

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 August 2013 to 14th October 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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