

This section of the journal serves to highlight the works and researches done by local doctors or doctors either in Brunei Darussalam or in collaborations with other centres that have been published in regional or international journals. This also includes works published as part of collaboration with centres outside of Brunei Darussalam. These works include review articles, original articles and case reports published between 15th April 2012 to 14th June 2013. (Some publications have been published or indexed at a later date than publication).

Complicated intra-abdominal infections in a worldwide context: an observational prospective study (CIAOW Study).

Sartelli M, Catena F, Ansaloni L, Moore E, Malangoni M, Velmahos G, Coimbra R, Koike K, Leppaniemi A, Biffi W, Balogh Z, Bendinelli C, Gupta S, Kluger Y, Agresta F, Di Saverio S, Tugnoli G, Jovine E, Ordonez C, Gomes CA, Junior GA, Yuan KC, Bala M, Peev MP, Cui Y, Marwah S, Zachariah S, Sakakushev B, Kong V, Ahmed A, Abbas A, Gonsaga RA, Guercioni G, Vettoretto N, Poiasina E, Ben-Ishay O, Díaz-Nieto R, Massalou D, Skrovina M, Gerych I, Augustin G, Kenig J, Khokha V, Tranà C, Kok KY, Mefire AC, Lee JG, Hong SK, Lohse HA, Ghnnam W, Verni A, Lohsiriwat V, Siribumrungwong B, Tavares A, Baiocchi G, Das K, Jarry J, Zida M, Sato N, Murata K, Shoko T, Irahara T, Hamedelneel AO, Naidoo N, Adesunkanmi AR, Kobe Y, Attri A, Sharma R, Coccolini F, El Zalabany T, Khalifa KA, Sanjuan J, Barnabé R, Ishii W.

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ABSTRACT

Despite advances in diagnosis, surgery, and antimicrobial therapy, mortality rates associated with complicated intra-abdominal infections remain exceedingly high. The World Society of Emergency Surgery (WSES) has designed the CIAOW study in order to describe the clinical, microbiological, and management-related profiles of both community- and healthcare-acquired complicated intra-abdominal infections in a worldwide context. The CIAOW study (Complicated Intra-Abdominal Infection Observational Worldwide Study) is a multicenter observational study currently underway in 57 medical institutions worldwide. The study includes patients undergoing surgery or interventional drainage to address complicated intra-abdominal infections. This preliminary report includes all data from

almost the first two months of the six-month study period. Patients who met inclusion criteria with either community-acquired or healthcare-associated complicated intra-abdominal infections (IAIs) were included in the study. 702 patients with a mean age of 49.2 years (range 18-98) were enrolled in the study. 272 patients (38.7%) were women and 430 (62.3%) were men. Among these patients, 615 (87.6%) were affected by community-acquired IAIs while the remaining 87 (12.4%) suffered from healthcare-associated infections. Generalized peritonitis was observed in 304 patients (43.3%), whereas localized peritonitis or abscesses was registered in 398 (57.7%) patients. The overall mortality rate was 10.1% (71/702). The final results of the CIAOW Study will be published following the conclusion of the study period in March 2013.

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Note: Collaboration work with oversea centre. Mr Kenneth Kok, Department of Surgery, RIPAS Hospital.

Article freely available for journal website at <http://www.wjes.org/content/8/1/1>

2013 WSES guidelines for management of intra-abdominal infections.

Sartelli M, Viale P, Catena F, Ansaloni L, Moore E, Malangoni M, Moore FA, Velmahos G, Coimbra R, Ivatury R, Peitzman A, Koike K, Leppaniemi A, Biffi W, Burlew CC, Balogh ZJ, Boffard K, Bendinelli C, Gupta S, Kluger Y, Agresta F, Di Saverio S, Wani I, Escalona A, Ordonez C, Fraga GP, Junior GA, Bala M, Cui Y, Marwah S, Sakakushev B, Kong V, Naidoo N, Ahmed A, Abbas A, Guercioni G, Vettoretto N, Díaz-Nieto R, Gerych I, Tranà C, Faro MP, Yuan KC, Kok KY, Mefire AC, Lee JG, Hong SK, Ghnnam W, Siribumrungwong B, Sato N, Murata K, Irahara T, Coccolini F, Lohse HA, Verni A, Shoko T.

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ABSTARCT

Despite advances in diagnosis, surgery, and antimicrobial therapy, mortality rates associated with complicated intra-abdominal infections remain exceedingly high. The 2013 update of the World Society of Emergency Surgery (WSES) guidelines for the management of intra-abdominal infections contains evidence-based recommendations for management of patients with intra-abdominal infections.

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Article freely available for journal website at <http://www.wjes.org/content/8/1/3>

Personalized diagnostics and biosensors: a review of the biology and technology needed for personalized medicine.

Ahmed MU, Saaem I, Wu PC, Brown AS.
Crit Rev Biotechnol. 2013 Apr 22. [Epub ahead of print]

ABSTRACT

Abstract Exploiting the burgeoning fields of genomics, proteomics and metabolomics improves understanding of human physiology and, critically, the mutations that signal disease susceptibility. Through these emerging fields, rational design approaches to diagnosis, drug development and ultimately personalized medicine are possible. Personalized medicine and point-of-care testing techniques must fulfill a host of constraints for real-world applicability. Point-of-care devices (POCDs) must ultimately provide a cost-effective alternative to expensive and time-consuming laboratory tests in order to assist health care personnel with disease diagnosis and treatment decisions. Sensor technologies are also expanding beyond the more traditional classes of biomarkers - nucleic acids and proteins - to metabolites and direct detection of pathogens, ultimately increasing the palette of available techniques for the use of personalized medicine. The technologies needed to perform such diagnostics have also been rapidly evolving, with each generation being increasingly sensitive and selective while being more resource conscious. Ulti-

mately, the final hurdle for all such technologies is to be able to drive consumer adoption and achieve a meaningful medical outcome for the patient.

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Note: Collaboration work with Department of Electrical and Computer Engineering, Duke University, Durham, North Carolina, USA.

Detection of Aedes albopictus pre-imaginal stages in brackish water habitats in Brunei Darussalam.

Idris FH, Usman A, Surendran SN, Ramasamy R.
J Vector Ecol. 2013 Jun;38(1):197-9. doi: 10.1111/j.1948-7134.2013.12029.x

ABSTRACT

Not available

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Clinical efficacy of sevelamer hydrochloride in patients with end-stage renal disease: a retrospective study.

Alam S, Hussain A, Daiwajna R, Tan J.
Singapore Med J. 2013 May;54(5):263-6.

ABSTRACT

Introduction: Sevelamer hydrochloride (Renagel) is frequently used as a second-line phosphate binder in patients on renal replacement therapy. Many studies have shown that sevelamer can improve vascular calcification, serum uric acid and low-density lipoprotein (LDL) cholesterol levels. The main objectives of this study were to assess the efficacy of sevelamer against calcium-based phosphate binders, as well as its tolerability and side-effect profile. Methods: This was a retrospective study that included all patients on renal replacement therapy (between 2008 and 2011) who had previously received calcium-based binders for ≥ 6 months and were subsequently switched to sevelamer. Data collected from the patients' medical records included demographics, as well as renal parameters three months prior to sevelamer treatment, and at three and six months post treatment. The study excluded patients on multiple, concomi-

tant phosphate binders or with functioning renal transplants, and those who were noncompliant or had inadequate follow-up blood investigations. Results: A total of 39 patients were included in the study. No major side effects were reported by any of the patients. There were improvements in calcium, phosphate, uric acid and LDL cholesterol levels at three and six months post-sevelamer treatment. Conclusion: We found sevelamer to be superior to calcium-based phosphate binders in reducing serum calcium, phosphate, uric acid and LDL cholesterol levels in our patient population with advanced renal bone disease. Sevelamer also appears to be well tolerated with no significant side effects.

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A study of factors that influence the number of visits following traumatic dental injuries.

Keasberry J, Munyombwe T, Duggal M, Day PF. *Br Dent J.* 2013 Jun 7;214(11):E28. doi: 10.1038/sj.bdj.2013.532.

ABSTRACT

Objective: To investigate in children the factors that influence the number of visits per tooth following traumatic dental injuries (TDI) to the permanent dentition. **Method:** A retrospective convenient sample of 100 children who had been treated for TDI at Leeds Dental Institute was identified. A multilevel negative binomial regression model was developed to identify factors influencing the number of visits per tooth. Data including age, gender, postcode, number of visits, treatment provided, number of teeth injured, type of periodontal and hard tissue diagnoses, healing modality, root maturity, pulp and tooth survival, and any history of previous or subsequent trauma to same tooth were analysed using SPSS 18.0 and MLWIN. **Results:** 186 teeth were affected by trauma in 100 patients. Median total number of visits per tooth was six visits with a range of 1-22 visits. The factors that were found to influence number of visits included: distance travelled, hard tissue diagnosis, periodontal injury diagnosis and pulp survival ($P < 0.05$). A mile increase in distance travelled from home to clinic led to a 1.2% reduction in the number of visits per month (-0.012 ; SE 0.005), a diagnosis of a severe hard tissue injury was associated with 44% increase (0.362; SE 0.105) compared to no hard

tissue injury, a diagnosis of a complicated periodontal injury compared to no periodontal injury was associated with a 30% increase (0.260; SE 0.124), a diagnosis of a uncomplicated periodontal injury compared to no periodontal injury was associated with a 31% increase (0.271; SE 0.124) and a diagnosis and treatment for a non-vital tooth in comparison to a vital tooth led to a 26% increase (0.230; SE 0.080) in the number of visits. There was a significant variation in the number of treatment visits at patient level (0.260; SE 0.048). **Conclusion:** Complicated hard tissue injuries, complicated and uncomplicated periodontal injuries, diagnosis and treatment for pulp necrosis and the distance between clinic and patient's home all significantly influenced the number of visits needed to treat TDI.

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Gastro-oesophageal reflux disorders among Nepalese residing in South-east Asia.

Chong VH, Padam BC, Hermanta RG, Anand J. *Med J Malaysia.* 2013 Jun;68(3):234-8.

ABSTRACT

INTRODUCTION: Gastro-oesophageal reflux disorders (GORD) are common in Western countries and has been reported to be increasing in the East. This study assessed the prevalence of GORD among the Nepalese residing in the Brunei Darussalam.

METHODS: Nepalese residing in two areas were invited to participate in this cross sectional questionnaire study. GORD was considered to be present if there was any heartburn, regurgitation or both experienced at least monthly that were associated with impairment of quality of life measures. Overall, 304 out of 320 (female 68.4%) with completed questionnaire were available for analysis.

RESULTS: Overall 45.1% had reported symptoms of gastroesophageal reflux: heartburn and regurgitation (21.4%), heartburn alone (9.2%) and regurgitations alone (14.5%). However, only 7.2% had GORD. GORD was significantly more common among women ($p=0.005$), being shorter in height ($p=0.013$), those with co morbid conditions ($p=0.023$) and previously had endoscopy ($p=0.006$). There were no difference in age, duration of residence, body mass index (kg/m^2), alcohol intake, tobacco and supplements use (all $p > 0.05$). GORD was also significantly associated with the presence of psychosomatic symptoms such as back-

ache, depression, fatigue, headache and insomnia (all $p < 0.05$). Subjects with GORD also experienced significantly more other upper gastrointestinal complaints such as nausea, vomiting, early satiety, post-prandial fullness, and abdominal bloating (all $p < 0.05$).

CONCLUSIONS: The prevalence of GORD among Nepalese residing in Brunei Darussalam was 7.2%. Certain subjects' profiles were associated with GORD and patients with GORD were likely to experience more psychosomatic and other gastrointestinal symptoms.

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Prevalence and risk factors of methotrexate hepatotoxicity in Asian patients with psoriasis.

Yeo CM, Chong VH, Earnest A, Yang WL.

World J Hepatol. 2013 May 27;5(5):275-80. doi: 10.4254/wjh.v5.i5.275.

ABSTRACT

INTRODUCTION: To establish the prevalence of liver fibrosis and to evaluate the possible risk factors for fibrosis and progression in Asian with psoriasis treated with methotrexate (MTX) based on liver histology.

METHODS: Patients with psoriasis treated with MTX referred to the Department of Gastroenterology, Tan Tock Seng Hospital for liver biopsy were identified and retrospectively studied. Patient case notes and electronic records were retrieved from the hospital database and relevant data collated. Histological changes of liver biopsies were staged according to Roengik score. The factors assessed were age, gender, ethnicity, cumulative dose of MTX, presence of comorbid conditions such as diabetes, hypertension, hyperlipidemia, and ethanol use. We also assessed the histological change in those with multiple liver biopsies. Statistical analysis was performed using Stata V.9.2.

RESULTS: There were altogether 59 patients (median age 50 years old, range 22-81 years old, male, 88%) with 98 biopsies liver biopsies; 6 normal [median cumulative dose (MCD), 2285 mg]; 62

grade I (MCD 2885 mg), 23 grade II (MCD 1800 mg) and 7 grade III (MCD 1500 mg). There was no grade IV or cirrhosis. The prevalence of liver fibrosis (grade III) was 12%. Of the factors assessed, diabetes ($P = 0.001$) and hypertension ($P = 0.003$) were significant for fibrosis on univariate analysis but not on multivariate analysis. Of the 26 patients who had more than one biopsy (median 2, range 2-6), 57.7% ($n = 15$) were stable, 34.6% ($n = 9$) had progression and 7.7% ($n = 2$) had regression of histological grades. On univariate analysis, non-Chinese ethnicity ($P = 0.031$), diabetes ($P = 0.018$), and hyperlipidemia ($P = 0.011$) were predictive of progression of grades, but these were not significant on multivariate analysis.

CONCLUSION: Liver fibrosis in Asian psoriatic population on MTX is comparable to the West. Cumulative dose was not associated with liver fibrosis. Metabolic syndrome is important factors.

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Article freely available for journal website at <http://www.wjgnet.com/1948-5182/full/v5/i5/275.htm>

Use of propranolol for treatment of large infantile haemangiomas- a report of two cases and review of the literature.

Chandran S, Ari D, Jose J.

Ann Acad Med Singapore. 2013 May;42(5):253-6.

ABSTRACT

No abstract available

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