

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 October to 14th December 2013. (Some publications have been published or indexed at a later date than publication).

The prevalence of dengue virus in Brunei Darussalam during January - November 2010.

Rahman ZH, Osman O, Muharram SH, Mabruk M. Southeast Asian J Trop Med Public Health. 2013 Jul 4;44(4):594-601.

ABSTARCT

The aim of this study was to retrospectively determine the prevalence of dengue virus from April 2010 to November 2010 in Brunei Darussalam. A total of 250 serum samples from dengue diagnosed patients were examined. All serum samples were tested for dengue IgM and IgG antibodies and dengue NS1 antigen using the PanBio dengue ELISA commercial kit. To determine the prevalence of dengue virus serotype in the country, serotyping was performed for the 14 samples that were positive for NS1 antigen. Dengue virus serotyping was carried out using the conventional reverse transcriptase-polymerase chain reaction (RT-PCR). Of the 250 serum samples included in the study, 196 were laboratory dengue confirmed cases. Dengue virus serotype 1 (DENV-1) was the predominant circulating serotype, followed by DENV-3 and DENV-2. This is the first report of DENV-3 isolation in Brunei Darussalam.

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Lymphoepithelial carcinoma of the parotid gland, a very unusual tumor: Case report and review.

Anantharajan N, Ravindranathan N, Rajadurai P. Ear Nose Throat J. 2013 Sep;92(9):E7-9.

ABSTARCT

Lymphoepithelial carcinoma (LEC) of the parotid

gland is rare. When it does occur, it is usually seen in Asians and Greenland Eskimos. An association with Epstein-Barr virus (EBV) infection has been documented. We report a case of EBV-associated LEC of the parotid gland in a 30-year-old Chinese woman. The patient underwent a total parotidectomy with preservation of the facial nerve, followed by postoperative radiotherapy. She recovered well without complications or recurrence. We present this case in view of the rarity of LEC, which has prevented extensive study of its clinical course, optimal treatment options, and overall prognosis.

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Delayed orthodontic extrusion of a traumatically intruded immature upper permanent incisor - a case report.

Umesan UK, Chua KL, Kok EC. Dent Traumatol. 2013 Sep 23. doi: 10.1111/edt.12078. [Epub ahead of print]

ABSTARCT

Dental injuries are probably the most common orofacial injuries sustained during sports and play. Intrusion or intrusive luxations occur when the teeth are driven into the alveolus by an axially directed impact. This article describes the clinical case of an 8-year-old patient who suffered complete intrusive luxation of an immature permanent central incisor following an accident. An attempt at spontaneous re-eruption failed to facilitate re-emergence of the tooth beyond 2 mm. The recommended wait-and-see strategy in anticipation of spontaneous re-eruption should cease to be an option when no further elongation can be observed.

Orthodontic extrusion or surgical re-positioning is a valid treatment alternative when the former fails. In this case, although the recommended time period for effecting orthodontic extrusion had elapsed, this procedure was undertaken successfully presumably owing to the application of controlled, biologically optimal forces. A review of the extruded tooth a year later revealed no clinical or radiographic signs of loss of vitality. This was confirmed radiographically by the completion of root development, an intact lamina dura and no evident signs of resorption.

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Assessing post-anterior cruciate ligament reconstruction ambulation using wireless wearable integrated sensors.

Arosha Senanayake SM, Ahmed Malik O, Mohammad Iskandar P, Zaheer D. J Med Eng Technol. 2013 Nov;37(8):498-510. doi: 10.3109/03091902.2013.837529.

ABSTARCT

Abstract A hardware/software co-design for assessing post-Anterior Cruciate Ligament (ACL) reconstruction ambulation is presented. The knee kinematics and neuromuscular data during walking (2-6 km h⁻¹) have been acquired using wireless wearable motion and electromyography (EMG) sensors, respectively. These signals were integrated by superimposition and mixed signals processing techniques in order to provide visual analyses of bio-signals and identification of the recovery progress of subjects. Monitoring overlapped signals simultaneously helps in detecting variability and correlation of knee joint dynamics and muscles activities for an individual subject as well as for a group. The recovery stages of subjects have been identified based on combined features (knee flexion/extension and EMG signals) using an adaptive neuro-fuzzy inference system (ANFIS). The proposed system has been validated for 28 test subjects (healthy and ACL-reconstructed). Results of ANFIS showed that the ambulation data can be used to distinguish subjects at different levels of recuperation after ACL reconstruction.

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CD8+ lymphocytes and apoptosis in typical and atypical medullary carcinomas of the breast.

Nurlaila I, Telisinghe PU, Ramasamy R. Immunol Lett. 2013 Oct 11;156(1-2):123-126. doi: 10.1016/j.imlet.2013.10.001.

ABSTRACT

Medullary breast carcinoma (MBC) is a form of ductal invasive carcinoma (DIC) characterized by an abundant infiltration of the tumour by lymphocytes. MBC has been classified histologically into typical medullary carcinoma (TMC) and atypical medullary carcinoma (AMC), with TMC having a better prognosis than AMC and other DIC. The distribution of CD8+ lymphocytes within tumour nests and lymphocyte tracts, and apoptosis in lymphocytes and tumour cells within tumour nests, were studied in archived formalin fixed and paraffin embedded tissues of TMC and AMC. CD8+ lymphocytes tend to accumulate along the margins of lymphocyte tracts that adjoin tumour nests. There were significantly more CD8+ lymphocytes within tumour nests of TMC than AMC. TMC also tended to have more CD8+ lymphocytes within lymphocyte tracts than AMC. Apoptosis of lymphocytes in contact with tumour cells and of tumour cells in contact with lymphocytes was observed in both AMC and TMC within tumour nests but differences in the proportions of apoptotic tumour cells and lymphocytes between the two tumour types could not be established. The findings are consistent with CD8+ cytotoxic lymphocyte-mediated immunity contributing to the more favourable prognosis for TMC compared to AMC.

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Biochemical and psychometric evaluation of Self-Healing Qigong as a stress reduction tool among first year nursing and midwifery students.

Chan ES, Koh D, Teo YC, Hj Tamin R, Lim A, Fredericks S. Complement Ther Clin Pract. 2013 Nov;19(4):179-83. doi: 10.1016/j.ctcp.2013.08.001.

ABSTARCT

BACKGROUND: Qigong, a traditional Chinese exercise, has a potential role in the management of stress.

OBJECTIVE: To examine the influence of Qigong training on depression, anxiety and stress.

DESIGN: A randomised control trial among first year student participants.

METHODS: Qigong was practised twice a week by the study group (n = 18) while a control group (n = 16) had no intervention. The Depression, Anxiety and Stress (DASS-21) and Patient Health Questionnaires (PHQ) were administered. Salivary biomarkers were also measured over a 10-week period.

RESULTS: After 10 weeks, only the Qigong group showed a statistically significant improvement in their depression, anxiety and stress scores. Similarly, increases in secretion rates of salivary immunoglobulin-A, and decreases in salivary cortisol concentrations were seen only in the Qigong group.

CONCLUSIONS: The practice of Qigong improves psychological states and mucosal immunity; as indicated by psychometric tests and biochemical markers of stress.

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Sigmoid volvulus in pregnancy: early diagnosis and intervention are important.

Ahmad A, Shing KK, Tan KK, Krasu M, Bickle I, Chong VH. Am J Emerg Med. 2013 Nov 16. pii: S0735-6757(13)00784-5. doi: 10.1016/j.ajem.2013.11.024. [Epub ahead of print]

No abstract available.

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Gluteraldehyde-induced colitis: a rare cause of lower gastrointestinal bleeding.

Mohamad MZ, Koh KS, Chong VH. Am J Emerg Med. 2013 Nov 26. pii: S0735-6757(13)00820-6. doi: 10.1016/j.ajem.2013.11.040. [Epub ahead of print]

No abstract available.

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Colorectal Cancer Screening among Government Servants in Brunei Darussalam.

Chong VH, Bakar S, Sia R, Lee J, Kassim N, Rajak L, Abdullah MS, Chong CF.
Asian Pac J Cancer Prev. 2013;14(12):7657-61.

ABSTRACT

Background: This study concerns uptake and results of colorectal cancer (CRC) screening of government servant as part of the Health Screening Program that was conducted in Brunei Darussalam in 2009. **Materials and Methods:** Government servants above the age of 40 or with family history of CRC were screened with a single fecal occult blood test (FIT, immunohistochemistry). Among 11,576 eligible subjects, 7,360 (66.9%) returned their specimen. Subjects with positive family history of CRC (n=329) or polyps (n=135) were advised to attend clinics to arrange screening. All the subjects with positive FIT (n=142, 1.9%) were referred to the endoscopy unit for counselling for screening colonoscopy. **Results:** Overall only 17.7% of eligible subjects attended for screening; 54.9% (n=79/142) of positive FIT, 8.8% (n=29/329) of positive family history of CRC and none with history of polyps (n=0/135). Of these, only 54 patients (50.5%) agreed for colonoscopy, 52 (48.6%) declined as they were asymptomatic, and one was not offered (0.9%) due to his very young age. On screening colonoscopy, 12.9% (n=7) had advanced lesions including a sigmoid carcinoma in situ and six advanced polyps. The other findings included non advanced polyps (n=21), diverticular (n=11) and hemorrhoids (n=26). One patient who missed his screening colonoscopy appointment re-presented two years later and was diagnosed with advanced right sided CRC. All the advanced lesions were detected in patients with positive FIT, giving a yield of 20.5% for advanced lesions including cancers in the 5.1% FIT positive subjects. **Conclusions:** Our study showed screening for CRC even with a single FIT was effective. However, the uptake rate was poor with just over half of the patients agreeing to screening colonoscopy. Measures to increase public awareness are important. Since one limitation of our study was the relatively small sample size, larger studies should be conducted in future.

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Article is freely available from the journal website at http://www.apocpcontrol.org/page/apjcp_issues_view.php?sid=Entrez:PubMed&id=pmid:24460349&key=2013.14.12.7657

Purple Urine Bag Syndrome (PUBS): An unusual and rare manifestation of a common condition.

Koh KS, Chong VH.
Ann Acad Med Singapore. 2013 Dec;42(12):700-1.

No abstract available.

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Article is freely available from the journal website <http://www.annals.edu.sg/pdf/42VolNo12Dec2013/V42N12p700.pdf>

Bilateral impacted femoral neck fracture in a renal disease patient.

Devkota P, Ahmad S.
Niger Med J. 2013 Sep;54(5):354-5. doi: 10.4103/0300-1652.122374.

Spontaneous bilateral femoral neck fracture in a renal disease patient is not common. We report a case of 47-year-old female patient with chronic renal failure and on regular hemodialysis for the past 5 years who sustained bilateral impacted femoral neck fracture without history of trauma and injury and refused any surgical intervention. The patient was mobilised on wheel chair one year after the fractures. The cause of the fracture and the literature review of the bilateral femoral neck fracture in renal disease are discussed.

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Article is freely available from the from PubMed Central <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3883240/>

End stage renal disease in Brunei Darussalam - report from the first Brunei Dialysis Transplant Registry (BDTR).

Tan J.
Ren Fail. 2013 Sep;35(8):1101-4.
doi: 10.3109/0886022X.2013.815101. Epub 2013 Jul 23.

ABSTARCT

The Brunei Dialysis and Transplant Registry (BDTR) was established in 2011 to collect data from patients undergoing renal replacement therapy (RRT) in Brunei Darussalam. The chief aims of the registry are to obtain general demographic data for RRT patients and to determine disease burden attributable to End Stage Renal Disease (ESRD). The registry population comprises of all ESRD patients treated in Brunei Darussalam. Data domains include general demographic data, medical history, ESRD etiological causes, laboratory investigations, dialysis treatment and outcomes. There were 545 prevalent RRT patients in Brunei at the end of 2011. The incidence and prevalence of ESRD were 265 and 1250 per million population. Hemodialysis (HD), Peritoneal Dialysis (PD) and Transplant comprised of 83%, 11% and 6% of the RRT population, respectively. Diabetes mellitus accounted for 57% of all new incident cases. The mean serum hemoglobin, phosphate, calcium and iPTH were 11.0 ± 1.6 g/dL, 1.9 ± 0.5 mmol/L, 2.3 ± 0.2 mmol/L and 202.5 ± 323.4 ng/mL. Dialysis adequacy for HD and PD were 65.1 (urea reduction ratio) and 2.0 ± 0.3 (Kt/v). 71 % of all prevalent HD had functioning AV fistulae and the peritonitis incidence was one in 24.5 patient-month/episode. The first BDTR has identified some deficiencies in the renal services in Brunei. However, it signals an important milestone for the establishment of benchmarked renal practice in the country. We hoped to maintain and improve our registry for years to come and will strive to align our standards to acceptable international practice.

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A rare case of *Aeromonas Hydrophila* catheter related sepsis in a patient with chronic kidney disease receiving steroids and dialysis: A case report and review of *Aeromonas* infections in chronic kidney disease patients

Khalil M, Rehman A, Kashif W, Manickam R, Tan J.
Clinical Case Reports in Nephrology. 2013, article id 735194, 2013. Doi:10.1155/2013/735194

ABSTARCT

Aeromonas hydrophila (AH) is an aquatic bacte-

rium. We present a case of fifty-five-year-old gentleman with chronic kidney disease (CKD) due to crescentic IgA nephropathy who presented to us with fever. He was recently pulsed with methyl prednisolone followed by oral prednisolone and discharged on maintenance dialysis through a double lumen dialysis catheter. Blood culture from peripheral vein and double lumen dialysis catheter grew AH. We speculate low immunity due to steroids and uremia along with touch contamination of dialysis catheter by the patient or dialysis nurse could have led to this rare infection. Dialysis catheter related infection by AH is rare. We present our case here and take the opportunity to give a brief review of AH infections in CKD patients.

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Note: Collaboration with Department of Renal Medicine, Rimba Dialysis Centre, Gadong, Bandar Seri Begawan, Brunei Darussalam.

Article is freely available from the journal website at <http://www.hindawi.com/crim/nephrology/2013/735194/>

Progressive tumoural calcinosis despite medical and surgical therapy

Manickam R, Alam S, Maboud K, Tan J.
J Nephrol Urol Research 2013;1:21-4.

ABSTARCT

Tumoural calcinosis is an unusual metabolic complication that is uncommonly seen in chronic dialysis patients with deranged calcium and phosphate metabolism. We report a case that was resistant to medical and surgical treatment, which eventually led to septicaemic shock and death. This case highlighted to importance of routine surveillance with radiographic and physical examination of musculoskeletal system in high-risked susceptible dialysis patients, even in the absence of warning signs and symptoms.

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The impact of caring for children with mental retardation on families as perceived by mothers in Karachi, Pakistan.

Lakhani A, Gavino I, Yousafzai A.
J Pak Med Assoc. 2013 Dec;63(12):1468-71.

ABSTARCT

OBJECTIVE: To assess how families perceive the positive and negative impacts of caring for a child with mental retardation.

METHODS: The quantitative descriptive study was conducted from January to August 2007 and comprised 54 families attending a private day-care centre for children with special needs in Karachi, Pakistan. The Kansas Inventory of Parental Perceptions was used to assess mothers' perceptions on the impact of caring for a child with mental retardation. Positive contributions, social comparisons with others, understanding of disability and perception of control were assessed. SPSS 16 was used for statistical analysis.

RESULTS: Mothers reported positive contribution to family life as a result of caring for a child with mental retardation (Mean: 2.95 +/- 0.37). There was an acceptance of the situation and a trend towards upward favourable comparison with other families (Mean: 3.13 +/- 0.07).

CONCLUSIONS: Contrary to earlier studies exploring the impact of caring for a child with disabilities having largely focused on negative contributions, the study highlights some positive contributions.

Note: Collaboration between School of Nursing, Aga Khan University, Karachi, Pakistan, University of Brunei, Darussalam and Department of Paediatrics and Child Health, Division of Women and Child Health, Aga Khan University, Karachi, Pakistan.

Adopting customers' empowerment and social networks to encourage participations in e-health services.

Anshari M, Almunawar MN, Low PK, Wint Z, Younis MZ.
J Health Care Finance. 2013 Winter;40(2):17-41.

ABSTARCT

The aim of this article is to present an e-health model that embeds empowerment and social network intervention that may extend the role of customers in health care settings. A 25-item Likert-type survey instrument was specifically developed for this study and administered to a sample of 108 participants in Indonesia from October to November 2012. The data were analyzed to provide ideas

on how to move forward with the e-health initiative as a means to improve e-health services. The survey revealed that there is a high demand for customers' empowerment and involvement in social networks to improve their health literacy and customer satisfaction. Regardless of the limitations of the study, the participants have responded with great support for the abilities of the prototype systems drawn from the survey. The survey results were used as requirements to develop a system prototype that incorporates the expectations of the people. The prototype (namely Clinic 2.0) was derived from the model and confirmed from the survey. Participants were selected to use the system

for three months, after which we measured its impact towards their health literacy and customer satisfaction. The results show that the system intervention through Clinic 2.0 leads to a high level of customer satisfaction and health literacy.

Note: Collaboration between Faculty of Business Economics and Policy Studies, Universiti Brunei Darussalam, Faculty of Business Economics and Policy Studies, Universiti of Brunei Darussalam, Brunei Darussalam, University of South Australia, PAPRSB Institute of Health, Universiti of Brunei Darussalam, Brunei Darussalam and Department of Health Policy & Management, Jackson State University, Jackson, Mississippi, USA.