

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 August 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.

World J Emerg Surg. 2013 Jan 3;8(1):1. doi: 10.1186/1749-7922-8-1.

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]

ABSTARCT

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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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

ABSTARCT

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.

ABSTARCT

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.

ABSTARCT

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.

ABSTARCT

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.

ABSTARCT

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.

ABSTARCT

No abstract available

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Note: Ari D and Jose J; Department of Paediatric, RIPAS Hospital. Work done in Brunei Darussalam.

Article freely available for journal website at <http://www.annals.edu.sg/pdf/42VolNo5May2013/V42N5p253.pdf>

Rising incidence of primary liver cancer in Brunei Darussalam.

Chong RJ, Abdullah MS, Hossain MM, Telisinghe PU, Chong VH.

Asian Pac J Cancer Prev. 2013;14(6):3473-7.

ABSTARCT

Background: Primary liver cancer (PLC) is the fifth most common malignancy worldwide and is still

associated with high mortality. Hepatocellular carcinoma (HCC) and cholangiocarcinoma are the two most common PLCs, and their incidence varies across regions. Currently there are no published data available on the incidence of PLC in Brunei Darussalam. Materials and Methods: All proven PLCs between 2000 and 2009 were identified from the National Cancer Registry and reviewed. Metastatic diseases were excluded. A total of 123 cases (male 65.8%, female 34.2%) were identified and their data collected for calculation of the age standardised rate (ASR). Results: The most common type of PLC was HCC (87.8%) followed by cholangiocarcinoma (10.6%). There were two cases of hepatoblastoma. The mean age at diagnosis was 63.2 years. The overall ASR of PLC was 8.2/100,000, increasing from 4.5/100,000 population in 2000 to 11.4/100,000 population in 2009. The rates were higher among males (12.0/100,000) than females (4.7/100,000). Among the ethnic groups, Chinese had the highest rates (overall 13.1/100,000 with none recorded in 2000 to 30.3/100,000 in 2009) compared to the Malays (overall 8.5/100,000 increasing from 4.5/100,000 in 2000 to 12.3/100,000 in 2009) and the indigenous groups. The incidence increased after the age of 50 and was highest among the 75-79 age groups. Increase was seen for HCC but not for cholangiocarcinoma. Conclusions: The most common type of PLC is HCC and the annual incidence of PLC is increasing in Brunei Darussalam, rates being higher in males and Chinese.

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Microscopic polyangiitis complicated by intracerebral hemorrhage and pulmonary hemorrhage in a pediatric patient.

Tan J, Hussain A, Daiwajna R, Chai LK, Lim E, Han A. Am J Case Rep. 2013 Jul 25;14:276-9. doi: 10.12659/AJCR.889064. Print 2013.

ABSTRACT

OBJECTIVE: Rare disease. **BACKGROUND:** MPO ANCA-associated vasculitis is very rare in children. Renal disease is almost universally present but

lung and central nervous system involvement are not commonly reported. **CASE REPORT:** We present a pediatric case of microscopic polyangiitis with the unusual presentation of pauci-immune glomerulonephritis, intracerebral hemorrhage and pulmonary hemorrhage. The neurological and pulmonary symptoms settled after treatment with cyclophosphamide and plasmapheresis. However, there was no renal recovery and the patient was rendered dialysis-dependent. **CONCLUSIONS:** We believe that this is the first reported case of pediatric microscopic polyangiitis with central nervous system involvement. The disease may have a sub-clinical presentation resulting in chronic damage to different organs. Prompt treatment of acute disease with immunosuppression and plasmapheresis can halt disease progression in these patients.

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Article freely available for journal website or PubMed Central <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3726245/>

Knowledge, attitude and practice of oral and dental healthcare in pregnant women.

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Oman Med J. 2013 Jul;28(4):288-91. doi: 10.5001/omj.2013.80.

ABSTRACT

OBJECTIVES: Pregnant women are more susceptible to periodontal disease like gingivitis. Periodontal disease may be associated with adverse pregnancy outcomes. There is no published literature on dental health in pregnant women in Brunei, Darussalam. The objective of this study was to assess women's knowledge and attitude towards oral and dental health during pregnancy and to examine their self-care practices in relation to oral and dental health. This study was carried out at the maternal child health clinic, Jubli Perak Sengkurong Health Centre, Brunei, Darussalam.

METHODS: This was a cross-sectional descriptive and analytical study conducted at the maternal child health center in Brunei, Darussalam. The study group was comprised of 95 pregnant women attending the MCH clinic, Jubli Perak Sengkurong Health Centre, September 2010, using convenience sampling method. A self-administered questionnaire was used, after it was pre-tested and validated.

ed. Statistical analysis was done using SPSS version 16.

RESULTS: Of the total study group, 97.9% responded to the questionnaire and participated in the study. All the women brushed at least twice daily. However, only 40.9% flossed daily, 31.2% brushed after meals and 26.9% had a dental check-up at least twice a year. The knowledge related to dental care was also poor among the pregnant women. Though the majority of them (96.8%) agreed that women should have a dental check-up during pregnancy, only 55.9% actually practiced this. This raises serious concern since pregnant women may need extra oral and dental care due to susceptibility to gum diseases during pregnancy, which may contribute to low birth weight babies and premature births.

CONCLUSION: This study highlights important gaps in dental knowledge and practices related to oral and dental healthcare among pregnant women in Brunei, Darussalam. More intense dental health education, including oral health promotion in maternal child health centers can lead to improved oral and dental health, and ultimately pregnancy outcomes

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Nasopharyngeal tuberculosis and carcinoma: A rare concurrence

Ninan S, Idris R, Chong VH, Telisinghe PU.
Brit J Med Health Sci. 2013. 1;14-21.

ABSTRACT

Nasopharyngeal carcinoma (NPC) remains endemic in the East and an important cause of morbidity and mortality. In our region where the prevalence of NPC is high, malignancy should be ruled out in cases presenting with serous otitis media due to nasopharyngeal mass. Importantly, infectious disease like tuberculosis (TB) is also frequently seen in this region and manifestations can be varied and mimic many neoplasm. In regions where both conditions are still common, concomitant pathology can occur and can cause diagnostic dilemma if not suspected. This can lead to poor outcome. We present a rare case of synchronous primary nasopharyngeal TB and NPC in a 50-year-old male who presented with chronic otitis media. Initial evaluations diagnosed the nasopharyngeal TB but missed the NPC. The NPC was diagnosed four months later when the patient presented with an episode of severe epistaxis while on anti-tuberculous treatment. Our case highlights the importance of considering synchronous pathologies especially in cases where symptoms persist in spite of treatment. To the best of our knowledge, no such presentation has been previously reported in the world literature.

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http://www.bjmhs.baar.org.uk/uploads/june%20issue/BJMHS-1148-13-NASOPHARYNGEAL-TUBERCULOSIS_AND-CARCINOMA.pdf