome of the ambulance response time. Well link roadways in Kuala Lumpur help emergency responders to attend motor vehicle accidents promptly. The use of either hospital based or NGO based emergency services did not affect the ambulance response time significantly.

Assoc. Prof. Dr. Nik Hishamuddin Nik Ab. Rahman : Supervisor
Dr. Mahathar Abdul Wahab : Co-Supervisor

.....

A STUDY ON THE ASSOCIATION OF SERUM LIPID PROFILE WITH RETINAL HARD EXUDATES AMONG PATIENTS WITH TYPE 2 DIABETES MELLITUS IN HOSPITAL USM

Dr. Amelah Mohamed Abdul Qader
MMed Ophthalmology

Department of Ophthalmology,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction: Retinal hard exudate is a component of diabetic retinopathy which is formed due to breakdown of the inner blood retinal barrier, as a process of microangiopathy.

Objectives: This study was done to relate the association between lipid profile and retinal hard exudates in diabetic retinopathy and the association between oxidized-LDL with systemic diseases among type 2 diabetic patients.

Patients and Methods: A cross sectional study was conducted in 40 patients with diabetic retinopathy and another 40 patients without diabetic retinopathy. Demographic data was collected and comprehensive ocular examination was performed. Nine nil venous blood was taken for fasting serum cholesterol, triglycerides, MDL, LDL, ox-LDL, and for HbA_{1c}.

Results: The mean serum cholesterol level was 5.9 (1.86) mmol/L in diabetic retinopathy group compared to patients without retinopathy 5.0 (1.03) mmol/L (P=0.001). The mean serum LDL was 3.6 (1.69) mmol/L in retinopathy group compared to 3.0 (1.02) mmol/L in the control group (P=0.005). There was a higher concentration of serum cholesterol, triglyceride and LDL in patients with severe retinal hard exudates compared to those with mild and moderate, however it was not statistically significant (P= 0.082, 0.116, 0.218) respectively. The mean serum oxidized-LDL concentration was higher in diabetic retinopathy with severe retinal hard exudates compared to mild and moderate. There was no statistically significant difference in the mean oxidized LDL with other systemic diseases or duration of diabetes.

Conclusion: There was significant association between serum cholesterol and LDL with diabetic retinopathy. However there was no association between serum lipid profile with the severity of retinal hard exudates. Serum ox-LDL was also not associated with diabetic retinopathy and other systemic co-morbidities in our study.

Assoc. Prof. Dr. Mohtar Ibrahim : Supervisor
Dr. Bahiah Shaharuddin : Co-Supervisor
Dr. Shatriah Ismail
Dr. Shaharul Baryah

.....

A STUDY OF OUTCOME OF NEWBORN HEARING SCREENING PROGRAMME IN HUSM FROM JANUARY 2003 TO DECEMBER 2007

Dr. Amirozi Ahmad
MMed ORL-HNS

Department of ORL-HNS,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia

Introduction: Universal newborn hearing screening has been started in HUSM since January 2003. The effectiveness and the challenges of the programme need to be evaluated.

Objectives: This retrospective study aimed to determine the outcome of the newborn hearing screening in HUSM from January 2003 to December 2007.

Patients and Methods: All infants who were delivered in HUSM were screened for hearing impairment with portable distortion product otoacoustic emission (DPOAE) before discharge. When they failed the initial screening, a second screening with DPOAE was arranged in 6 weeks. When these newborns failed the second screening, an audiologist performed a diagnostic auditory brainstem response (ABR) test to confirm the hearing loss. In this study, the data of 16,100 newborns were traced from the newborn hearing screening record. The data such as sex, race, age, results of the first, second and third screening were analyzed with SPSS 16.0.

Results: The study showed that the coverage of the UNHS was 98%. The prevalence of hearing impairment was 0.09%. The prevalence of initial screening refer rate was 25.5%. The prevalence of defaulters in second and third screening was 33.9% and 40.7% respectively. The age of detection of hearing impairment was 3.31 months (S.D. 0.86). The age of hearing aid fitting was 13.57 months (S.D.4.82)

Prof. Dr. Dinsuhaimi Sidek : Supervisor
Dr. Mohd Khari M. Daud : Co-Supervisor

.....

THE ROLE OF ANATOMICAL VARIATIONS IN OSTEOMEATAL UNIT THE AETIOLOGY OF CHRONIC RHINOSINUSITIS

Dr. Azila Bt Alias
MMed ORL

Department of ORL
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, Kelantan, Malaysia.

Introduction: The complexities of the nose and paranasal sinuses anatomy, as well as their multiple functions make the sinuses an interesting and rewarding topic of study especially at the region of osteomeatal complex (OMC). Congenital anomaly in this region, though rare, may create technical difficulties during surgery. However, the role of anatomical variations in pathogenesis of sinusitis is still unclear.

Objectives The aims of the study were to look into the anatomical variations in the osteomeatal complex in chronic rhinosinusitis patients, to determine the association between bony anatomical variations in osteomeatal complex with chronic rhinosinusitis (CRS) and to determine the main anatomical variations in the osteomeatal complex which are usually depicted by computed tomography (CT) and nasoendoscopy in patients with CRS and normal patients without CRS.

Patients and Methods : A case control study was done in

which we had reviewed the CT scan of paranasal sinuses (HRCT) images of 240 individuals, 120 cases of CRS and another 120 patients without CRS problem. Their paranasal sinuses CT scan obtained 1.25mm thicknesses in axial and coronal planes with high resolution technique were reviewed. The data were analysed using Pearson CM Square test.

Results : The anatomical variations recorded were: Concha bullosa in 49 cases (40.8%) amongst the CRS and 57 cases (47.5%) among patients without CRS, Paradoxical middle turbinate in 14 cases (12.0%) of CRS and 27 (23.0%) in patients without CRS, pneumatized uncinate process were found in 3 cases (3.3%) of CRS cases while in patients without CRS 3 cases (3.3%) as well, Hailer's cells (infraorbital ethmoid cell) in 61 (51.0%) cases of CRS while 75 cases (62.0%) cases of patients without CRS, pneumatized agger nasal cell 100 (83.0%) in CRS and 95 (79.0%) in patients without CRS, deviated nasal septum in 67 cases (56.0%) of CRS while in patients without CRS 73 (60.8%) cases and lastly pneumatized septum seen in 4 (3.3%) cases of CRS and none in patients without CRS. However 'the presence of single anatomical variation itself does not have significant association with the genesis of CRS except for paradoxical middle turbinate and infraorbital ethmoid cell.

Conclusion : The most common anatomical variation in osteomeatal complex in CRS patients are pneumatized agger nasi cell, followed by haller's cell, DNS, right concha bullosa, left cciicba buflosa, paradoxical middle turbmate, pneumatize uncmate process and lastly septum pneumatization. And the single occurrence of an anatomical Vanant itself does not establish the genesis of the CRS tsease except for paradoxical middle turbinate and infraorbital ethmoid cell.

Dr. Shamim Ahmed Khan : Supervisor
Dr. Rushdan Ismail : Co-Supervisor
Dr. Rohaizan Yunus

.....
A PRELIMINARY STUDY TO COMPARE THE PREDICTION ERROR OF POSTOPERATIVE REFRACTION IN PAEDIATRIC CATARACT SURGERY BETWEEN 2 DIFFERENT INTRAOCULAR LENS POWER CALCULATION FORMULAS

Dr. Azlyn Azwa Binti Jasman
MMed Ophthalmology

Department of Ophthalmology,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction : The treatment of paediatric cataracts has progressed tremendously in the past 15 to 20 years. There is a growing trend towards intraocular lens implantation in infants and younger children whose eyes are still undergoing rapid growth and refractive changes.

Objective : This study assessed the predictability of desired refractive outcomes at 3 month postoperative period in paediatric patients undergoing cataract surgery with primary placement of an intraocular lens.

Patient and Methods : This was a randomized interventional study of 31 eyes (24 patients) that successfully underwent cataract surgery and intraocular lens implantations. All patients were 12 years old and below. Intraocular lens power calculations were made using either SRK II or Modified Formula For Paediatric IOL Calculation. The postoperative refractive outcome was taken as the spherical equivalent of the refraction at 3 month postoperative follow-up. The prediction error was taken as the absolute difference between the predicted and the actual refraction. The data were analysed to compare the mean prediction error between SRK II and Modified Formula

and evaluate the predictability.

Results : The mean prediction error in the SRK II group was 1.03 (0.69) D while in Modified Formula 1.14 (1.19) D. The SRK II group showed lower prediction error of 0.11 D compared to Modified Formula group, but this was not statistically significant ($p > 0.05$). 18.75% eyes in SRK II group achieved good predictability i.e. the refraction postoperatively was within ± 0.5 D from predicted refraction compared to 46.67% eyes in the Modified Formula group. However the difference of the predictability between the two formulas was also not statistically significant.

Conclusion : We concluded that the predictability of postoperative refraction in paediatric cataract surgery was comparable between Modified Formula and SRK II formula. The existence of the Modified Formula provided an alternative to the ophthalmologist for intraocular lens calculation in paediatric patients.

Dr. Zunaina Embong : Supervisor
Dr. Bakiah Shaharuddin : Co-Supervisor
Dr. Raja Azmi Mohd Noor

.....
A PILOT STUDY INTO THE EFFECTS OF LABISIA PUMILA (KACIP FATIMAH) VAR ALATA WATER EXTRACT ON POST MENOPAUSAL WOMEN

Dr. Dg. Marshitah Mohammad
MMed O & G

Department of O & G,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction: *Labisia pumila* (Kacip Fatimah) is a traditional herb commonly used by Malay women during the peripartum period to make the process of childbirth easier and also as traditional herbal preparation during the postpartum period to improve the general condition of the mother. Recent research on Kacip Fatimah has shown that it has estrogenic-like activity, behaves like a phytoestrogen and has no adverse effects in premenopausal women.

Objectives: The effects of Kacip Fatimah spray dried water extract on post menopausal Malay women by studying safety profiles such as haematological indices, liver and renal function, the cardiovascular effects from body mass index and waist hip ratio, the effects on blood pressure, were investigated ECG and chest x-ray, the effects on the breast by studying mammographic changes, the effects on the pelvis from cervical smear reports. The investigation also include a review of undesirable side effects should these occur.

Patient and Methods: This was a randomized, double blind, placebo controlled study comparing three different doses of sprayed dried water extract of Kacip Fatimah against a placebo on post menopausal Malaysian women. 70 eligible participants were divided into four groups. Group 1 received 140 mg /day Kacip Fatimah, Group 2 received 280 mg / day Kacip Fatimah, Group 3 received 560mg /day Kacip Fatimah and group 4 received placebo (maltodextrime) Pre study screening and assessment was done and if the subject was eligible informed consent was taken and baseline investigations including hematological, liver and renal function tests, chest x ray, electrocardiography (ECG), mammography, pelvic ultrasound and pap smear were performed. Those respondents with normal baseline investigations were invited to participate in this study. The study duration was six months and all participants were required to come to the clinic for clinical examination two monthly. During each visit the participants were asked

regarding any side effects of medication or occurrence of any vaginal bleeding. Participants were also required to come for a supply of medication each month and the investigator team had to ensure that all participants complied with the medication and scheduled visits. On visit 4, all blood investigations, blood pressure, chest x ray, ECG, mammography, pelvic ultrasound and pap smear were repeated again.

Results: There was no significant difference seen in demographic profile between the four groups of postmenopausal women. No significant changes were seen in the measurement of body mass index and the waist hip ratio at the end of study period. In terms of haematological indices, liver and renal function, no significant changes were seen in each of the four groups. Other investigations such as blood pressure, chest x ray, ECG, mammography, pelvic ultrasound and pap smear were all normal. There were 11 patients who developed vaginal bleeding or spotting. Ultrasound and pipelle sampling were carried out to investigate the cause of the bleeding. Secretory phase endometrium were identified in two participants, proliferative phase endometrium was diagnosed in one participant, changes compatible with postmenopausal endometrium in one participant. The results of the remaining six participants showed inadequate tissue for diagnosis. One patient had no pipelle sampling report as she refused this investigation.

Conclusion: Based on the findings of this research, consumption of spray dried water extract of *Lab Esia pumila* (Kacip Fatimah) up to 560 mg per day for six month would appear safe and has not been shown to cause any adverse effect to the body, however the incidence of vaginal bleeding in this study is of concern and require further evaluation in a larger sample size study with proper investigation of post menopausal bleeding should it occur by ultrasound scan, pipelle endometrial sampling and hysteroscopy with dilatation and curettage if indicated.

Prof. Dr. Mohd Shukri Othman : Supervisor
.....

A STUDY OF MITOCHONDRIAL A1555G MUTATION IN AMINOGLYCOSIDE INDUCED OTOTOXICITY

Dr. Eshamsol Kamar Bin Omar
MMed ORL-HNS

Department of ORL-HNS,
School of Medical Sciences, Universiti Sains Malaysia, Health Campus, 16150 Kelantan, Malaysia.

Introduction: Aminoglycoside induced ototoxicity is one of the most common causes of acquired deafness, involving the auditory and vestibular system. The Vestibular and Audiototoxicity is frequently irreversible. In developing countries, like Malaysia, aminoglycoside are more routinely used even for a minor infection, since it is relatively cheap and easily available. However, studies conducted in Asian country had proved that aminoglycoside caused 10 to 20% of hearing loss. Mitochondrial A1555G Mutation - An alteration or change, as in nature, form, or quality of a gene that maternally inherited gene during fetal life and has an association with hearing loss. People who carry the genetic mutation of mitochondrial DNA (mtDNA) A1555G, has a higher risk of having hearing loss when expose to aminoglycoside drug (eg: streptomycin, gentamycin etc) compare to them who do not carry the mutation gene. A study which was conducted in Japan, found that 40% of the patient who had hearing loss due to this drugs, also carry the mtDNA A1555G mutation. From this study, we hope that we could detect early genetic A1555G mutation, especially in newborn baby, so that prevention can be made early and precaution

should be taken before prescribing aminoglycoside drugs.

Objectives: The purpose of this study was to determine the prevalence and association of mtDNA A1555G mutation in subjects with aminoglycoside-induced ototoxicity.

Patient and Methods: A cross sectional study was carried out in Otorhinolaryngology clinic HUSM and PKB, Kota Bharu from June 2007 to May 2008. Twenty two subjects with aminoglycoside induced ototoxicity and twenty two control subjects without ototoxicity after exposed to aminoglycosides were included in this study. Ototoxicity was confirmed by pure tone audiometry and distortion product otoacoustic emission (DPOAE). All eligible and consented patient was underwent buccal mucosa swab for further genetic analysis for mtDNA A1555G mutation.

Results: There was 1 subject (4.54%) in the aminoglycoside-induced ototoxicity group identified to have the mtDNA A1555G mutation. There was no significant association between mtDNA A1555G mutation and ototoxicity in this study (P=0.500).

Conclusion: In our study, we found mtDNA A1555G mutation in one of our subject who had hearing loss secondary to ototoxic drug. Though, it was not significant statistically. There is a possibility that the prevalence of this mtDNA mutation is truly very low in our population. However, a further larger study with a bigger sample size and a wider area of coverage need to be done to confirm our finding.

Dr. Mohd Khari Md Daud : Supervisor
Prof. Dr. Dinsuhaimi Sidek : Co-Supervisor
.....

COMPARISON BETWEEN ENDOSCOPIC DACRYOCYSTORHINOSTOMY (EDCR) WITH AND WITHOUT NASOLACRIMAL SILICONE STENT

Dr. Hamidah Mamat
MMed ORL-HNS

Department of ORL,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction : Endoscopic dacryocystorhinostomy is a procedure of treating obstructed nasolacrimal duct endoscopically. All this while these cases were treated by the ophthalmologist with a procedure called external DCR. With the development of endoscopic surgery, otorhinolaryngologist gives another option to patients with obstructed nasolacrimal duct, with a scarless DCR. It was thought that stenting is crucial in maintaining the patency of post DCR cases. However, stenting is noted to cause few post operative complication and prolonged the duration of operation.

Objectives : The objectives of this study was to compare the outcome of EDCR cases with nasolacrimal silicone stenting and without stenting. Apart from that, this study was performed to compare the operative time used by these two groups and to see the complications that developed post operatively.

Patients & Methods : This was a cross sectional study of patients that underwent EDCR at Hospital Alor Setar from June 2004 till December 2007, included minimum of 6 months follow up post operatively. Forty eight patients with problem of obstructed nasolacrimal duct underwent DCR endoscopically. Twenty three patients underwent DCR with nasolacrimal stent and 25 patients underwent DCR without stenting. The demographic data, post operative patency, duration of operations and post op complications were evaluated.

Results : The EDCR without stenting showed higher patency result post operatively, compared to the group with stenting (95.9% vs 80.7 %). Apart from that, the operative time

taken for non stenting group are shorter and post operative complications, especially formation of granulation tissue and pain is statistically less than the stenting group.

Conclusion : EDCR without stenting has higher patency rate, shorter operation time and lower post operative complications.

Prof. Dr. Dinsuhaimi Sidek : Supervisor
Dr. Shamim Ahmad Khan : Co-Supervisor
Dr. Zulkifli Yusof

.....
THE VALUE OF ROUTINE PORTABLE CHEST RADIOGRAPH OF PATIENTS IN INTENSIVE CARE UNIT (ICU).

Dr. Hamzah Ahmad
MMed Radiology

Department of Radiology,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction : Since the advent of ICU set up, there has been two schools of thought regarding the usage of routine portable chest radiograph in critically ill patients. One school of thought says that routine portable CXR will give a significant number of unsuspected findings while the other claimed that it just increased radiation dose to the patient and little benefits obtained. At present, two standards of care have evolved, one using routine CXR and the other using clinically indicated CXR. In Hospital Universiti Sains Malaysia (HUSM), some of our ICU physicians practised routine CXR particularly in cardiopulmonary disease with some modification while some of them requested CXR when clinically indicated. Our study aim is to determine the diagnostic and therapeutic efficacy of routine chest radiographs in ICU HUSM.

Patient and Methods : This study was a cross sectional design conducted in HUSM starting from October 2006 till March 2007. 1016 CXRs were obtained within the study period and 501 portable CXRs were included in this study. The CXR were analysed and divided into routine and non routine groups. The CXR findings were recorded. The images were reviewed by a trainee radiologist using GE Pathspeed Diagnostic Workstation in the department of radiology. Approval from the Research Board Committee was obtained prior to study.

Results : Fifty five (17.3 %) CXRs showed new lesions or significant abnormality in routine group, compared with 132 (72.1 %). There was a significant difference of detecting new lesion between routine and non routine with p value of 0.001. The CXR with new findings that resulted in an intervention was significantly higher in non routine compared to the routine groups, 68.9 % and 9.4 % respectively with p value of 0.001.

Conclusion : The non routine protocol yielded better diagnostic and therapeutic efficacy than routine CXR. The use of routine CXR is not cost effective. It resulted in an increased radiation dose to the patient with only little benefits.

Assoc. Prof. Dr. Haji Abdul Kareem : Supervisor
Assoc. Prof. Dr. Mohd Ezane Aziz : Co-Supervisor

.....
OUTCOME OF FRACTURE NECK OF FEMUR TREATED BY REPLACEMENT SURGERY IN THE ELDERLY

Dr. John Decruz
MMed Orthopaedics

Department of Orthopaedics,
School of Medical Sciences, Universiti Sains Malaysia,

Health Campus, 16150 Kelantan, Malaysia

Introduction : In the new millennium we expected to see significant increase in life expectancy, hence an increase in elderly population. Osteoporotic related fractures such as femoral neck fractures are expected to be on the rise in incidence and carry significant morbidity and mortality. The incidence of hip fracture in Malaysia is 88 and 218 per 100,000 men and women respectively (NOF, 2005). The optimal surgical treatment of displaced femoral neck fractures in elderly with Osteoporosis remains controversial. Surgical options include prosthetic replacement (arthroplasty) and internal fixation. Arthroplasty options include hemiarthroplasty, bipolar arthroplasty, and total hip arthroplasty. The mortality rate ranged from 14% - 30% in the first year (Kenzora 1984). The decision of whether to internally fix or replace a displaced femoral neck fracture is based on life expectancy, the presence of chronic disease, bone quality, and level of function at the time of fracture, as well as on expected function.

Patients and Methods : A retrospective study to assess the outcome of traumatic fracture neck of femur in the elderly aged above 65 years, from 1st January 2001 to 31st December 2005 treated by replacement arthroplasty (Unipolar or Bipolar Hemiarthroplasty), was conducted in Hospital Universiti Sains Malaysia. Outcome was scored via follow up at Orthopaedic clinic or telephone interview from the patient or primary care giver using the Harris Hip score (Appendix 2). Prevalence of Osteoporosis in these patients was also reviewed using Singh Index (Appendix 3). There were 45 cases of traumatic neck of femur fracture treated with hemiarthroplasty or Bipolar Hemiarthroplasty that met the criteria for this study. All parameter was analysed using SPSS Version 12.0.1(2007). All data obtained from this study underwent descriptive analysis with regards to sociodemographic pattern.

Results : The mean age was 75.13 years (range, 65 to 89 years). There were 39 women (86.7%) and 6 men (13.3%). Out of these 45 patients, 15 (50 %) had returned to their pre-morbid ambulatory status. Functional Outcome, 7(15.6%) patients obtained a Harris Hip Score of excellent (90-100), 13(28.9%) obtained a score of good (80-89), and 11(24.4%) obtained a score of fair (70-79), 3(6.7%) obtained a score of poor (60-69) and 1 (2.2%) obtained scores of failed (<60), 6 represented (22.2%) patients who were not amenable for scoring. A total of 68.9 % of patients had a cumulative fair HHS score, which represented good functional outcome. Patients who had Bipolar replacement had better functional outcome. 11 out of 16 patients returned to their pre-morbid status of being community ambulators and fared well in the Harris Hip Scores. Patients who were walking independently before trauma had a better outcome than those who needed aid to walk. Only half (50%) of the patients who were initially community ambulators returned to their pre-morbid status. The degree of osteoporosis was assessed using the Singh index. 33 patients (73.3%) had significant established osteoporosis with Grade 1 (2 patients), Grade 2 (9 patients) grade 3 (22 patients) respectively. Within 1 month of surgery 2 (4.4 %) patients had died and subsequently 7 (15.6%) had died after 1 year post operatively.

Conclusion : The functional outcome of Hemiarthroplasty was 68.9% of patients obtaining good results which is acceptable and among these cases patients who underwent Bipolar Hemiarthroplasty showed better outcome with 68.75% having excellent to good outcome as compared to Unipolar Hemiarthroplasty. 11 out of 16 cases had returned to their pre-morbid status as community ambulators. Post operative functional outcome in terms of ambulation showed 50 % of patients returning back to their pre-morbid ambulatory status. There was a definite correlation between the incidence of

fracture neck of femur and Osteoporosis. In this study, 73.3 % of patients showed evidence of established Osteoporosis. This would support the decision to choose Replacement Arthroplasty rather than Internal fixation in Garden type 3 and 4. The mortality rate in this study was 15.6 % within the first year of operation which is within an acceptable range as compared to other studies which rates was as high as 30 %.

Assoc. Prof. Dr. Wan Faisham Nu'man Wan Ismail: Supervisor
Assoc. Prof. Dr. Imran Yusof : Co-Supervisor

.....
THE PREVALENCE AND RISK FACTORS FOR IN-HOSPITAL MORTALITY AMONG COPD PATIENTS ADMITTED TO HOSPITAL UNIVERSITI SAINS MALAYSIA

Dr. Ku Noraisikin Ku Ali
MMed Internal Medicine

Department of Internal Medicine
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, Kelantan, Malaysia.

Introduction : Chronic Obstructive Pulmonary Disease (COPD) is still one of the leading causes of morbidity and mortality worldwide and it is the only disease which is showing increasing trend of mortality. However, the factors that determine the outcome of patients with COPD are still poorly understood, therefore it is very important to identify factors that influence patient's survival in order to plan for effective treatment strategy in reducing the morbidity and mortality.

Objectives : The primary objective for this study is to estimate the prevalence of in-hospital mortality of COPD patients admitted to Hospital Universiti Sains Malaysia (HUSM). The secondary objective is to determine the risks of mortality among COPD patients who had been admitted to HUSM.

Patient and Methods : A total results of 324 patients were recruited into this retrospective observational study. The prevalence of in-hospital mortality of COPD patients is 26.1%. The commonest cause of death was acute exacerbation of COPD which contribute 41% of total mortality, and the second commonest cause of death was cardiac related death (33%). The factors that had been identify to increase the risks of mortality in COPD after adjustment with multiple logistic analysis are smoking, duration of the disease, number of ICU admission, presence of pneumonia, level of serum albumin and the level of carbon dioxide arterial tension (pCO₂).

Conclusion : The mortality rate of COPD patients is high and the mortality risks are smoking, duration of disease, number of ICU admission, presence of pneumonia, level of serum albumin and the of carbon dioxide arterial tension (pCO₂).

Dr. Che Wan Aminud-din Hashim : Supervisor
Dr. Shaharudin Abdullah : Co Supervisor

.....
A PROSPECTIVE STUDY ON THE OUTCOMES OF IN-HOSPITAL CARDIAC ARREST (IRA) CASES RECEIVING CARDIOPULMONARY RESUSCITATION (CPR) IN TWO TERTIARY HOSPITALS IN MALAYSIA.

Dr. Kwanhathai Daring Wong
MMed Emergency Medicine

Department of Emergency Medicine,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction : Resuscitation medicine is an integral part of acute emergency care. The advancement in this field has led to evidence-based international guidelines on the practice of CPR which has improved and standardized its practice. Coupled with the usage of the Utstein style to report on outcomes of CPR, this has further enhanced increasing standardized research in this arena. However, it remains to be proven whether these results of research mainly from other countries is applicable to our local population. There is currently a severe lack of CPR research in Malaysia. This study aimed to tackle this by investigating the rates of survival outcomes for in-hospital cardiac arrest (NA) in our population. This study also served as a starting point to hopefully create a database that other centers in the nation would be able to add on to.

Objectives : The objective of this study was to determine the outcomes of CPR in In-Hospital Cardiac Arrest (IH-CA) cases. The endpoints were looking at the success rate of achieving ROSC (return of spontaneous circulation), immediate survival (ROSC at least 20 minutes), 24-hour survival and survival-to-hospital discharge. Another objective is to identify any factors that could lead to the improvement in these endpoints.

Patients and Methods : This is a prospective study using convenient sampling. It was conducted from March, 2007 until December, 2007. The standard Utstein in-hospital CPR reporting form was distributed to all locations involved in this study and a briefing was given to all the staff involved in these areas at the beginning of the study. Any case of IHA requiring CPR in these areas was then included into the study and a member of the primary resuscitating team would fill in the form. The forms were then collected and the follow up of the patients that survived were then conducted until the patients were discharged from hospital or passed away in hospital.

Results : In this study, survival outcomes for IHA receiving CPR obtained were a rate of ROSC of 61.2% (n=60), immediate survival rate of 38.8% (n38), 24-hour survival of 14.3% (n14) and a survival-to-discharge rate of 8.16% (n=8). The mean age of the study population was 50 years and 59% were in the middle-age range of 40 to 70 years. The males outnumbered females by a ratio of 2.1: 1. Majority of IHA events were monitored (91%) and witnessed (99%). The main immediate causes of arrest were hypotension (41.8%), myocardial infarction (19.4%) and respiratory depression (17.3%). When divided into cardiac causes versus noncardiac, the percentages were 29.6% vs 70.4% respectively. The time from collapse to CPR was less than 1 minute in 76.5%. The initial rhythms detected at IHA were bradycardia (n=31), asystole (n=28) and PEA (n=27). The immediate survival of day time versus night time IHA was 45.6% vs 29.3%. The other survival rates were not affected by time of IRA. The only significant factor associated with 24-hour survival and survival-to-discharge was having a shockable rhythm at time of arrest.

Conclusion : In conclusion, the survival outcomes for IRA with CPR obtained were a rate of return of spontaneous circulation (ROSC) of 61.2% (w'60), immediate survival rate of 38.8% (n=38), 24-hour survival of 14.3% (n14) and a survival-to-discharge rate of 8.16% (n8). A shockable rhythm at the time of IHA was the only significant factor to affect outcomes.

Assoc. Prof. Dr. Nik Hishamuddin Nik Ab. Rahman : Supervisor
Assoc. Prof. Dr. Rashidi Ahmad : Co-Supervisor

.....
A COMPARISON OF SUTURING TECHNIQUE FOR REPAIR OF EPISIOTOMY A RANDOMISED CONTROL TRIAL OF MALAY PRIMIGRAVIDAE IN HOSPITAL UNIVERSITI SAINS MALAYSIA KOTA BAHRU, KELANTAN, MALAYSIA.

Dr. Maizun binti ishak

MMed O & G

Department of O & G,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objective : To determine the outcome of episiotomy repair between 2 suturing techniques – continuous subcuticular technique and transcutaneous interrupted technique among Malay primigravida.

Patients And Methods: A 6 months prospective randomized study was done on 200 Malay primigravida in Hospital Universiti Sains Malaysia, Kubang Kerian, Kelantan, who had spontaneous vaginal delivery (SVD) from August 2005 till January 2006. This study was conducted to compare the outcome of two suturing techniques where continuous subcuticular technique and transcutaneous interrupted were analysed technique. The outcome measured were perineal pain at 24 hours, 10 days and 3 months and also dyspareunia after 3 months post-delivery.

Results : A total of 200 patients (100%) were able to be reviewed at 24 hours, 148 patients (74%) at day 10 and 131 patients (65.5%) were reviewed at 3 months post-delivery. There was significantly less time taken to repair episiotomy in subcuticular continuous technique compared with transcutaneous interrupted technique (17.2 mm vs 24.8 min, $p < 0.05$). However, there was no significant difference in perineal pain score at 24 hours (2.4 vs 2.3, $p = 0.674$), 10 days (2.3 vs 2.6, $p = 0.361$) and 3 months (1.3 vs 1.3, $p = 0.728$) post-delivery. There was no difference in dyspareunia at 3 months post-delivery review in both groups ($p = 0.33$). The perineal pain at 24 hours was significantly correlated with episiotomy length after repaired ($r: -0.185$, $p = 0.009$) However, there was no significant difference in pain on ambulation at 24 hours ($p = 0.487$) and 10 days ($p = 0.712$), use of analgesia at 24 hours ($p = 0.841$), 10 days ($p = 0.909$) and 3 months ($p = 0.334$) post-delivery. There was no difference in urinary or bowel problems for both groups at 24 hours and 10 days ($p > 0.05$). There was no statistically significant difference in wound morbidity of both group studied at 24 hours and 10 days post-delivery ($p > 0.05$)

Conclusion : Subcuticular continuous technique should be given as an option when repairing an episiotomy. Even though there was no reduction in the symptoms of perineal pain and dyspareunia, this method significantly required less repairing time.

Assoc. Prof. Dr. Nik Mohamad Zaki : Supervisor

.....

A RANDOMIZED CONTROLLED TRIAL OF PARENTERAL GLUTAMINE IN NEWBORN RECELVING TOTAL PARENTERAL NUTRITION (TPN) IN HOSPITAL UNIVERSITI SAINS MALAYSIA (HUSM)

Dr. Mohamad Ikram Ilias
MMed Paediatrics

Department of Paediatrics,
School of Medical Sciences, Universiti Sains Malaysia, Health
Campus, 16150 Kelantan, Malaysia.

Introduction : Glutamine is a conditionally essential amino acid. Addition of glutamine in TPN of critically ill adults causes a reduction of complications such as infection. In neonates however, no clear benefits of addition of glutamine to TPN were shown in a limited number of studies, mainly performed in high income countries.

Objectives : The addition of glutamine to standard TPN in neonates in HUSM, Malaysia was studied to see if it would

improves selected neonatal outcomes.

Patients and Methods : This was a double blinded randomized controlled trial. Babies admitted to the NICU during the 1-year study period, requiring TPN were eligible for inclusion. Subjects were randomized either to receive glutamine added TPN (intervention) or standard TPN (control). Primary outcome measures included time taken to reach full enteral nutrition, incidence of sepsis and NEC, time taken to achieve extubation, and time to discharge from NICU.

Result : Out of 270 subjects included in the study 132 were randomized to the intervention group and 138 to the control group. There were no significant differences between the two groups in terms of baseline data. The median time taken to reach full enteral nutrition was similar for both intervention and control group (6 days in each group, $p = 0.52$). The time taken to achieve extubation was also similar in both groups (2 days in each group, $p = 0.76$). The incidence of necrotising enterocolitis in the intervention group was slightly lower than for the control group but the difference was not significant (5.8% vs. 7.1% $p = 0.68$). The incidence of clinical sepsis and culture proven sepsis was also not significantly different in the intervention and the control group (15.7% vs 10.2%, $p = 0.21$ and 16.5% vs 15.7%, $p = 0.38$ respectively). Sub-group analysis for preterm and term babies for the same outcomes also showed no statistically significant differences

Conclusion : Addition of glutamine to TPN for neonates was not shown to improve outcome.

Assoc. Prof. Dr. Hans Van Rostenberghe : Supervisor
Prof. Dr. Quah Ban Seng : Co-Supervisor
Dr. Noraida Ramli

.....

COMPARISON FOR EASE OR INSERTION FOR LARYNGEAL MASK AIRWAY BETWEEN TRENDELENBURG AND SUPINE POSITION FOR ELECTIVE ORTHOPAEDIC, SURGICAL AND GYNECOLOGY SURGERY

Dr. Mohd Nazri Bin Ali
MMed Anaesthesiology

Department of Anaesthesiology,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objectives : The purpose of this study is to assess the ease of insertion of the Laryngeal Mask Airway (LMA) between supine and trendelenburg position in the elective Gynecology, Orthopedic and General surgery patient.

Patients and Methods : We measured easiness of insertion, incidence of adverse respiratory complication and hemodynamic response to LMA insertion. A randomized single blinded prospective study was conducted involving a total of 92 premedicated, ASA 1 or 11 patients, aged 18 to 65 years and were divided into 2 groups either insertion in supine or trendelenburg position. After a standardized induction of anesthesia with Fentanyl 1.5 mcg/kg and propofol 2 mg/kg, a size 3 or 4 Laryngeal mask airway was inserted and the patient breathe spontaneously through the surgery with no muscle relaxant given. Anesthesia was maintained with nitrous oxide, oxygen and sevoflurane. The LMA was removed at the end of surgery with the patient fully awake. The speed and ease of insertion and the number of attempts needed to successfully secure airway were recordal. The incidence of adverse respiratory complications like sore throat, presence of blood on LMA, laryngospasm, coughing, vomiting and desaturation was recorded. Hemodynamic changes such as systolic blood pressure, diastolic blood pressure, mean arterial pressure and

heart rate at the different time interval were recorded.

Results : We found that there was no statistically significant difference in time required for successful insertion and number of attempts for both group. We were able to insert LMA at first attempt in 73.9% within 20.20 seconds in trendelenburg position. There were no differences in incidence of adverse airway complication both in supine and trendelenburg position. Both groups had no statistical differences in hemodynamic parameters during spontaneous ventilation under anesthesia except systolic blood pressure and mean arterial pressure just after LMA insertion, which had statistically significant.

Conclusion : We concluded that, insertion of the LMA in trendelenburg position is appropriate provided with a good experience and proper patients selection and strongly indicated in the scenario of fail intubation and ventilation as an alternative to the conventional method of LMA insertion.

Dr. Mahamarowi Omar : Supervisor
Dr. Aisai Abd. Rahman : Co-Supervisor

.....
MULTIMODALITY ASSESMENT OF MILD AND MODERATE HEAD INJURY PATIENTS: AN ANALYSIS

Dr. Nasser Abdul Wahab
MSurg Neurosurgery

Department of Neuroscience,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objective : The aim of this research was to compare the disability that may be proven using the analysis of the BNI [Barrow Neurological Institute] Screen for Higher Cerebral Functions, disturbance in balance control, sensory perception and presence of nystagmography.

Patient and Methods : This was a prospective study conducted from August 2006 till November 2007, where two groups of patients that had sustained mild and moderate head injury were selected. There were patients that would be admitted to or referred to University Sains Malaysia Hospital in Kubang Kerian, Kelantan. The qualified patients would be called within 4 to 6 weeks after the head injury. Their complaints of headache, memory loss, sensory disturbance, gait and visual abnormalities would be taken into the questionnaire. They would be given a battery of test starting with the BNI [Barrow Neurological Institute] Screen for Higher Cerebral Functions, conducted in the local language [Bahasa Malaysia] The test for balance would be conducted by using the SENSORY ORGANIZATION TEST [SOT] using the SMART Balance Master®, [NeuroCom International, Inc. 9570 SE Lawnfield Road Clackamas, OR 97015 USA]. The result would be analyzed on how visual, somatosensory, and vestibular inputs affect a patients ability to maintain functional balance. Nystagmus would be tested by using the VisualEyes Nystagmography. The stimulus would be delivered via a tower, using the VisualEyes tower Nystagmography [Micromedical Technologies, 10 Kemp Drive Chatham, Illinois 62629 United States of America]. The movement of the eye would be followed, recorded and analyzed for abnormalities. The next test would be conducted by using the Computerised Assisted Sensory Evaluator [CASE IV version 4.27.1; WR Medical Electronics Co. 123 North Second Street, 'water, MEN 55082 Minneapolis USA]. Cold detection threshold [CDT], were measured using the 4, 2, and 1 stepping algorithm with null stimuli as described by Dyck et. al, performed on the dorsal aspect of the palm on the left hand. The subjects would the "yes" or "no" buttons depending on whether they felt the stimuli and the computer will calculate the 'just noticeable

difference" [JND] from the subject's

Result : The result of the research would be calculated using the SPSS software version 12.0 [2003] 11 patients were male [91.67%] and 1 female [8.33%]. The age of the patient recruited into this study ranges from 18 years to 63 years [45 years] with a mean age of 33.25 years and median of 29.00 years. Among the number of patients admitted for the study, majority belongs in the moderate head injury category [75%]. The mode of injury sustained in our study comes from motor vehicle accident [100%]. In our study, patients in the mild head injury category have a higher BNI score and compared to those in the moderate head injury group. The mean score of the patients in the mild head injury group have a mean score of 45.00 as compared to 43.11 in the 0thoderate head injury group. The BN1 sub-test score of these patients also indicated that the mild head injury patients' scores were higher than to moderate head injury although it statistically irrelevant [Mann-Whitney test]. In particular, the mean scores were noted higher in total score of BNI, and it's sub-score particularly speech and language, attention/concentration, visuospatial and visual problem solving, and memory. statistically however, none of these observed values were significant. In our study, we failed to disclose any evidence to support that moderate head injury has significant disturbance of balance. Both groups of patients had normal balancing reflex on testing the computerised posturography. There was no significance sensory disturbance noted between groups of patients. The Mann-Whitney test concluded no significance [p= 0.67]. In our study also, we failed to show any evidence of post-traumatic Nystagmography. This was in conclusion made by Mallinson, et in 1995 that ENG was rarely helpful diagnostically in head-injured group [trauma group].

Conclusion : From the test conducted, we concluded that the disability that could be demonstrated in patients with complaint of forgetfulness and lack of concentration cannot be demonstrated by using the BNI [Barrow Neurological Institute] Screen for Higher Cerebral Functions. Other tests done in this study, failed to prove any significant result. Therefore cause and effect of post-concussive syndrome can only be diagnosed by clinical diagnosis.

Prof. Dr. Jafri Malin Abdullah : Supervisor

.....
SLEEP DISORDERS AMONG CHILDREN ATTENDING THE PAEDIATRIC CLINIC IN USM HOSPITAL.

Dr. Nazzlin Dizana Din
MMed Pediatrics

Department of Pediatrics,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia

Objectives : To evaluate the frequency of sleep disorders among children attending the pediatric clinic in USM Hospital.

Patients and Methods : The Sleep Disturbance Scale for Children (SDSC) consisting of 26 items which concentrates on six sleep disorders, Disorder of Initiating and Maintaining Sleep (DIMS), Sleep Breathing Disorder (SBD), Sleep Wake Transition Disorder (SWTD), Sleep Hyperhydrosis (SHY), Disorder of Arousal (DA), Disorder of Excessive Somnolence (DOES), was translated to Bahasa Malaysia. Parents of children aged 4-16 years attending the paediatric clinic, USM Hospital from December 2005 to February 2008 were requested to complete the SDSC while awaiting consultation.

Results : Among 684 children from 8 sub-specialty clinics who completed the SDSC, there were 361 (52.8%) boys. The number

(%) of children in each age group was as follows: 6-12 years old (462, 67.5%), 4-5 years old (86, 12.6%), more than 12 years old (136, 19.9%). Sixty-three (9.2%; 95% CI 7.3% to 11.6%) children had a significant total sleep problem score. The proportion of children with specific sleep disorders were as follows: 64 (9.4%) DIMS, 55 (8.0%) SBD, 31(4.5%) SWTD, 27 (3.9%) SHY, 31(4.5%) DA, and 57 (8.3%) DOES. Regression analysis revealed that the frequency of SBD (p=0.01) and SWTD (p=0.03) was significantly different among subspecialty clinics, and children aged more than 12 years had a significantly higher prevalence of DOES (p=0.03) than other age groups. No significant gender differences were observed.

Conclusion : Sleep disorders were relatively high among children attending the paediatric clinic in USM Hospital. Given the impact of sleep disorders on children and families, there is a need for increased awareness of children's sleep problems in the clinics and community.

Prof. Dr. Quah Ban Seng : Supervisor
.....

THE EFFICACY OF INTRAVITREAL TRIAMCINOLONE VERSUS ASER PHOTOCOAGULATION IN THE PRIMARU TREATMENT OF DIABETIC MACULAR OEDEMA

Dr. Norlaili Mustafa
MMed Ophthalmology

Department of Ophthalmology
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, Kelantan, Malaysia.

Objective: To compare the efficacy and safety of intravitreal triamcinolone injection to laser photocoagulation in the primary treatment of diabetic macular oedema.

Patients and Methods: Forty patients with newly diagnosed diabetic macular oedema were randomized into 2 groups 20 in 4mg intravitreal triamcinolone acetate (IVTA) injection of and 20 in laser photocoagulation group. Evaluation was done at three months and the macular oedema was quantified using HRT II. Intraocular pressure elevation, lenticular opacity and endophthalmitis were observed.

Results: Mean visual acuity for PITA group was 0.935(0.223) at baseline and 0.405(0.223) at three months, p<0.01. Mean visual acuity for laser group was 0.795(0.3 15) at baseline and 0.525(0.289) at three months, p<0.01. However, there was no statistically significant difference between the two groups, p=0. 151. Mean macular oedema index for IVTA group was 2.539 (0.914) at baseline and 1.753 (0.577) at three months, p<0.01. Mean macular oedema index for laser group was 2.139 (0.5 77) at baseline and 1.711(0.472) at three months, p<0.01. However, there was no statistically significant difference between the two groups (p=0.81 1). The mean intraocular pressure was statistically significant pre and post IVTA injection (p=0.032). There was no significant cataract progression at three months in both groups, p0.688 and no incidence of endophthalmitis post IVTA injection at three months review.

Conclusion: Both PiTA and laser photocoagulation demonstrate good outcome as primary treatment in diabetic macular oedema patients. The IVTA is a relatively safe procedure.

Dr. Zunaina Embong : Supervisor
Dr. Bakiah Shaharuddin : Co-Supervisor
.....

THE RETROSPECTIVE STUDY OF IN HOSPITAL TIME MANAGEMENT OF ACUTE STROKE PATIENT IN THE

EMERGENCY DEPARTMENT HOSPITAL KUALA LUMPUR

Dr. Norzilah Abu Zaharin
MMed Emergency Medicine

Department of Emergency Medicine,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction: The Emergency Department Hospital Kuala Lumpur commonly receives cases of patients presented with signs and symptoms of acute stroke in which majority of them are send for CT Brain for confirmation of diagnosis. However in a case of acute ischaemic stroke none of them had been given fibrinolytic therapy or r-tpa in which assumption made that the patient had missed the beneficial period of the therapy which is within 3 hours from the onset of symptoms.

Objectives: The objectives of the study are to analyse the in-hospital time taken for stroke patients when arrives in the Emergency Department until the diagnosis of stroke is confirmed. This will include the time interval from door to medical consultation, door to CT scan performed till door to CT scan film interpreted. Besides this the time of symptoms onset is also studied as well as the demographic profile of the stroke patients. The association between the demographic factor and stroke risk factors with the time of hospital arrival is also include in the study.

Patients and Methods: A total of 200 patients were involved in the study. All subjects were those age more than 18 years old who presented to the emergency department with the signs and symptoms of acute stroke and had CT brain done. The data analyse will be collected retrospectively through case notes in which the detail of the patients, demographic factor, history of presenting complaint, past medical history, social history, time documentation when seen by doctor till CT film interpretation will be reviewed. In this study the data analysed are stroke patients presented to the Emergency Department Hospital Kuala Lumpur in a period of 1 year from 1st April 2007 until 31st March 2008

Result: From 200 patients 42% of them are Malay followed by Chinese (36.5%), Indian (18.5%) and others (3.0%). Male accounted for 65% while female accounted for 35%. The mean age was 58.3 years old with 58.5% were more than 55 years old. The CT brain finding shows infarct in 42.5% of patients, normal CT fmding accounted for 39% and haemorrhagic stroke in 18.5% of patients. The percentage of patients who arrived more than 3 hours from the onset of symptoms was 73% while less than 3 hours was 27%. Most of the patient is triaged to the yellow zone which accounted for 45.5%, followed by the green zone which is 41.5% and the red zone (13%) . As for the in-hospital time analysis, it is found that the mean time interval for door to medical consultation is 24.2 minutes and the mean time interval for door to CT is 52.3 minutes. Hypertension occurs highest most among the patients (52.5%) followed by diabetes (41.5%), family history of stroke (23%), smoking (21%), ischaemic heart disease (14.5%), previous history of stroke (8%) and hyperlipidaemia (3.5%). There is a significant association between time of hospital arrival and age in which pvalue is less than 0.05. The significant independent predictors for time of hospital arrival is age (OR 1.83,95% CI 0.958,3.502), Hypertension (OR 1.99,95% CI 0.989,3.906) and ischaemic heart disease (OR 0.424,95%CI 0.174,1.036).

Conclusion: 73% of stroke patients arrives late to the Emergency Department Hospital Kuala Lumpur. There is also an in-hospital delay in which may jeopardise the chance of patient for fibrinolytic therapy. Critical pathway might need to be structured in the emergency department to overcome the delay, hence improving the care of stroke patient.

Assoc. Prof. Dr. Nik Hishamuddin Nik Ab. Rahman : Supervisor
Dr. Mahathar Abd. Wahab : Co-Supervisor

STUDY OF PREVALENCE OF URINARY INCONTINENCE AMONG WOMEN AGE MORE THAN 45 YEARS ATTENDING GYNAECOLOGY CLINIC, HUSM

Dr. Puspa Marlinda Omar
MMed O & G

Department of O & G,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objective: The prevalence of urinary incontinence and its associated factors amongst the population of women more than 45 years attending the gynaecology clinic were studied

Methodology: The study design was prospective, which was done from May 2006 until October 2006 in the Gynaecology Clinic, Hospital Universiti Sains Malaysia, Kubang Kerian, Kelantan.

Patients and Methods: All women age 45 years and above who attended the Gynaecology Clinic for various gynaecological problems who fulfil the inclusion and exclusion were taken. They were given a questionnaire and physical examination performed. If they were found to have the incontinence, urodynamic study was performed to confirmed the diagnosis.

Results: The overall prevalence of urinary incontinence is 32.7%. The prevalence of stress incontinence is 24% (95%CI=18.0%, 30.0%), urge incontinence 5.1% (95% CI= 2.0%, 6.2%) and mixed incontinence 3.6% (95% CI= 1.0%, 6.2%). From this study, it was found that 64 participants were clinically diagnosed having urinary incontinence from the questionnaire. Factor that is found to be associated with stress incontinence is cystocele where the p value is 0.0000, largest birth weight is significant with urge incontinence (p value <0.001) and age, perineal tear and largest birth weight is significant with mixed incontinence where p value is 0.020, 0.018 and 0.004 respectively. From 64 participants who had urinary incontinence, only 45.3% of them underwent confirmatory CMG test. Out of these 64 participants having urinary incontinence, 29(45.3%) cases perform CMG. Out of the 29 who perform CMG, 15 cases was positive(51.7%).

Conclusions: This study showed that overall prevalence of urinary incontinence is 32.7%. The prevalence of stress incontinence is 24% (95%CI=18.0%, 30.0%), urge incontinence 5.1% (95% CI= 2.0%, 6.2%) and mixed incontinence 3.6% (95% CI 1.0%, 6.2%) It was found that the associated factor that contribute to urinary incontinence are cystocele, largest birth weight, age and perineal tear.

Dr. Mohd. Pazudin Ismail : Supervisor
Dr. Wan Abu Bakar Yusof : Co-Supervisor

NASAL AIRWAY ANALYSIS USING 3-DIMENSIONAL SOFTWARE AMONG THE NORMAL SUBJECTS IN HOSPITAL UNIVERSITI SAINS MALAYSIA, KELANTAN

Dr. Ramiza Ramza Bin Ramli
MMed ORL

Department of ORL-HNS,
School of Medical Sciences, Universiti Sains Malaysia, Health Campus, 16150 Kelantan, Malaysia.

Introduction: In order to function well the nasal patency plays a major role to bring in inspired air and release the expired air. The patency of the nasal cavity can be assessed by variety of methods, ranging from simple subjective measurement such as visual analogue scale to more accurate objective measurement such as acoustic rhinometry. Acoustic rhinometry (AR) is the recommended technique for assessment of the nasal geometry. it quantifies subjective symptoms of nasal obstruction into an objective assessment of nasal patency. 3D software is capable in converting the data from AR (2D) into a 3-Dimensional image and this will provide a new prospect in how nasal patency can be measured and evaluated.

Objectives: The objective of this study was to convert the normal values of the Minimal Cross-sectional Area (MCA) and nasal volumes collected using Acoustic Rhinometry and analyze using the 3D software. This study also analyzed the differences between MCA and nasal volumes of male and female collected by the AR and 3D software.

Patients and Methods: This was a cross sectional study of healthy volunteer adult subjects ranging between the age of 18 years old to 70 years old, comprising of 75 males and 75 females Otorhinolaryngology Head and Neck clinic, Hospital Universiti Sains Malaysia (HUSM), Kubang Kerian, Kelantan. A written consent was taken from the candidates after the aim and methodology as well as the procedure was explained to the candidates. A primary assessment with thorough history, systematic ear, nose and throat (ENT) examination, including rigid nasoendoscope was included and performed to each subjects. Later the subjects were examined using the AR scan. The AR scan that was be used was the SR100 (RhinoMetric, Denmark). The Acoustic rhinometry was performed following the standard procedure as described in the literature. The data was analyzed using paired T-test with p-value less than 0.05 was considered to be significant.

Results: In this study, the mean MCA1 for males were 0.49 ± 0.14 cm² and females 0.42 ± 0.16 cm². For the nasal volume of MCA, V1 for males were 3.46 ± 1.28 and for females were 2.9 ± 0.98 cm². In 3D analysis the results also showed that the adult male nasal airway is significantly different from female teenagers (p=0.00), female adult (p0.00) and male teenager (p=0.004) on both the left and right nostril. There is also no significant correlation between MCA and BMI.

Conclusion: The male nasal airways differ from the female nasal airways on both the left and right nostrils. These results were produced by the Acoustic rhinometry software and also by the 3D software. The 3D software showed that the male adult nose differs from the female (adult and teenager) and even the male teenager. The male nasal airway is narrower at the anterior nasal valve and wider distal to nasal valve. Acoustic rhinometry is a valuable method of assessing geometry of nasal cavity. 3-Dimensional software can be used with AR in enhancing the data and making it more useful in diagnosis, treatment planning and ongoing post treatment or surgery.

Dr. Shamim Ahmed Khan : Supervisor
Prof. Dr. Dinsuhaimi Sidek : Co-Supervisor
Prof. G.D. Singh

A STUDY OF CONTRAST SENSITIVITY AND QUALITY OF LIFE FOLLOWING PHACOEMULSIFICATION WITH TWO DIFFERENT TYPES OF ASPHERIC LENSES

Dr. Rohana Ab. Rashid
MMed Ophthalmology

Department of Ophthalmology,
School of Medical Sciences, Universiti Sains Malaysia,

Health Campus, 16150 Kelantan, Malaysia.

Introduction: Aspheric lens has emerged as a new landscape of intraocular design in order to provide a better quality of vision. Measurement of contrast sensitivity and vision related quality of life would assess the optical and visual performance of these aspheric lenses.

Objectives: To compare the visual acuity, contrast sensitivity and vision related quality of life following phacoemulsification and implantation of two aspheric lenses among age related senile cataract patients attending ophthalmology clinic in Hospital Universiti Sains Malaysia, Kubang Kerian and Hospital Raja Perempuan Zainab II (HRPZ II), Kota Bharu, Kelantan.

Patient and Methods: A total of 112 eyes of 112 patients were randomized to receive either Akreos Adapt Advanced Optic (n=61) or Tecnis Z9003 (n=51). Patients were selected according to the inclusion and exclusion criteria. At 3 months postoperative period, patients were assessed for contrast sensitivity under photopic and mesopic using CSV 1000 and modified VF-14 questionnaires was used to assess the vision related quality of life. Comparison of means of each parameter was made between the intraocular lenses Data analyzed by either Chi-square or independent t test with p value less than 0.05 was considered significant The vision related quality of life using the VF-14 scores were further divided into near vision, intermediate vision and distant vision items.

Results: The mean visual acuity and contrast sensitivity in photopic and mesopic lighting at 3, 6, 12 and 18 cpd showed very similar results in Akreos Adapt AO and Tecnis Z9003. There was no significant difference between the two intraocular lenses. The VF-14 scores in Akreos Adapt AO has a mean of 98.57 (2.51) whereas the Tecnis Z9003 has a mean of 97.18 (5.46). The total quality of life scores also revealed no significant difference.

Conclusion: Postoperative visual acuity and contrast sensitivity in both intraocular lenses were almost comparable. Neither Akreos Adapt AO nor Tecnis Z9003 showed a significant difference in contrast sensitivity and vision related quality of life at 3 months postoperative period.

Assoc. Prof. Dr. Wan Hazabbah Wab Hitam : Supervisor
Dr. Shatriah Ismail : Co-Supervisor
Dr. Nik Azlan Nik Zaid

MOLECULAR STUDY OF TRANSFUSION DEPENDENT THALASSEMIA PATIENTS WHO ATTENDED PEDIATRIC DAY CARE HOSPITAL UNIVERSIT SAINS MALAYSIA, KELANTAN FROM JANUARY 2006 TO APRIL 2006

Dr. Rozitah Binti Razman
MMed Paediatrics

Department of Paediatrics,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction: Thalassemia has emerged as one of the most common public health problems in Malaysia, particularly among Malaysian Chinese and Malays. This study aims to determine the spectrum of Thalassemia gene mutations found in transfusion dependent Thalassemia patients who attended Pediatric Daycare Unit, Hospital Universiti Sains Malaysia, Kelantan, Malaysia. The findings are important for establishing the prenatal diagnosis in our Human Genome Centre.

Patient and Methods: This was a cross sectional study in which 38 transfusion dependent Beta Thalassemia patients were screened for six different mutations previously shown to

be prevalent in the Malaysian population. Sampel collection was started in January, 2006 till April, 2006. DNA was extracted from leucocytes collected from the peripheral vein, amplified by PCR and digested by six restriction enzymes for detection of mutations. The mutation were correlated with the clinical severity based on the following clinical parameters: age at presentation, pre-transfusion hemoglobin level, mean volume of blood transfusion per kilo body weight per year, spleen size, splenectomy and growth failure were recorded in these patients to determine the severity of each group of thalassaemia type depicted by the mutation. For the statistical analysis, Kruskal-Wallis test and univariate analysis were used.

Results: Five of the six lurown Beta-globin gene defects occurring in the Malaysian population were detected, namely, JVS-l nt5 (G>C), IVS-1 ntl (G>T), Codon 26 (G>A), Codon 4 1-42 (4 bp del) and Codon 19 (A>G). The mutation which was not observed in this study was in Codon 15 (G>A). The two most common mutations observed were Codon 26 (G>A) (54.3%) and IVS-1 nt5 (G>C) (20%). Three patients did not show any of the six mutations. There were no significance different in age at presentation (p=0.23), pre-transfusion hemoglobin level (p=0.2), volume of blood transfusion given to the patient (p=0.42) and also spleen size (p=0.59) between groups of type of Thalassemia.

Conclusion: Our results showed that the majority of Kelantan Beta Thalassemia patients have similar beta-globin gene defects as the rest of the Malaysian population. However, mutations in the three patients were not identified. The findings complement the existing data on the Beta Thalassemia gene mutation in Malaysia.

Assoc. Prof. Dr. Zilfalil Alwi : Supervisor
Dr. Ariffin Nasir : Co-Supervisor

RELIABILITY OF PAIN ASSESSMENT BY PARENTS AND ATTENDING EMERGENCY MEDICAL OFFICERS FOR PEDIATRIC PATIENTS PRESENTING WITH ACUTE PAIN AT EMERGENCY DEPARTMENT HOSPITAL UNIVERSITI SAINS MALAYSIA, KUBANG KERIAN, KELANTAN

Dr. Sarah Shaikh Abdul Karim
MMed Emergency Medicine

Department of Emergency Medicine,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia

Introduction: Pain assessment is the first step towards effective analgesic methods. This is because pain is an individualized sensation and emotion.

Objective: This study was done to assess the agreement of pain severity assessment done by parents or guardians and attending emergency medical officers in a child in terms of inter-rater agreement between parents or guardians, attending EDMO and respective child-patients in pain.

Patients and Methods: This is a single centre cross-sectional study carried out from August 2006 till August 2007 in Emergency Department Hospital Universiti Sains Malaysia. Children between the age of 5 till 1 years old with complaint of acute pain from either trauma or medical causes were enrolled. They were administered either Faces Pain Scale - Revised or Visual Analog Scale for self assessment of pain. Their accompanying parents or guardians and attending Emergency Medical Officers (EDMO) blinded to one another were given Visual Analog Scale to assess respective child-patients pain. The scores obtained was then analyzed to obtain the Kappa value for agreement between the self assessments by the child-patients with that

of parents or guardians and attending EDMOs.

Results: A total of 118 child-patients were recruited from August 2006 to August 2007. Mean pain score by dud-patients is 5.6 (SD \pm 2.7) Mean pain score by parents or guardians was 5.3(SD \pm 2.16) and by attending EDMO 4.5 with (SD \pm 2.19) Kappa value of agreement between pain assessment by parents or guardians with respective child is 0.16 and that between attending DMO with respective child-patient is 0.11.

Conclusion: The study showed that both accompanying parents or guardians and attending EDMOs have Door level of agreement in severity of pain assessment compared to self assessment by respective thud-patients. The level of agreement is good in children above 10 years of age and with trauma-related pain.

Assoc. Prof. Dr. Wan Aasim Wan Adnan : Supervisor
Prof. Dato' Dr. Abu Hassan Asaari Abdullah : Co-Supervisor

.....

THE PREVALENCE AND RISK FACTORS FOR IN-HOSPITAL MORTALITY AMONG COPD PATIENTS ADMITTED TO HOSPITAL UNIVERSITI SAINS MALAYSIA

Dr. Sharil bin Abdul Rahim
MMed Orthopaedics

Department of Orthopaedics
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, Kelantan, Malaysia.

Introduction: Wide resection in Limb Salvage Surgery for primary bone tumors results in segmental osseous defect. The optimum method for reconstruction distal femur and proximal tibia remained controversial. Options include the use of autografts, allografts, custom-made megaprotheses and modular endoprostheses. Endoprosthesis allows early rehabilitation with a good long term functional outcome result. The aim of this study is to evaluate the functional outcome of patient in modular endoprosthetic reconstructions surgery in the treatment of primary bone tumors of distal femur and proximal tibia of the lower limb, by using Musculoskeletal Tumor Society scoring system.

Patients and Methods: Fifty four consecutive patients with primary bone tumor of distal femur and proximal tibia were selected and reviewed to determine the functional outcome after wide resection endoprosthesis reconstruction surgery by using Musculoskeletal Tumor Society scoring system.

Results: There were 34 (63%) cases of distal femur and 20 (37%) cases of proximal tibia bone tumor. The Primary osteosarcoma are 33 (6 1.1%) and stage III GCT are 20 (37%). The mean age is 26.6 \pm 1 0.61. There were 12 (22.2%) patients who had metastasis to the lung. The mean MSTS score for both DF and PT endoprosthesis was 21.13 (70.43%), MSTS score for DF was 21.94 (73.13%) and PT was 19.75 (65.83%) group into good to excellent result. The infection rate was 13% (7 cases) and high in PT endoprosthesis group. The early revision rate of endoprosthesis replacement was 11.1% (6 cases) mainly due to infection (3 cases). Infection and at site of endoprosthesis were the cause of early failure.

Conclusion: Endoprosthesis replacement for primary bone tumors had good to excellence MSTS score. There were no different in functional outcome after distal femur endoprosthesis and proximal tibia endoprosthesis. The cause of early failure in our center following endoprosthesis surgery is infection and the location of endoprosthesis replacement which is a proximal tibia.

Assoc. Prof. Dr. Wan Faisham Nu'Man Wan Ismail : Supervisor

.....

ROLE OF TOPICAL METHICILIN IN VENTRICULOPERITONEAL SHUNT SURGERY – A RANDOMIZED CONTROL STUDY

Dr. Sharon Casilda Theophilus
MSurg Neurosurgery

Department of Neurosciences,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objective: To evaluate the role of methicillin as a topical installation during shunt insertion in ventriculoperitoneal shunt surgery with the aim of reducing the rate of postoperative infection.

Research procedure: A single blinded randomized control study was carried out on all patients who were admitted or referred to the Neurosurgery Department, Sultanah Aminah Hospital Johor Bahru with the diagnosis of Hydrocephalus; a ventriculoperitoneal shunt was indicated. The period of study was from November 2005 to May 2007. The follow up period for this study was of 3 months after surgery. The period of study was considered adequate to access the role of our observation. Randomization was carried out in the operation theatre prior to the procedure. The scrub nurse would pick up a sealed envelope and prepare as stated. That is Group 1 with topical methicillin, Group 2 without topical methicillin. One dose of prophylactic antibiotic, IV Cefuroxime 25mg/kg was given at induction. Stringent operative technique was followed preparing patient and draping. Ethical approval was received JTP/KKM 1- 0805. Statistical analysis was done using SPSS version 12 (2003).

Result: A total of 90 patients were recruited in the study, 13 (14.4%) patients developed infection within 3 months, of this Group 1 had a 8.9% risk of infection and Group 2 had a 20% risk, however statistically there was no significant postoperative VPS infection reduction with the use of topical methicillin in ventriculoperitoneal shunt surgery (p=0.230). Multivariate analysis showed that duration of surgery had a significant influence on the postoperative VPS infection in the non-Methicillin group.

Conclusion: Topical methicillin has no significance in reduction of postoperative VPS infection

Mr. Johari Siregar B Adnan : Supervisor
Dr. Noorazman Abd Rahman : Co-Supervisor

.....

A COMPARISON OF SUTURING TECHNIQUE FOR REPAIR OF EPISIOTOMY A RANDOMISED CONTROL TRIAL OF MALAY PRIMIGRAVIDAE IN HOSPITAL UNIVERSITI SAINS MALAYSIA KOTA BAHRU, KELANTAN, MALAYSIA.

Dr. Stanislaus Djokomuljanto
MMed Paediatrics

Department of Paediatrics,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objective : The addition of low-cost reflecting curtain to a standard phototherapy unit could increase effectiveness of phototherapy for neonatal jaundice was determined.

Patients and Methods : This was randomized controlled clinical trial done in a level one nursery of the Hospital

Universiti Sains Malaysia, Kelantan, Malaysia. Term newborns with uncomplicated neonatal jaundice presenting in the first week of life. Phototherapy with white curtains hanging from the sides of phototherapy unit (study group, n=50) was compared with single phototherapy without curtains (control group, n=47). The primary outcome was the mean difference in total serum bilirubin measured at baseline and after 4 hours of phototherapy. The secondary outcome was the duration of phototherapy.

Results: The mean (standard deviation) decrease in total serum bilirubin levels after 4 hours of phototherapy was significantly (p<0.001) higher in the study group [27.62 (25.24) µml/L] than in the control group [4.04 (24.27) µml/L]. Cox proportional hazard regression analysis indicated that the median duration of phototherapy was significantly shorter in the study group (12 hours) than in the control group (34 hours; change 45.2; p<0.001; hazards ratio 0.20; 95% confidence interval 0.12 to 0.32). No difference in adverse events was noted in terms of hyperthermia or hypothermia, weight loss, rash, loose stools or feeding intolerance.

Conclusion: Hanging white curtains around phototherapy units significantly increase the efficacy of phototherapy in the treatment of neonatal jaundice without evidence of increased adverse effects.

Assoc. Prof. Dr. Hans Van Rostenberghe : Supervisor
Dr. Noraida Ramli : Co-Supervisor
Prof. Dr. Quah Ban Seng

RANDOMISED, DOUBLE BLIND CONTROLLED TRIAL ON PREOPERATIVE ANXIETY LEVEL BETWEEN PREMEDICATED AND NON-PREMEDICATED PATIENTS UNDERGOING ELECTIVE SURGERY

Dr. Vellan S/O Sinnathamby
MMed Anaesthesiology

Department of Anaesthesiology,
School of Medical Sciences, Universiti Sains Malaysia, Health Campus, 16150 Kelantan, Malaysia.

Introduction: Patients should not suffer needless anxiety before surgery.

Objective : This study was aimed to determine the level of anxiety that exist in patients undergoing elective surgical procedure from various departments. Comparison was also made within the various demographical data obtained with specific objective.

Patients and Methods: This was a prospective randomized, double blind controlled clinical trial on preoperative anxiety levels. Patients completed the anxiety assessment scales both before and after intervention. The scale used was Hospital Anxiety and Depression Scale(HADS) The fourteen questions were subdivided to assess anxiety and depression separately. Paired T-test within groups and independent T-test for between groups were used during statistical analysis using SPSS 11.0. A p < 0.05 was considered to be significant.

Results: One hundred and forty scale sets were obtained with no statistically significant difference in demographic characteristic. The interventional group had preintervention mean anxiety score of 8.3 ± 2.3 (mean ± SD) and post-intervention mean anxiety score of 3.3 ± 1.8 with p = 0.000 where the placebo group had preintervention score of 8.9 ± 2.3 and post-intervention score of 10.24 ± 2.9 with p0.001. Differences were also seen in mean anxiety score with ethnicity, gender, ASA class (American Society of Anesthesiologist) and type of operation.

Conclusion: In this study, it was found that significant level of anxiety existed preoperatively and premedication reduced it's level significantly. The placebo group had the highest level of anxiety and its level increased even more immediately before surgery. In addition, female patient, ASA 11 and patients undergoing gynaecological surgery had higher level of anxiety.

Assoc. Prof. Dr. Saedah Ali : Supervisor

A COMPARATIVE STUDY ON THE OUTCOME OF RECONSTRUCTION WITH AUTOGENOUS GRAFTS VERSUS POROUS POLYETHYLENE (MEDPOR) IN HOSPITAL UNIVERSITI SAINS MALAYSIA FROM 2004-2007

Dr. Wahid Abdullah Salem Wajih
MMed Ophthalmology

Department of Ophthalmology,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Objective: To determine the difference in surgical outcomes of orbital floor reconstruction between the use of two different reconstructive materials.

Patients and Method: All patients who underwent orbital floor reconstruction in the study period were divided into two groups according to the materials used for the grafts. All patients underwent comprehensive ocular examinations, Goldmann perimetry, Hess chart test and exophthalmometry.

Results: Thirty-five patients underwent orbital floor reconstruction within the study period in our center. Twenty-six patients were analyzed. Autogenous grafts were used in 14 patients (53 %), and medpor in 12 patients (46.2%). Among our patients, 84.6% of them were males and 15.6 % females. The mean age was 24.5(8.2) years. Motor vehicle accidents were attributed to 96.2%. Motorcyclists were the most common victims (76.9%). The most common clinical presentations were diplopia 61.6% and enophthalmos 50 %. In our study 50% of orbital floor reconstructions were carried out within 2 weeks and 73.1 % of the cases were approached through blepharoplasty incision. Postoperatively there was no diplopia in primary gaze. In all cases however diplopia in the inferior and peripheral gaze was found 11.5 % and 26.9 % respectively in autogenous group, and 3.8 % and 26.9 % in medpor group (P = 1.24). Enophthalmos was 11.4 % in autogenous graft group and 15.3 % in medpor group (P= 0.465). Hess chart was found to be abnormal in 11.4 % for each group (P=0.062). Restricted extraocular movements were seen in one (3.8 %) patient of autogenous group and 7.7 % of patients in medpor group (P=0.574).

Conclusion: The outcome of orbital floor reconstruction by medpor was comparable and as good as autogenous graft, and there was no statistically significant difference between the two groups. Goldmann perimetry was a more objective binocular visual field test to detect diplopia and extraocular deficits.

Dr. Bakiah Shaharuddin : Supervisor

STUDY OF SHORT TERM OUTCOME AND INCIDENCE OF RECURRENCE OF INGUINAL HERNIA REPAIR IN HOSPITAL UNIVERSITI SAINS MALAYSIA.

Dr. Wan Zainira Wan Zain
MMed Surgery

Department of General Surgery,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction: The purposes of this study are to evaluate the complications arise from the inguinal hernia repair and their correlations with the patients' factors and surgical procedure's factors. The aim is to improve our that surgical unit in Hospital Sains Malaysia offers the surgery for inguinal hernia repair.

Methods and Results: This retrospective study was done on 600 patients who undergone the hernia repair. This study started from January 2000 until January 2005. About 580 male patients and 18 female patients had undergone hernia repair within the time frame. Mean age was 52 years old with standard deviation of 18.2 years. We found patients more than 50 years old tend to develop short term complications and overall complications after the surgery ($p < 0.05$). 364 patients have right sided hernia, 200 patients have left sided hernia and 36 have bilateral hernia. 494 patients have indirect hernia, 93 patients have direct hernia, 7 patients have both direct and indirect hernia and 6 patients have sliding hernia. Indirect hernia have higher risk to develop recurrent hernia ($0 < 0.05$). Majority of patients came to hospital for the treatment after 1 to 6 years of symptoms. 460 had undergone Lichtenstein repair, 121 had undergone Darning repair, 10 had Bassini and 9 had laparoscopic hernioplasty. Type of surgery does not alter the incidence of complications and recurrence after the surgery. 537 patients had elective surgery and 63 patients had emergency surgery. Duration of operation was longer in emergency surgery in which the duration of more than 2 hours were 17.7% in elective cases comparing to 49.2% in the emergency cases ($p < 0.05$) and emergency cases stayed longer in hospital comparing to elective cases ($r < 0.05$). 87 patients had COAD (chronic obstructive airway disease), 45 had chronic constipation and 39 had BPH (benign prostatic hypertrophy). Patients who had COAD tend to come as emergency and develop short term complication after the surgery ($p < 0.05$). There were 23 wound infections. Our wound infection rate was at 3.8%. The less experienced surgeons had shown to have higher early infection rate comparing to the more experienced surgeons ($p < 0.05$). There were 19 recurrent cases. 6 patients recurred as early as less than 6 months. 6 recurred after 6 month but less than 1 year, 7 recurred after 1 year to 5 years after the surgery. The indirect hernia have higher recurrent rate. Similarly with patients who develop post operative complication, the recurrent rate was higher in this group ($p < 0.05$)

Conclusion: In summary, the commonest complications post hernia repair were wound infection, scrotal hematoma and recurrence. Patients age of more than 50 years old, patients who have COAD and less experienced surgeons had increased the risk of post operative complications. Patients who have indirect hernia and who developed post operative complications have higher risk to develop recurrence.

Dr. Mohd. Ridzuan Abd. Samad : Supervisor
.....

WORKING MEMORY IN CHILDREN AND ADOLESCENTS WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER AND THEIR SIBLINGS IN HOSPITAL UNIVERSITI SAINS MALAYIA

Dr. Wee Kok Wei
MMed Psychiatry

Department of Psychiatry,
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia

Introduction: Impairment of working memory in children with Attention Deficit Hyperactivity Disorder (ADHD) has been described with certainty. However, there have been few studies of working memory among the siblings of children with ADHD. If similar impairment in working memory of the siblings can be demonstrated, this could suggest impaired working memory as an endophenotype of ADHD.

Objective: Working memory of ADHD children, their siblings and those children with other chronic medical illnesses were assessed and compared.

Patient and Method: 57 subjects were recruited: 1) ADHD group (n 21), 2) siblings of ADHD children group (n=15), and 3) non-ADHD children with chronic medical condition as the control group (n = 21). All the subjects aged between 6 and 15 years, and ADHD was diagnosed according to DSM-IV-TR. All subjects were screened with M.I.N.I. Kid Screen. IQ was determined using the Seguin Form Board test. Those with other co-morbidity or IQ<70 were excluded from the study. Three tests from the Working Memory Test Battery for Children (WMTB-C) were used to assess working memory. Digit Recall was used for assessment of the phonological loop component, Mazes Memory test for the visuospatial sketch pad component and Backward Digit Recall for the central executive component.

Result: IQ score and other socio-demographic factors showed no association with the working memory scores except with Backward Digit Recall Standard Score. ADHD children and their siblings showed similar impairment and both differed from the control group on the Mazes Memory test. ADHD children also showed impairment in Digit Recall test, however the siblings group did not differ from the control group. The score of Backward Digit Recall did not show any significant difference between the 3 groups.

Conclusion: Impairment of the visuospatial sketch pad component of working memory seems to cluster in ADHD children and their siblings. This suggests that impairment of visuospatial sketch pad component may point towards an endophenotype of ADHD and help facilitate the identification of genes involved in ADHD. However, the results need to be interpreted in the light of the limitations and the unique study population who were almost all from the same ethnicity.

Assoc. Prof. Dr. Mohd Jamil Yaacob : Supervisor

Dr. Norzila Zakaria: Co-Supervisor
.....

INCIDENCE OF DEEP VEIN THROMBOSIS IN LOWER LIMB INJURY FOLLOWING CAST IMMOBILISATION A COHORT PROSPECTIVE STUDY CONDUCTED IN HOSPITAL UNIVERSITI SAINS MALAYIA (HUSM)

Dr. Zairuddin Abdullah Zawawi
MMed Orthopaedics

Department of Orthopaedics
School of Medical Sciences, Universiti Sains Malaysia,
Health Campus, 16150 Kelantan, Malaysia.

Introduction : Patient who had undergone lower limb immobilization have an increased risk for the development of deep vein thrombosis and subsequent pulmonary embolism, a life threatening situation. One of the known causes for the development of deep vein thrombosis is by recent cast immobilization of lower extremities. The purpose of this study is to determine the incidence of deep vein thrombosis following lower limb immobilization by cast and its predisposing factors.

Objectives: The incidence of DVT following cast immobilization of the lower limb; and which level of cast and

possible predisposing factors leading to DVT were analysed.

Patients and Methods: A prospective cohort study of a total of 40 patients participated in the study where they must be on cast for at least 6 weeks duration. The incidence of deep vein thrombosis was determined by colour Doppler ultrasound.

Results: From 40 patients assessed during the study period, deep vein thrombosis was identified in only 1 patient after 6 weeks of casting. This gave the incidence rate of only 2.5%.

Conclusion: The rate of deep vein thrombosis in our community following lower limb immobilization by cast is very low. Thus, we could conclude that cast application is still a safe mode of treatment in lower limb injury and it is not necessary to start antithrombolytic agent for prophylaxis for DVT.

Assoc. Prof. Dr. Mohd. Imran Bin Yusof : Supervisor

Dr. Tg. Muzaffar Tg. Shahabudin: Co-Supervisor

.....