

# MEDICAL RESEARCH SYMPOSIUM 2015

10 DECEMBER 2015 | KULLIYAH OF MEDICINE

*Kulliyah of Medicine, Bandar Indera Mahkota, 25200 Kuantan, Pahang, Malaysia*

Programme .....	2
ORAL PRESENTATION.....	3
Anti-Atherosclerotic Effects Of Eurycoma Longifolia In Rats Fed On High-Fat Diet.....	3
Effect Of Flaxseed Extract On The Liver Histological Structure In Streptozotocin Induced Diabetic Rats.....	3
Distribution Pattern Of Hepatitis C Virus In Eastern Peninsular Malaysia For The Past Decade.....	4
Diabetic Retinopathy In Primary Care Clinic Using Non-Mydriatic Retinal Camera.....	4
Reproducibility Of Mammographic Parenchymal Patterns and Breast Density On Full-Field Digital Mammography (Ffdm): Comparison Of Two Classification Systems.....	5
Lower Urinary Tract Symptoms (Luts) Among Women Attending Gynaecology Clinic and Its Effect On Their Social Life.....	6
Investigation Of Oxidative Stress Status and Neuroprotection By Vitamin E In Chronic Cerebral Hypoperfusion-Induced Neurodegeneration In Rats.....	6
Medical Students' Knowledge and Attitude On Ethical Issues In Anesthesia and Critical Care.....	7
POSTER .....	8
Evaluation Of Maxillary Sinus Volume In Dentate, Edentulous and Free End Cases Among A Sample Of Malay Population Using Orthopantomogram.....	8
51-Chromiummethylenediaminetetraaceticacid ( <sup>51</sup> cr-Edta) Glomerular Filtration Rate (Gfr) Analysis: Comparing Two Blood Sampling With Multiple Blood Sampling.....	8
A Study Of The Arterial Variations In The Popliteal Regions, Are They Symmetrical Or Not?.....	9
Revisiting Essential Hypertension, Regulation Of Blood Pressure Control and The Adrenaline Hypothesis.....	9
Phenylethanolamine-N-Methyltransferase Inhibition For Sustained Blood Pressure Reduction In Rats.....	10
Prehypertensive State, Metabolic Syndrome and Cardiovascular Risk Factors Among Young Adults In Rural Malaysia.....	10
Reversibility Of The Effects Caused By Fenugreek Seeds Aqueous (Fsa) Extract On The Estrous Cycle and Reproductive Hormones In The Rat Animal Model.....	11
Is There Any Effect (S) Of Fenugreek Seeds Aqueous Extract On The Regularity Of Estrous Cycle and Quantity Of Ovarian Follicles Of Female Rats?.....	12
Subdermal Etonogestrel: The Effects On Menses, General Health, Religious Obligations and Sexual Relationship.....	12
Lethal Fetal Anomalies: Are We On The Right Direction?.....	13
Is It Tuberculosis Or Is It Not?.....	13
Case Series and Review Of Factors Affecting Limb Salvage: Kuantan Experience.....	14
Correlation Between Severity Of Erosive Reflux Esophagitis and Its Manometric Findings In A Tertiary Hospital At East Coast, Peninsular Malaysia.....	14
Proboscis Lateralis; Nasal Aplasia With Complete Agenesis Of Maxillary and Ethmoidal Sinuses: Case Report.....	15
Alternative Surgical Approach To Create Osteomyelitis In New Zealand White Rabbit Model.....	15
Prevalence Of Risk For Eating Disorder Amongst International Islamic University Malaysia Medical Students and Its Associated Factors.....	16
Nicotine Dependence and Quit Smoking: A Preliminary Survey Among Adult Males In Kuantan, Malaysia.....	16
'I Can't Pray' – The Spiritual Needs Of Malaysian Muslim Patients Suffering From Depression.....	17
Hypertension Prevalence In Adult Type-2 Diabetes Patients: A Preliminary Retrospective Cohort Study In Kuantan, Pahang, Malaysia.....	17
Factors Affecting Online Health Information Seeking Behaviour Via Facebook In Malaysia: The Malaysian Medical Gazette Experience.....	18
Knowledge, Attitude and Practice On Dengue Among Adult Population In Felda Sungai Panching Timur, Kuantan, Pahang.....	19
knowledge, Attitude And Practice Of Medical Personnel On Smoking Cessation Guidelines:A Review On Associations And Questionnaires.....	19
Is Autonomy A Universal Value Of Human Existence? Scope Of Autonomy In Medical Practice: A Comparative Study Between Western Medical Ethics and Islamic Medical Ethics.....	20

# PROGRAMME

Time	Event	Venue																											
8:30 AM	Registration	Foyer LH2																											
9:30 AM	Plenary Session I <b>Turning research into practice: Pahang Melioidosis experience</b> <i>Prof. Dr. How Soon Hin</i>	LH3																											
10:00 AM	Keynote Address & Opening Ceremony <b>Turning research into evidence</b> <i>Prof. Dr. Azmi Md Nor (Dean, Kulliyah of Medicine)</i>	LH3																											
10:15AM	Poster presentation (Morning break)	Foyer LH2																											
11:00AM	<b>Oral Presentation</b> Chairman: <i>Prof. Dr. Nasuruddin</i> <i>8 minutes presentation &amp; 2 minutes Q&amp;A</i>	LH3																											
	<table border="1"> <thead> <tr> <th>Time</th> <th>Speaker</th> <th>Title</th> </tr> </thead> <tbody> <tr> <td>11:10</td> <td>Assoc. Prof. Dr. Imad Matloub Dally Al-Ani</td> <td>Anti-Atherosclerotic Effects of Eurycoma Longifolia in Rats Fed on High-Fat Diet</td> </tr> <tr> <td>11:20</td> <td>Assoc. Prof. Dr. Mohd Aznan Md. Aris</td> <td>Prevalence of Diabetic Retinopathy (Dr) in Primary Care Clinic by Using Non-Mydriatic Retinal Camera</td> </tr> <tr> <td>11:30</td> <td>Assoc. Prof. Dr. Mohamed Hadzri Hasmoni</td> <td>Distribution Pattern of Hepatitis C Virus in Eastern Peninsular Malaysia for the Past Decade</td> </tr> <tr> <td>11:40</td> <td>Assoc. Prof. Dr. Imad Matloub Dally Al-Ani</td> <td>Effect of Flaxseed extract on the liver Histological structure in streptozotocin induced diabetic rats</td> </tr> <tr> <td>11:50</td> <td>Assoc. Prof. Dr. Radhiana Hassan</td> <td>Reproducibility of Mammographic Parenchymal Patterns and Breast Density on Full-Field Digital Mammography (FFDM): Comparison of the Two Classification Systems</td> </tr> <tr> <td>12:00</td> <td>Asst. Prof. Dr. Dalia Abdulwahab</td> <td>Lower Urinary Tract Symptoms (LUTS) among Women Attending Gynaecology Clinic and Its Effect on Their Social Life</td> </tr> <tr> <td>12:10</td> <td>Prof. Dr. Anil Kumar Saxena</td> <td>Investigation of Oxidative Stress Status and Neuroprotection by Vitamin E in Chronic Cerebral Hypoperfusion-Induced Neurodegeneration in Rats.</td> </tr> <tr> <td>12:20</td> <td>Prof. Dato' Dr. Ariff Osman</td> <td>Medical students' knowledge and attitude on ethical issues in anaesthesia and critical care</td> </tr> </tbody> </table>	Time	Speaker	Title	11:10	Assoc. Prof. Dr. Imad Matloub Dally Al-Ani	Anti-Atherosclerotic Effects of Eurycoma Longifolia in Rats Fed on High-Fat Diet	11:20	Assoc. Prof. Dr. Mohd Aznan Md. Aris	Prevalence of Diabetic Retinopathy (Dr) in Primary Care Clinic by Using Non-Mydriatic Retinal Camera	11:30	Assoc. Prof. Dr. Mohamed Hadzri Hasmoni	Distribution Pattern of Hepatitis C Virus in Eastern Peninsular Malaysia for the Past Decade	11:40	Assoc. Prof. Dr. Imad Matloub Dally Al-Ani	Effect of Flaxseed extract on the liver Histological structure in streptozotocin induced diabetic rats	11:50	Assoc. Prof. Dr. Radhiana Hassan	Reproducibility of Mammographic Parenchymal Patterns and Breast Density on Full-Field Digital Mammography (FFDM): Comparison of the Two Classification Systems	12:00	Asst. Prof. Dr. Dalia Abdulwahab	Lower Urinary Tract Symptoms (LUTS) among Women Attending Gynaecology Clinic and Its Effect on Their Social Life	12:10	Prof. Dr. Anil Kumar Saxena	Investigation of Oxidative Stress Status and Neuroprotection by Vitamin E in Chronic Cerebral Hypoperfusion-Induced Neurodegeneration in Rats.	12:20	Prof. Dato' Dr. Ariff Osman	Medical students' knowledge and attitude on ethical issues in anaesthesia and critical care	
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12:30PM	Plenary Session II <b>Research methodology made easy</b> <i>Assoc. Prof. Dr. Jamalludin Ab Rahman</i>	LH3																											
12:45PM	<b>Closing ceremony</b> <ul style="list-style-type: none"> <li>- Comment from Head Judge</li> <li>- Prize presentation:               <ol style="list-style-type: none"> <li>1. Best Oral Presentation</li> <li>2. Best Poster Presentation</li> </ol> </li> <li>- Closing remark <i>Prof. Dr. Azmi Md Nor (Dean, Kulliyah of Medicine)</i></li> </ul>	LH3																											

## ANTI-ATHEROSCLEROTIC EFFECTS OF EURYCOMA LONGIFOLIA IN RATS FED ON HIGH-FAT DIET

Fakhria Al-Joufi<sup>1</sup>, Anil K. Saxena<sup>a</sup>, **Imad M. Al-Ani**<sup>1</sup>, Norlelawati A. Talib<sup>1</sup>, Rafidah H. Mokhtar<sup>2</sup>, Norsidah Ku-Zaifah<sup>1</sup>

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**Introduction:** Cardiovascular diseases, (CVD), particularly atherosclerosis, have become a growing health problem, especially in developing countries. Hyperlipidemia is widely known as a dominant risk factor for the development of atherosclerosis.

**Objectives:** This study was designed to investigate the effects of *Eurycoma Longifolia* (EL) on the testosterone level, biochemical changes of lipid profile and intima media thickness (IMT) in rats fed on high-fat diet.

**Methodology:** Twenty young, adult male Sprague-Dawley (SD) rats were housed for 12 weeks. After one week of acclimatization, they were randomly divided into four groups of 5 animals each and treated for 12 weeks as follow: Group ND was given only normal diet, group NDEL was given normal diet and EL extracts (15mg/kg) dissolved in distilled water, group HFD was given only high fat diet and group HFDEL was given high fat diet and EL extracts (15mg/kg).

**Results:** Rats which were treated with EL (NDEL and HFDEL) showed a significant increase ( $p < 0.05$ ) in the testosterone levels. There was a significant decrease ( $p < 0.05$ ) in triglyceride (TG) in HFDEL group compared to HFD group. The histological sections of aortas revealed a significant decrease ( $p < 0.05$ ) in IMT in HFDEL as compared with HFD group. No histological changes were observed in NDEL group compared with ND group and there was no significant difference in IMT values between NDEL and ND.

**Conclusion:** These findings suggest that EL is a promising protective agent against atherosclerosis induced by HF diet.

## EFFECT OF FLAXSEED EXTRACT ON THE LIVER HISTOLOGICAL STRUCTURE IN STREPTOZOTOCIN INDUCED DIABETIC RATS

**Imad M. Al-Ani**<sup>1</sup>, Ahmed N. Abired<sup>2</sup>, Basma E. Mustafa<sup>2</sup>, Emad N. Abdel Wahab<sup>1</sup> and Marwan S. Azzubaidi<sup>2</sup>

<sup>1</sup>Department of Basic Medical Science, Kulliyah of Medicine, International Islamic University Malaysia, Kuantan, Pahang, Malaysia. <sup>2</sup>Department of Basic Medical Science, Kulliyah of Dentistry, International Islamic University Malaysia, Kuantan, Pahang, Malaysia.

**Introduction:** Diabetes mellitus has become a serious warning to mankind health in all over the world. The management goal of diabetes is to keep blood glucose levels as close as possible to healthy individuals. Medications used to treat diabetes usually associated with complications and may cause different side effects. Many traditional anti-diabetic plants have become popular in the management of diabetes mellitus. Flaxseed has been used as traditional medicine for centuries.

**Objective:** This study aimed to evaluate the hepatoprotective effects of flaxseed extract in streptozotocin (STZ)-induced diabetic rats.

**Methodology:** Diabetes mellitus was induced in Sprague-Dawley rats using a single injection of streptozotocin (60 mg/kg i.p.). The rats were divided into five groups of 8 rats each. Group NC, normal control rats; Group NF, normal rats treated with flaxseed extract (400 mg/kg); Group DC, diabetic control rats; Group DG, diabetic rats treated with glibenclamide (0.6 mg/kg); Group DF, diabetic rats treated with flaxseed extract (400 mg/kg); for 4 weeks.

**Results:** There were significant increase in relative liver weight, blood glucose levels in DC group comparing to NC group ( $p < 0.05$ ). The disturbance of these parameters was ameliorated in DF and DG groups. Histological observation revealed congestion of central veins, degeneration of hepatocytes, and reduction glycogen granules in DC group. These pathological changes were ameliorated in the flaxseed extract and glibenclamide treated rats.

**Conclusion:** Flaxseed extract may represent a candidate alternative treatment to control diabetes mellitus and its related hepatopathy.

## **DISTRIBUTION PATTERN OF HEPATITIS C VIRUS IN EASTERN PENINSULAR MALAYSIA FOR THE PAST DECADE**

*H.M. Hadzri<sup>1</sup>, H.P. Tee<sup>2</sup> and C.A. Azlida<sup>2</sup>*

*<sup>1</sup>Department of Medicine, Jalan Hospital Campus, 25150 Kuantan, Pahang. <sup>2</sup>Gastroenterology Unit, Department of Medicine, Hospital Tengku Ampuan Afzan, Jalan Tanah Putih, 25100 Kuantan, Pahang.*

**Introduction:** Analysis of the Hepatitis C Virus (HCV) genotype spread in a particular area has a crucial impact on public health. Genotyping is essential before initiating treatment.

**Methods:** This is a hospital-based cohort of 133 chronic hepatitis C patients, collected prospectively among subjects attending Hospital Tengku Ampuan Afzan, Kuantan, within an area of eastern Peninsular Malaysia. We assessed the rate and distribution of HCV genotypes during two consecutive periods, from 2005 to 2006 and from 2013 to 2014, according to age, gender, race and risk factors.

**Results:** There were more male, Malay ethnic and IDU patients seen in the latter cohort. Genotype 3 was the dominant genotype followed by genotype 1, 4 and 6. Statistical evaluation of the demographic of HCV patients stratified by genotypes did not revealed any significant difference between the two periods. There was no association between the risk factors analyzed and the acquisition of different HCV genotypes. However, there was significant difference for males and the patients receiving treatment in the second cohort ( $p < 0.005$ ).

**Conclusion:** The genotype distribution remains similar although there was slightly more genotype 3 in the latter years. The proportions of male patients and patients receiving treatment in the latter period were significantly higher.

## **DIABETIC RETINOPATHY IN PRIMARY CARE CLINIC USING NON-MYDRIATIC RETINAL CAMERA**

*Mohd Aznan Md Aris<sup>1</sup>, Khairidzan Mohd Kamal<sup>2</sup>, Razman Mohd Rus<sup>3</sup> and Fa'iza Abdullah<sup>1</sup>*

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**Introduction:** Diabetic retinopathy is the commonest complications of diabetes mellitus. It usually been screened by using the funduscopy examination during diabetic mellitus assessment. The using of retinal camera in primary care clinics have been introduced in screening of diabetic retinopathy.

**Objective:** To determine the prevalence of diabetic retinopathy by using non-mydratic retinal imaging among diabetic patients in government primary care clinics. Its associated risk factors were also evaluated.

**Methodology:** A cross sectional study was carried out. The subjects were selected through stratified random sampling from those who registered in government primary care clinics in Kuantan, Pahang from May 2010 to April 2011. The subjects were interviewed and assessed clinically using a structured questionnaire. The retinal examination was performed using non-mydratic retinal imaging by trained and accredited staff.

**Results:** Out of 400 subjects, majority of them were diagnosed with diabetes mellitus for less than 5 years (58.8%) and had controlled blood pressure (51.0%). The prevalence of diabetic retinopathy and maculopathy were 33.5% and 17.8% respectively. 22.3% of total eyes of subjects had mild non-proliferative diabetic retinopathy. Diabetic retinopathy was independently associated with chronic kidney disease {OR: 3.46, 95% CI (1.76, 6.80)} and high HbA1c {OR: 1.12, 95% CI (1.02, 1.22)}. Interestingly, those who had dyslipidemia has 39% less risk of diabetic retinopathy {OR: 0.61, 95% CI (0.39, 0.94)}.

**Conclusion:** Non-mydratic retinal camera use in primary care setting facilitates the detection of diabetic retinopathy. The diabetic retinopathy also has relationship with chronic kidney disease, high HbA1c and dyslipidemia.

## **REPRODUCIBILITY OF MAMMOGRAPHIC PARENCHYMAL PATTERNS AND BREAST DENSITY ON FULL-FIELD DIGITAL MAMMOGRAPHY (FFDM): COMPARISON OF TWO CLASSIFICATION SYSTEMS**

*Radhiana Binti Hassan<sup>1</sup>, Jamalludin Ab Rahman<sup>2</sup>, Izwan Zannie Zaini<sup>1</sup> and Reem Mohammed Saeed Abdulateef<sup>1</sup>*

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**Introduction:** Mammographic breast density is considered as a strong predictor of breast cancer risk. However, breast density assessment and classification on mammogram is difficult.

**Objective:** The aim of the study is to compare inter-observer agreement between general radiologists in classification of mammographic breast density using TABAR's pattern and BI-RADS classification from two-view Full-Field Digital Mammography (FFDM).

**Methods:** A data set of 400 mammograms was evaluated by three general radiologists. The radiologists independently review the images and classify the parenchymal pattern according to BI-RADS and TABAR classification systems. Inter-observer agreements were analyzed using kappa statistic.

**Results:** Inter-observer agreement for the BI-RADS are slight to fair (Reviewer 1 versus Reviewer 2:  $k=0.19$ , Reviewer 1 versus Reviewer 3,  $k=0.07$  and Reviewer 2 versus Reviewer 3,  $k=0.49$ ) and for TABAR is fair to moderate (Reviewer 1 versus Reviewer 2:  $k=0.23$ , Reviewer 1 versus Reviewer 3,  $k=0.31$  and Reviewer 2 versus Reviewer 3,  $k=0.50$ ).

**Conclusion:** Our study demonstrates poor level of agreement in breast parenchymal pattern and density based on both BI-RADS and TABAR classifications. Thus, breast density in risk stratification of breast cancer should be used with caution in our local practice.

## LOWER URINARY TRACT SYMPTOMS (LUTS) AMONG WOMEN ATTENDING GYNAECOLOGY CLINIC AND ITS EFFECT ON THEIR SOCIAL LIFE

Zalina Nusee<sup>1</sup>, Ruqaiyah B Rerah<sup>1</sup>, Htyke Myat Phyu<sup>2</sup>, Dalia F Abdulwahab<sup>1</sup>, Hamizah Ismail<sup>1</sup>, Roszaman Ramli<sup>1</sup>, Mokhtar Awang<sup>1</sup> and Rozihan Ismail<sup>3</sup>

<sup>1</sup>Department of Obstetrics & Gynecology, International Islamic University Malaysia. <sup>2</sup>Department of community medicine, International Islamic University Malaysia. <sup>3</sup>Department of Obstetrics & Gynecology Hospital T. A. Afzan, Kuantan, Pahang, Malaysia

**Introduction:** Lower Urinary Tract Symptoms (LUTS) is a worldwide problem that is highly prevalent and varies by geography and culture. It influences the quality of life with social implication.

**Objective:** To estimate the prevalence of LUTS among patients attending the gynaecology clinic. We also assessed its severity and associated risk factors.

**Methodology:** This is a cross sectional study where participants were given 3 sets of self-filled questionnaire; UDI-6, IIQ-7 and OAB v8.

**Results:** The prevalence of LUTs was 62%. The commonest symptoms were frequency (43%) and stress incontinence (49%). It was significantly associated with BMI, past obstetric history, menopausal status and previous pelvic surgery. Storage symptoms including stress urinary incontinence (SUI) and overactive bladder (OAB); and voiding dysfunction also shows significant association. For SUI, race, hormonal therapy status and smoking history were not significant. For OAB, other than race, HRT and smoking, BMI also was not significant. For voiding dysfunction, other than HRT and smoking, parity and menopausal status were also not significant.

**Conclusion:** This study shows LUTS is highly prevalent in our population. However, further longitudinal study need to be conducted for better understanding of severity and impact on quality of life.

## INVESTIGATION OF OXIDATIVE STRESS STATUS AND NEUROPROTECTION BY VITAMIN E IN CHRONIC CEREBRAL HYPOPERFUSION-INDUCED NEURODEGENERATION IN RATS.

Anil Kumar Saxena and Sayyada Sayeed

Department of Basic Medical Sciences, Kulliyah of Medicine, International Islamic University, Kuantan, Malaysia.

**Introduction:** Reduced cerebral blood flow (CBF) is associated with aging and neurodegenerative disorders. CBF-induced neurodegeneration is related with the formation of reactive oxygen species (ROS), which is fatal to neurons at high concentration.

**Objectives:** To study the neuropathological consequences of a reduced CBF, a similar condition has been created in rats by common carotid artery occlusion (2 vessel occlusion, 2VO). Since vitamin E is known to be a potent antioxidant, the present study was designed to assess the effects of vitamin E as an antioxidant and neuroprotective agent in 2VO rat model.

**Methodology:** After acclimatization, twenty four Sprague Dawley rats weighing 200-250 g were equally divided into three groups. Group A – sham control, Group B–2VO, and Group C–2VO+E (treated daily with Vit E, 100 mg/kg, orally following 2VO). On the 8th week, all the rats were euthanized and the hippocampi were isolated. Viable neuronal cell count in the hippocampal CA-1 region was estimated. The Isoprostane F2 (Iso-F2) levels were also measured in the brain homogenates to quantify the oxidative stress levels.

**Results:** There was significant difference in neuronal cell death in 2VO group as compared to sham group. In 2VO+E rats, the viable neuronal cell count of the hippocampal CA-1 region was significantly higher ( $p < 0.05$ ) as compared to the 2VO group. Moreover, Iso-F2 levels in 2VO group was significantly higher ( $p < 0.05$ ) as compared to 2VO+E group, implying high oxidative stress in 2VO group and reduction of oxidative stress levels in 2VO+E group.

**Conclusion:** This study clearly demonstrates the effectiveness of Vit E as a neuroprotective and antioxidant agent in chronic cerebral hypoperfusion induced-neurodegeneration in rats.

## **MEDICAL STUDENTS' KNOWLEDGE AND ATTITUDE ON ETHICAL ISSUES IN ANESTHESIA AND CRITICAL CARE**

*HO Ariff, AG Rasydan, N Suhaila, AR Shahrir*

*Kulliyyah of Medicine, International Islamic University Malaysia, 25200, Kuantan, Pahang, Malaysia*

**Introduction:** One of the important skills that medical students should acquire before graduation is the ability to discuss and resolve common ethical dilemmas in clinical practice. Lectures, student seminar and small group discussion on ethical dilemmas are methods use to equip them with this important skill.

**Objective:** A pilot study was conducted on a group of fourth year students to evaluate their knowledge and attitude on common medical ethical dilemmas

**Methodology:** Questionnaires comprised of seven items related to consent, and common ethical issues in anaesthesiology and critical care; two Case Scenarios regarding CPR and medical futility and a question on whether they had experienced or observed ethical situation in the ward. It was collected at the end of the workshop and manually analysed.

**Results:** The majority (97.56%) agreed that taking consent involves application of ethical principles. On euthanasia, the majority (87%) opined that it is not permissible in Islam. Three quarter (75%) disagreed that withholding of life support from dying patients as equals to physician-assisted euthanasia. When asked whether withdrawal of life support to a dying patient equals to euthanasia, approximately 56% agreed to the statement while the remaining 44% did not. The majority opined that withdrawal of life support is allowed in comatose patient with massive CVA (73.17%) and that it is permissible in the brain dead (92.70%) patient. The majority (75.61%) also opined that Morphine administered to a terminally ill cancer patient is not equal to indirect euthanasia. On the specific case scenarios, the majority (82.93%) opined that no CPR should be carried out in a post AMI patient who was brought to the A&E in a cyanosed and 'practically dead' situation. However, in Case 2, approximately 44% opined that a CPR should be performed and 56% thought it shouldn't. On opportunities to observe doctors resolving ethical situation in wards, about two third stated a positive response.

**Conclusion:** Taking consent involves application of ethical principles. However, there are difficulties on end of life issues such as withholding and withdrawal of life support particularly when such activities are linked to the classification of euthanasia. There are great opportunities for students to learn and acquire ethical reasoning skills in the present set up as this study have shown.



## EVALUATION OF MAXILLARY SINUS VOLUME IN DENTATE, EDENTULOUS AND FREE END CASES AMONG A SAMPLE OF MALAY POPULATION USING ORTHOPANTOMOGRAM

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<sup>1</sup>Kulliyah of Dentistry, International Islamic University Malaysia, Kuantan, Pahang, Malaysia. <sup>2</sup>Department of Basic Medical Science, Kulliyah of Medicine, International Islamic University Malaysia, Kuantan, Pahang, Malaysia.

**Introduction:** Maxillary sinus volume is important for dental surgeries that involve the sinus or areas close to it due to the risk of oral antral communication.

**Objective:** The purpose of this study is to evaluate the maxillary sinus volumes in dentate, edentulous and free end cases among a sample of Malay population using orthopantomogram.

**Methodology:** Results: Among 364 cases there were 118 dentate, 192 edentulous, and 54 free ends. There are differences in the maxillary sinus volumes between left and right sides in dentate cases, but not in edentulous and free end cases. There were no difference by gender while age was only significant among edentulous cases.

**Conclusion:** There is no relationship between the gender and the volume in all cases. The volume was increased with aging in edentulous cases while have no effect in dentate and free end cases. The volume at the both sides is similar different in dentate while it is different in edentulous and free end cases.

## 51-CHROMIUM METHYLENEDIAMINETETRAACETICACID (<sup>51</sup>Cr-EDTA) GLOMERULAR FILTRATION RATE (GFR) ANALYSIS: COMPARING TWO BLOOD SAMPLING WITH MULTIPLE BLOOD SAMPLING.

Shahrir A.R<sup>1</sup>, Ibrahim Lutfi bin Shuaib<sup>2</sup> and Sazilah binti Ahmad Sarji<sup>3</sup>

<sup>1</sup>Department of Radiology, Kulliyah of Medicine, International Islamic University Malaysia. 25200 Kuantan, Pahang. <sup>2</sup>Institut Perubatan dan Pergigian Termaju (Advanced Medical & Dental Institute), Universiti Sains Malaysia Bertam, 13200 Kepala Batas, Pulau Pinang Malaysia. <sup>3</sup>Department of Biomedical Imaging, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Malaysia

**Introduction:** The glomerular filtration rate (GFR) is the commonest method used to quantify renal function. Chromium-51-Ethylenediaminetetraaceticacid (51Cr-EDTA) plasma clearance has been accepted as a gold standard method in measuring GFR. Several methods have been proposed in which the glomerular filtration rate is estimated from using only one or two blood samples to using multiple blood samples.

**Objective:** The purpose of this study is to determine the accuracy of using two blood samples compared to multiple blood samples, for calculation of GFR by the 51Cr-EDTA method. In addition, the study aimed to determine the best combination time of two blood sampling and correlation with gender and ethnicity of the patients.

**Methodology:** <sup>51</sup>Cr-EDTA tracer solution is injected into a vein in the upper arm. Six mL of whole blood is then drawn from the opposite arm at 120, 150, 180 and 240 minutes, centrifuged and 2 ml aliquots of plasma are pipetted and counted for a period of 5 minute each time, in an automatic gamma well counter. GFR is calculated by measuring Cr-EDTA plasma clearance using slope

intercept method. The patients' height and weight is used to correct the GFR to body surface area. Correlations of the values are tested by Pearson and intra-class correlation, and mean and standard deviation derived from pair t-test.

**Results:** All time point combinations using two blood sampling shows a high correlation with multiple blood sampling method (p value < 0.001, r = 0.909 to 0.989). The best combination using two blood sampling is at 2 and 4 hour time point (r = 0.989 with 99% consistency). There is no significant difference in the GFR obtained by two blood sampling and multiple blood sampling between gender and ethnicity.

**Conclusion:** 51Cr-EDTA GFR estimation using two blood sampling method is accurate and reliable. The two and four hour time point is found to be the best. Gender and ethnicity does not influence GFR estimation using two blood sampling method.

## **A STUDY OF THE ARTERIAL VARIATIONS IN THE POPLITEAL REGIONS, ARE THEY SYMMETRICAL OR NOT?**

*Ahmad Ruzain Bin Salehuddin<sup>1</sup>, Zunariah Binti Buyong<sup>2</sup>, Siti Kamariah Binti Che Mohamed<sup>3</sup> and Radhiana Binti Hassan<sup>3</sup>*

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**Objective:** To assess the prevalence of the arterial variations in the popliteal regions and the symmetrical characteristic of the popliteal artery branching patterns in both knees of all subjects.

**Methodology:** 77 subjects (154 knees) were prospectively studied using colour Doppler ultrasonography in this descriptive and cross-sectional study. No subject had anomalies of the lower limbs or history of previous lower limb surgery. Subjects with cardiovascular disease were excluded from this study.

**Results:** Prevalence of the popliteal artery variations was 4.5%. The two variants (type I-B and type II-A) were seen in both knees. There were 5 subjects who had at least one variant in either side of their knees. Two subjects had type II-A occurred bilaterally in both knees while 3 other subjects had unilateral pattern of type I-B in combination with type I-A in their knees.

**Conclusion:** Symmetrical and non-symmetrical pattern can be seen in the population depending on the popliteal artery branching pattern.

### **Review**

## **REVISITING ESSENTIAL HYPERTENSION, REGULATION OF BLOOD PRESSURE CONTROL AND THE ADRENALINE HYPOTHESIS**

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Hypertension or high blood pressure, is a condition that has a significant impact on the world's population morbidity and mortality. The World Health Report 2002, stated that high blood pressure caused 7.1 million deaths throughout the world, which was approximately 13% of total deaths worldwide. The body's arterial blood pressure control depends on short-term and long-term

mechanisms. Short-term BP regulation is mediated by the autonomic nervous system (ANS) targeting the heart, vessels, and adrenal medulla. The sympathetic nervous systems (SNS) crucial involvement in stressful conditions and short term regulation of blood pressure is also widely accepted. There has also been increasing evidence and recognition of sympathetic augmentation as the main cause for essential hypertension in a significant number of patients especially those with no known attributable secondary causes and those who are young. We discuss the role of the ‘adrenaline hypothesis’ in the pathophysiology of hypertension.

## **PHENYLETHANOLAMINE-N-METHYLTRANSFERASE INHIBITION FOR SUSTAINED BLOOD PRESSURE REDUCTION IN RATS**

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**Introduction:** Hypertension is having an increasing impact on the world population’s morbidity and mortality. The pathogenesis of hypertension is multifactorial but the ‘adrenaline hypothesis’ is being increasingly identified as a cause for hypertension in the young.

**Objective:** The aim of this study is to assess the extent and sustainability of blood pressure fall following peripheral blockade of adrenaline synthesis and to assess the use of THIQ and its ability to block peripheral adrenaline synthesis.

**Methodology:** Inbred strain of spontaneously hypertensive rats (SHRs) of Wistar-Kyoto Japanese strain rats were obtained and randomised into treated and control groups. Indirect systolic blood pressure (SBP) was measured under ether anaesthesia. 1,2,3,4-Tetrahydroisoquinoline administered chronically. Blood collected for plasma catecholamine measurement and BP/HR measured at regular intervals.

**Results:** Baseline SBP, HR and body weight comparable between treated and control groups ( $p=1.00$ ,  $p=0.20$  and  $p=0.22$ , respectively). Significant SBP drop seen post PNMTI administration ( $p=0.02$ ). SBP also showed significant drop in week 1 ( $p=0.03$ ) and week 2 post treatment ( $p=0.04$ ). Treated SHR plasma catecholamine and dopamine levels also dropped 2-weeks following the PNMTI administration ( $p=0.04$ ).

**Conclusion:** This study is consistent with adrenaline hypothesis in the pathogenesis of essential hypertension in young spontaneously hypertensive rats. Consequently, we have also shown that chronic adrenal medullary inhibition with 1,2,3,4-Tetrahydroisoquinoline will result in sustained BP reduction.

## **PREHYPERTENSIVE STATE, METABOLIC SYNDROME AND CARDIOVASCULAR RISK FACTORS AMONG YOUNG ADULTS IN RURAL MALAYSIA**

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**Introduction:** Hypertension is an important risk factor for Cardiovascular Disease in Malaysia. Hypertension prevalence is at 42.6% and population-based control is poor at 26.8%.

**Objective:** The objective of the study is to ascertain the cardiovascular risk profile of prehypertensive and mildly hypertensive young adults against age-matched controls in rural Malaysia.

**Methodology:** 484 subjects attending primary care clinic were screened. 91 young adults with pre/mild hypertension and normotensive, age-matched controls were enrolled. The blood pressure and biochemical profiles for both groups were assessed and compared.

**Results:** Fifty-four subjects and 37 controls were enrolled. Amongst subjects, 46.3% had prehypertension and 53.7% had mild hypertension. Mean values compared to age-matched controls for MAP were  $102.68 \pm 7.48$  vs  $83.25 \pm 6.08$  mmHg ( $p < 0.001$ ), LDL  $3.75 \pm 0.95$  vs  $3.32 \pm 0.93$  mmol/L ( $p=0.03$ ), FBS  $4.65 \pm 0.54$  vs  $4.33 \pm 0.42$  mmol/L ( $p=0.03$ ), BMI  $28.81 \pm 5.16$  vs  $24.12 \pm 4.91$  ( $p < 0.001$ ). The mean BP was significantly associated with BMI, FBS, triglycerides, HDL and the TC/HDL ratio.

**Conclusions:** Greater BMI, FBG, HDL, triglyceride levels and TC/HDL ratio characterised the young adults with pre/mild hypertension. The data suggests that hypertension in young adults is secondary to metabolic syndrome.

## **REVERSIBILITY OF THE EFFECTS CAUSED BY FENUGREEK SEEDS AQUEOUS (FSA) EXTRACT ON THE ESTROUS CYCLE AND REPRODUCTIVE HORMONES IN THE RAT ANIMAL MODEL.**

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**Introduction:** In evaluating the potential of fenugreek seeds aqueous (FSA) extract as contraceptive, it is essential to assess the reversibility of its anti-fertility effects. Reversibility is defined as ability to an induced altered physiological state returning to the normal state.

**Objective:** The aim of the present work was to evaluate the reversibility of changes in the estrous cycle and levels of reproductive hormones in female rats following withdrawal treatment of FSA extract.

**Methodology:** Twenty four mature Sprague Dawley female rats were randomly divided into three groups of 8 rats each. Group A was the control and given distilled water. Group B was treated with 500 mg/kg/day of FSA extract for 15 days. Group C was the reversibility group in which the female rats were also treated with 500 mg/kg/day FSA extract and further observed for 21 days for reversibility effects. Daily vaginal smear cytology was performed and blood samples were taken from all animals after 15 days.

**Results:** The abnormal estrous cycles following FSA treatment were gradually returned to normal within the 21 days of observation post treatment withdrawal. Administration of FSA extract led to a decrease in the serum concentration of estrogen ( $P < 0.001$ ), progesterone ( $P=0.021$ ), FSH ( $P=0.416$ ) and LH ( $P=0.381$ ) while serum prolactin concentration was significantly increased ( $P < 0.001$ ). After 15 days of treatment withdrawal, serum estrogen, progesterone, FSH and LH concentration were not significantly different ( $P \geq 0.192$ ) in compare to the control group.

**Conclusion:** Withdrawal of FSA extract treatment restored the abnormal estrous cycle and reproductive hormones to the normal state.

## **IS THERE ANY EFFECT (S) OF FENUGREEK SEEDS AQUEOUS EXTRACT ON THE REGULARITY OF ESTROUS CYCLE AND QUANTITY OF OVARIAN FOLLICLES OF FEMALE RATS?**

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**Introduction:** The presence of diosgenin in fenugreek seeds is believed to be the active compound responsible for fenugreeks anti-fertility property.

**Objective:** The purpose of this study to evaluate the potential effects of fenugreek seeds aqueous extract (FSA) extract on the regularity of oestrous cycle and quantity of ovarian follicles. Materials and methods: Thirty two healthy mature female rats were randomly divided into four groups of 8 rats each. The first group A was the control and received distilled water; the B, C and D received 250, 500 and 1000 mg/kg/day FSA extract, respectively, for 15 days. Daily vaginal smear cytology was examined and ovaries of the animals were removed after 15 days for histological study.

**Results:** The results showed a significant ( $P < 0.024$ ) irregularity of oestrous cycle and reduction in relative ovarian weights of experimental animals treated by FSA extract in compare to the control group. A reduction in the number of secondary follicles and corpora lutea was found in the treated groups as well as an increment in the number of antral follicles in all treated groups in compared to the control.

**Conclusion:** The observation of irregular oestrous cycle, significant decrease in the number of secondary and antral follicles, and significant increase in the number of atretic follicles demonstrated the potential anti-fertility effects of fenugreek seeds on the female rats were found in this study.

## **SUBDERMAL ETONOGESTREL: THE EFFECTS ON MENSES, GENERAL HEALTH, RELIGIOUS OBLIGATIONS AND SEXUAL RELATIONSHIP**

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**Objective:** The aim of this study is to determine the effects of subdermal etonogestrel implant on menstrual pattern, body mass index (BMI), systolic and diastolic blood pressure (SBP and DBP), sexual relationship and religious obligations.

**Methodology:** A descriptive study was conducted at a family planning clinic between 1st January 2010 to 31st December 2011 whereby all the women who had their subdermal etonogestrel removed during this period were included. A self-prepared questionnaire was filled up with the help of a research assistant, which looked into the menstrual cycles prior to and during the implant usage, the non-menstrual adverse events, effect of menses on religious obligations and sexual relationship and the overall acceptability of subdermal etonogestrel as a contraceptive method. Blood pressure (BP) and BMI were recorded at the time of removal, while BP and BMI at insertion were gathered from the case file.

**Result:** 50 patients were recruited in this study. The mean duration of use was 33.8 months ( $\pm 10.4$ ) and 78% had completed 3 years. The prevalence of menstrual disturbance whilst on subdermal etonogestrel implant was 78%. The mean differences of SBP, DBP and BMI at removal and prior to usage were statistically significant. There was no association between BMI and menstrual pattern

whilst on implant. Practicing religious obligations and sexual activity were affected in 14.0% and 18.0% respectively. Overall satisfaction of subdermal implant was 92%.

**Conclusion:** Despite the high prevalence of menstrual disturbance, subdermal etonogestrel is well accepted. Increased the mean changes of SBP, DBP and BMI were not clinically significant, but significant proportion of the studied women had significant increase in SBP, DBP and BMI. The performing of religious duty and sexual activity seem to be unaffected.

## **LETHAL FETAL ANOMALIES: ARE WE ON THE RIGHT DIRECTION?**

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**Objectives:** To review the gestational age at diagnosis, method of diagnosis, pregnancy outcome and maternal complications of prenatally diagnosed lethal foetal anomalies.

**Methodology:** A one year retrospective review of 25 women who had aborted or delivered fetuses with lethal anomalies in a tertiary hospital in 2011 based on patient medical records.

**Results:** There were a total of 10,088 deliveries in the year 2011 in our tertiary centre, in which 25 (0.24%) women were found to have conceived fetuses with lethal anomalies. All of them were diagnosed by prenatal ultrasound and only 7 (28.0%) had both prenatal ultrasound and genetic study. The women's mean age was 29.9 years old (range 22-43 years). The mean gestational age at diagnosis of lethal foetal anomalies was 25.5 weeks (SD=12.5) and mean gestational age at termination of pregnancy (TOP) or delivery was 28.5 weeks (SD=12.5). Seven (28%) women had early counseling and TOP at the gestation of < 22 weeks. Beyond 22 weeks gestation, eight (32%) women had termination of pregnancy (TOP) and ten (40%) women had spontaneous delivery. Twenty (80%) women delivered or aborted vaginally, three (12%) women with assisted breech delivery and two (8%) women with abdominal delivery. The abdominal deliveries were performed due to transverse foetal lie in labour and a failed induction, leading to emergency hysterotomy complicated by hysterectomy due to intraoperative finding of ruptured uterus. Overall, the associated post-partum adverse events included post-partum haemorrhage (12%), retained placenta (12%), blood transfusion (8%), uterine rupture (4%) and endometritis (4%). Mean duration of hospital stay was 6.6 days (SD 3.7 days).

**Conclusion:** Late diagnosis of lethal foetal anomalies leads to various maternal morbidities, in this case series, which could have been prevented if they were diagnosed and terminated at early trimester. A new direction is needed in our local practice.

## **Case Study**

### **IS IT TUBERCULOSIS OR IS IT NOT?**

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Pulmonary tuberculosis is a major public health concern especially in primary care. Most of the time, the diagnosis and treatment are clear-cut based on the clinical, radiological and laboratory findings. However, the management of tuberculosis in a patient can pose a challenge to the treating physician when non tuberculous mycobacterium is cultured. This case highlights the clinical significance and

treatment dilemma of Non tuberculous mycobacterium infection in a pulmonary tuberculosis patient from the primary care perspectives.

### *Case Study*

#### **CASE SERIES AND REVIEW OF FACTORS AFFECTING LIMB SALVAGE: Kuantan Experience**

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**Introduction:** Arterial injuries to extremities account for 50% of all trauma. Extremities injuries can be quite challenging to the surgeon due to limited time for intervention and various factors affecting the outcome. Management of traumatic limb ischemia has tremendously evolved and It has shown dramatic improvement in which the limb salvage rates up to 83.8%.

**Methodology:** The medical records of all the cases with extremity trauma from March 2013 to March 2014 who needed intervention were reviewed retrospectively and potential data was extracted, summarized in tables and analysed.

**Results:** We received 8 male vascular trauma cases and 1 female trauma case with a mean age of 29.8yrs. Motor vehicle accident was the commonest cause for the injuries sustained in our region. The average total ischemic time was about 9.7hrs while the amputation rate was 30%.

**Conclusion:** There are various factors that may affect outcome of limb salvage surgery. Prompt action preoperatively to shorten the ischemic time is very crucial. Early graft occlusion is the most independent risk factor that predicts limb loss. MESS score may give a useful guide to the outcome of arterial repair post trauma.

#### **CORRELATION BETWEEN SEVERITY OF EROSIIVE REFLUX ESOPHAGITIS AND ITS MANOMETRIC FINDINGS IN A TERTIARY HOSPITAL AT EAST COAST, PENINSULAR MALAYSIA.**

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**Introduction:** The burden of Gastroesophageal Reflux Disease, GERD in Asia-Pacific region is increasing.

**Objectives:** To evaluate the manometric finding in erosive reflux esophagitis and its correlation with severity among patients who were seen at Surgical Department, Hospital Tengku Ampuan Afzan (HTAA), Kuantan.

**Methodology:** This was a cross sectional study which involved 60 patients seen from September 2012 until January 2014. Patients were required to fill up the Reflux Disease Specific Questionnaire and subsequently underwent manometric evaluation. Descriptive statistics and Pearson's correlation were applied using SPSS version 18.0.

**Results:** There was no correlation between the severity of Erosive Reflux Disease with the Lower Esophageal Sphincter Pressure or esophageal motility. There was positive correlation ( $r = + 0.54$ ) between severity of Erosive Reflux Disease and velocity variables of esophageal motility but it was not statistically significant.

**Discussion:** Few opinion in literatures that Erosive Reflux Disease is associated with esophageal dysmotility but there was no specific pattern of esophageal mean wave amplitude in our study sample. The limitation of this study was the sample's selection and sample size. Thus, we need further study with better methodology and sample size.

**Conclusion:** In conclusion, there was no significant correlation between the severity of Erosive Reflux Esophagitis on the Lower Esophageal Sphincter pressure and the esophageal motility.

### *Case study*

## **PROBOSCIS LATERALIS; NASAL APLASIA WITH COMPLETE AGENESIS OF MAXILARY AND ETHMOIDAL SINUSES: CASE REPORT**

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We report a child with Proboscis Lateralis with nasal aplasia and complete agenesi of maxillary and ethmoidal sinuses. This is a rare congenital malformation. Embryological basis has not been proven. It is often associated with facial malformation. However in our patient there was no such abnormality noted. This condition is diagnosed clinically and confirmed radiologically for which CT scan plays a pivotal role. Reconstructive surgery is planned at the age of 15 years.

## **ALTERNATIVE SURGICAL APPROACH TO CREATE OSTEOMYELITIS IN NEW ZEALAND WHITE RABBIT MODEL**

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**Introduction:** The New Zealand White (NZW) rabbit is an established model for infection.

**Objective:** An experimental protocol for local bacteria injection at distal femoral shaft to create osteomyelitis in the New Zealand White rabbit is described.

**Methodology:** This study is a descriptive analysis of the surgical approach (and related complications) used for osteomyelitis at distal femur in the NZW model. This study was performed at Advanced Orthopaedic Research Laboratory, International Islamic University Malaysia that followed the requirements of ISO17025 standard.

**Methodology:** The procedure was to introduced sterile distilled water to washes the femoral shaft before inoculation with ATCC 25923 Staphylococcus aureus to produce osteomyelitis in the NZW rabbit. The outcomes then were analyzed through radiographic assessment and microbiology identification tests.

**Results:** A total of 36 NZW rabbits underwent a distal femoral shaft osteomyelitis surgery. After experimental protocol established, osteomyelitis was noted and was successful infected with Staphylococcus aureus to promote osteomyelitis using the method at distal femoral shaft in all 36 NZW rabbits. We achieved 100% of inoculation of osteomyelitis in all 36 New Zealand White rabbits. No mortality noted among all rabbits involved in this study.

**Conclusion:** This is a simple and reliable method was demonstrated and recommended for surgery via femoral shaft on New Zealand White rabbits to create osteomyelitis.



## **PREVALENCE OF RISK FOR EATING DISORDER AMONGST INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA MEDICAL STUDENTS AND ITS ASSOCIATED FACTORS**

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**Introduction:** Eating disorders are a poorly understood condition characterised by severe psychiatric and medical manifestations, in which eating habits, physical health and psychosocial functioning are disturbed. College and university students are among the population who are prone to eating disorder.

**Objective:** The aim of this study is to determine the prevalence of eating disorders risk in the International Islamic University Malaysia (IIUM), Kuantan campus amongst the medical students and to identify its associated factors.

**Methodology:** A cross sectional study involving 200 medical students of IIUM Kuantan campus session 2014/2015 of all years (20-26 years old) of both genders using a self-administered questionnaire through an online website which is a Google drive between 29th June till 10th July 2015.

**Result:** This study revealed that the prevalence of risk for eating disorder among IIUM Kuantan campus medical students is 15.0 percent. On the same note, the risk is noted to be higher among single female of Malay ethnicity, being middle child, overweight and physically inactive; albeit none of these factors significantly associated with risk of eating disorder among this population.

**Conclusion:** The prevalence of those who have the risk of eating disorder in this study is comparable to the result from the previous studies conducted among college and university students in Malaysia. Nevertheless, the risk of eating disorder is documented among IIUM medical students and warrant a closer look and appropriate reference for those who have the risk.

## **NICOTINE DEPENDENCE AND QUIT SMOKING: A PRELIMINARY SURVEY AMONG ADULT MALES IN KUANTAN, MALAYSIA**

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**Introduction:** Most of the smokers remain as active smokers and unrecognized their nicotine dependence (ND) level. ND was an important reason to addict smoking.

**Objectives:** The study determined the prevalence of smoking and ND among adult males and their difficulties to quit smoking.

**Methodology:** A cross-sectional study was conducted among 296 males aged 18 years and above from Felda Bukit Goh at Kuantan, Malaysia in 2015. Socio-economic status, history of smoking, quit attempt and reasons for failing quit were explored by using a self-administered questionnaire. Level of ND was assessed by validated Malay version of Fagerstrom Test for ND questionnaires. Stratified analysis on relationship among socio-economic status and current smoking status, level of ND was done.

**Results:** The prevalence of current smokers was 61.1% and the prevalence of low and moderate to high ND level was 76.2 % and 23.8 % respectively. Among them 54.1% of smokers were tried to quit smoking ranging from 1 to 30 times by self-awareness (48%) and their main reason to fail was

addiction (71.9%). Smokers with monthly household income (RM2000-2999) was independently associated with moderate to high ND with AOR=4.73 (95% CI 1.83-12.18) compared to those with income (less than RM2000).

**Conclusion:** Despite high prevalence of smoking, majority of smokers have low ND and addiction was the main reason to fail quit attempt. Household income was a contributing factor for moderate to high ND. The finding provides hope for the success of smoking cessation programme if it is to be done in this locality.

## **‘I CAN’T PRAY’ – THE SPIRITUAL NEEDS OF MALAYSIAN MUSLIM PATIENTS SUFFERING FROM DEPRESSION**

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**Introduction:** The mainstay of treatment of depression relies on pharmacological and psychological treatments. On top of that, evidence also recognizes the vital role of spirituality for human wellness which leads to growing interest in its utilization to treat depression. However, research on spirituality among Muslims in relation to depression is relatively scarce.

**Objective:** The aim of this study is to explore the understanding of spirituality among Muslim patients with depression, and to explore their spiritual needs.

**Methodology:** This is a qualitative study conducted on 10 depressed Muslim patients at the UKM Medical Centre. Purposive sampling was done to ensure diversity of subjects. Individual in-depth interviews were conducted using semi-structured questionnaire guidelines. The data were transcribed verbatim and analysed using a thematic approach.

**Result:** Out of 10 patients, almost all of them expressed spiritual needs. Two major themes emerged in relation to the spiritual needs which are (i) religious needs; need for worship, religious knowledge and guidance, religious reminders, and (ii) existential needs; need for calmness, sensitivity and empathy, self-discipline, certainty, hope, physical help, ventilate and meaning of illness. These needs are essential for patients during the time of crisis.

**Conclusion:** The majority of patients expressed spiritual needs which are required during the process of recovery and this provides an opportunity to incorporate spiritual approaches in the treatment of depression. However, more studies are needed to demonstrate its scientific basis and to design an effective psycho-spiritual treatment modality so that the ‘holistic’ or ‘bio-psychosocial-spiritual’ treatment can be integrated by health care professionals to those in need.

## **HYPERTENSION PREVALENCE IN ADULT TYPE-2 DIABETES PATIENTS: A PRELIMINARY RETROSPECTIVE COHORT STUDY IN KUANTAN, PAHANG, MALAYSIA**

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**Introduction:** Hypertension (HPT) is the most common co-morbidity among type-2 diabetes mellitus (T2DM) patients which ominously increased their morbidity and mortality from cardiovascular diseases (CVD).

**Objective:** We aimed to determine the prevalence and control status of HPT, and also the glyceemic control among T2DM patients in the primary care clinic.

**Methodology:** It was a retrospective study of 154 patients' record, aged  $\geq 18$  years selected by random sampling. Of these, 47% were Malay, 45% Chinese and 9% Indian.

**Results:** The prevalence of HPT among T2DM was 72.1% and majority were women (60%). Out of 82 T2DM patients aged  $>60$  years, 80.5% were hypertensive. 67.2% of T2DM patients between age 40-60 and 25% age  $<40$  years were also hypertensive ( $p=0.003$ ). BP controlled status were classified into controlled, uncontrolled, systolic and diastolic HPT. All patients were compared between the last visit and one year before, which reported 55.8% vs. 33.1%, 14.9% vs. 51.9%, 20.1% vs. 10.4% and 9.1% vs. 4.5% respectively. There were significant rises in percentage of uncontrolled diastolic HPT (by 4.6%) and uncontrolled systolic HPT (by 9.7%),  $p<0.0001$ , from the first visit. BP controlled status for aged group  $>60$  years showed increments in systolic HPT and diastolic HPT which were significant ( $p<0.0001$ ). Regarding glyceemic parameters, 71.4% T2DM patients had poor controlled level of Hb1Ac ( $\geq 6.5$ ) and only 20.1% remained controlled after one year ( $p<0.0001$ ).

**Conclusions:** The study concluded High prevalence of HPT, increasing prevalence of systolic HPT and diastolic HPT in older age group as well as poor glyceemic control among T2DM patient which mandate aggressive and fruitful intervention.

## FACTORS AFFECTING ONLINE HEALTH INFORMATION SEEKING BEHAVIOUR VIA FACEBOOK IN MALAYSIA: THE MALAYSIAN MEDICAL GAZETTE EXPERIENCE.

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**Introduction:** The popularity of social media networks (SNSs) such as Facebook offer enormous potential for online health information sharing. The Malaysian Medical Gazette (MMG) is an online health education website ([www.mm gazette.com](http://www.mm gazette.com)) that incorporates SNSs plugins to increase reader engagement and propagate information.

**Objective:** This study aims to identify peak traffic times and factors that influence article engagement among MMG readers.

**Methodology:** The data was collected from Google Analytics (Malaysian Medical Gazette) and Facebook Share Analytics (4.2.5 Plug-in) over 22 months from 1st January 2014 to 31st October 2015.

**Results:** Out of 655 posts, 169 articles were found to have more than 1000 total counts. The most frequent monthly total page views were on weekdays ( $n=20$ ), with 4 peak traffic times noted at 8 A.M.-9 A.M., 4 P.M.-5 P.M., 9 P.M.- 10 P.M. and 11 P.M.- 12 A.M. Bahasa Malaysia articles received the most total counts with 136 articles achieving more than 1000 total counts. Articles

discussing medications (12.4%) and women's health (10.7 %) were the most frequent categories of articles receiving more than 1000 total counts.

**Conclusion:** The results suggest that MMG readers engage with the website more on weekdays and during several peak times. Articles written in Bahasa Malaysia and those discussing medications and women's health are the most popular. Further studies on factors influencing health information sharing behaviour and cross disciplinary research involving healthcare professionals and social media marketers will increase understanding of effective use of SNSs for mass dissemination of information.

## **KNOWLEDGE, ATTITUDE AND PRACTICE ON DENGUE AMONG ADULT POPULATION IN FELDA SUNGAI PANCHING TIMUR, KUANTAN, PAHANG.**

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**Introduction:** With increasing number of dengue cases in Malaysia, it's of utmost importance that immediate action be taken to limit the epidemic. Since dengue control is a behavioral problem, the knowledge, attitude and practice in population needs to be studied in order to control the disease.

**Objective:** The aim of this study is to assess knowledge, attitude and practice regarding dengue and its associated factors among adult residents of Felda Sungai Panching Timur (SPT), Kuantan, Pahang, 2014.

**Methodology:** A cross sectional study was carried out involving 265 adult respondents. A face to face interview questionnaire which was divided into 2 parts (Part A: Sociodemographic; Part B: Knowledge, Attitude and Practice) was used. Data was analyzed using descriptive statistics, simple and multiple logistic regression.

**Results:** 53.2% of the respondents had good knowledge about dengue and it was found that the main source of information from mass media (76.6%). However, only 43.4% were found to have good attitude towards dengue. Multiple Logistic Regression analysis showed there was no association between sociodemographic characteristics with the level of knowledge and attitude towards dengue. There was also no association found between knowledge of dengue and the attitude of the respondents towards dengue. Descriptive analysis on the practice of dengue showed majority of the respondents who had possible breeding site for Aedes mosquitos (water container, drains/gutter roof/flower pots/tires) in their compound practiced good habit in preventing the Aedes mosquitoes from breed.

**Conclusion:** Although knowledge and practice towards dengue is good, their attitude require improvement.

### **Review**

## **KNOWLEDGE, ATTITUDE AND PRACTICE of MEDICAL PERSONNEL ON SMOKING CESSATION GUIDELINES:A REVIEW ON ASSOCIATIONS AND QUESTIONNAIRES**

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Number of active smokers in Malaysia is increasing despite availability of stop smoking clinics and smoking cessation medications. Other than smokers' level of motivation to quit smoking, competency of the healthcare professionals involved in providing smoking cessation intervention using evidence-

based guidelines needs to be considered. Hence, knowledge, attitude and practice (KAP) of the healthcare providers in relation to existing clinical practice guidelines on smoking cessation should be assessed. In this review, we look at the factors contributing to the KAP of medical personnel on the guidelines and also the previous available assessment tool, mainly in the form of a validated questionnaire, for the purpose of applying it to the context of the Malaysian healthcare providers.

### ***Review***

## **IS AUTONOMY A UNIVERSAL VALUE OF HUMAN EXISTENCE? SCOPE OF AUTONOMY IN MEDICAL PRACTICE: A COMPARATIVE STUDY BETWEEN WESTERN MEDICAL ETHICS AND ISLAMIC MEDICAL ETHICS**

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The practice of contemporary medicine has been tremendously influenced by western ideas and it is assumed by many that autonomy is a universal value of human existence, although it is not shared by all cultures. In the World Health Report 2000, the World Health Organization (WHO) considered autonomy a “universal” value of human life against which every health system in the world should be judged. Further in Western bioethics, patient autonomy and self-governance prevails in all sectors of social and personal life, a concept unacceptable to some cultures. Since the beginning of the recorded history of human civilization, religious beliefs and practices have been intertwined with the practice of medicine, which is mostly viewed by scientists as mystical and without scientific proof. Herein lies the dilemma, whether medical professionals should respect the cultural and religious beliefs of their patients, despite their perceived detrimental influence or seek to supplant them with modern rational and empirical scientific research and or evidence-based medicine despite their abject refusal. In this paper we aim to discuss some of the limitations of patient's autonomy by comparing the process of reasoning in western medical ethics and Islamic medical ethics, in order to examine the possibility and desirability of arriving at a single, unitary and universally acceptable notion of medical ethics. We propose a more flexible viewpoint that accommodates different cultural and religious values in interpreting autonomy and applying it in an increasingly multilingual and multicultural, contemporaneous society in order to provide the highest level of care possible.