

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 centers that have been published in regional or international journals. This also includes works published as part of collaboration with centers outside of Brunei Darussalam. These works include review articles, original articles and case reports published between 16th June to 15th August 2011. (Some publications have been published or indexed at a later date than publication).

TEC-family kinases in health and disease: Loss-of-function of BTK and ITK and the gain-of-function fusions ITK-SYK and BTK-SYK.

Hussain A, Yu L, Faryal R, Mohammad DK, Mohamed AJ, Edvard Smith CI.

FEBS J. 2011 Apr 23. doi: 10.1111/j.1742-4658.2011.08134.x.

The TEC-family constitutes an ancient and the second largest family of cytoplasmic tyrosine kinases. In 1993 loss-of-function mutations in the BTK gene were reported as the cause of X-linked agammaglobulinemia (XLA). Out of all the existing 90 tyrosine kinases in humans, BTK is the kinase where most mutations have been identified. These experiments of nature collectively provide a form of mutation scanning with direct implications for those several hundred endogenous signaling proteins carrying domains also found in BTK. In 2009 an inactivating mutation in the ITK gene was shown to cause susceptibility to lethal Epstein-Barr virus infection (EBV). Both kinases represent interesting targets for inhibition; in the case of BTK as an immunosuppressant, while there is evidence that inhibition of ITK could influence the infectivity of HIV and also have anti-inflammatory activity. Since 2006 several patients carrying a fusion protein, originating from a translocation joining genes encoding the kinases ITK and SYK, were found to develop T-cell lymphoma. We review these disease processes and also describe the role of the N-terminal PH-TH domain doublet of BTK and ITK in the downstream intracellular signaling of such fusion proteins.

Correspondence: Benjamin MA. Department of Obstetrics and Gynecology, RIPAS Hospital, Bandar Seri Begawan, Brunei. mridulaben@yahoo.com.

Article is available free from <http://www.jmedicalcasereports.com/content/4/1/136> (Journal website).

Basilar artery stenosis.

Bickle IC, Warren DJ, Genever A. Abdominal Imaging. Case 8492. 10.1594/EURORAD/CASE.8492

This 35-year-old lady attended A & E complaining of headache and brief loss of consciousness. After an unremarkable clinical assessment she was discharged home. Three hours later she returned with similar symptoms and whilst awaiting review her GSC dropped to 7/15. Intubation was required.

Prompt CT imaging of the head was performed.

Correspondence: Ian Bickle, Department of Radiology, and Department of Medicine, RIPAS Hospital, Brunei Darussalam. Article available from EURORAD website at <http://www.eurorad.org/case.php?id=8492>

Exophytic gastric adenocarcinoma.

Bickle I, Chong VH, Alludin BPM. Abdominal Imaging. Case 9300. 10.1594/EURORAD/CASE.9300

This 79-year-old lady presented with a four week history of upper abdominal pain, anorexia, vomiting and mild weight loss. She denied any previous history of abdominal problems or melena. Her only relevant past medical history was of hypertension and dyslipidemia. Examination revealed a non-tender epigastric mass.

Correspondence: Ian Bickle, Department of Radiology, and Department of Medicine, RIPAS Hospital, Brunei Darussalam. Article available from EURORAD website at <http://www.eurorad.org/case.php?id=9300>

Analysis of APC allelic imbalance/ loss of heterozygosity and APC protein expression in cutaneous squamous cell carcinomas.

Gray SE, Kay EW, Leader M, Mabruk M.

Cancer Genomics Proteomics. 2011 May-Jun;8 (3):149-55.

BACKGROUND: The adenomatous polyposis coli (APC) gene is a tumor suppressor gene which is mutated in the hereditary disease, familial adenomatous polyposis (FAP). Somatic mutations of the APC gene have also been identified in the majority of sporadic colorectal carcinomas, and mutation of the APC gene appears to be an early step in the initiation of colon cancer. Loss of heterozygosity (LOH) of APC has been described in a variety of other cancer types, including renal cell carcinoma, gastric cancer, non-small cell lung cancer, endometrial cancer and oral squamous cell carcinomas (SCC). Aim: To determine the role played by APC gene in the genesis of cutaneous SCC. **MATERIALS AND METHODS:** Allelic imbalance/loss of heterozygosity (AI/LOH) was examined in twenty-two histologically confirmed cutaneous squamous cell carcinomas (SCC) using microsatellite markers, proximal to the APC gene. Immunohistochemical analysis of APC protein expression was also examined in the cutaneous SCC. **RESULTS:** AI/LOH was detected in 60% of the SCC samples using D5S346 marker (proximal to the APC gene). Ninety-five percent of the SCC samples showed positive reduced APC expression, however the localization of the APC protein was abnormal. **CONCLUSION:** The abnormal expression of APC suggests that APC gene may play a role in cutaneous SCC development.

Correspondence: Professor M Mabruk, PAPRSB Institute of Health Sciences, University of Brunei Darussalam Jalan Tungku Link, Gadong BE1410 Bandar Seri Begawan, Brunei Darussalam. Email to mabruk@ubd.edu.bn / mmabruk03@yahoo.co.uk.

Comparison of RIPASA and Alvarado scores for the diagnosis of acute appendicitis

Chong CF, Thien A, Mackie AJA, Tin AS, Tripathi S, Ahmad MA, Tan LT, Ang SH, Telisinghe PU. Singapore Med J 2011;52(5):340-5.

Introduction: The accuracy of the Alvarado score in diagnosing acute appendicitis in an Asian population has been disappointingly low. We prospectively compared the RIPASA score with the Alvarado score for the diagnosis of acute appendicitis. **Methods:** 200 consecutive patients who presented to the Accident and Emergency Department with right iliac fossa pain were recruited in the study. Both the RIPASA and Alvarado scores were derived, but decisions for appendicectomy were based on clinical

judgement. Receiver operating curve (ROC), sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) for both scoring systems were calculated. **Results:** Only 192 out of the 200 patients who satisfied the inclusion and exclusion criteria were included in the analysis. At the optimal cut-off threshold score of 7.5 derived from the ROC, the sensitivity, specificity, PPV, NPV and diagnostic accuracy of the RIPASA score were 98.0 percent, 81.3 percent, 85.3 percent, 97.4 percent and 91.8 percent, respectively. At the cut-off threshold score of 7.0 for the Alvarado score, the sensitivity, specificity, PPV, NPV and diagnostic accuracy were 68.3 percent, 87.9 percent, 86.3 percent, 71.4 percent and 86.5 percent, respectively. The RIPASA score correctly classified 98 percent of all patients confirmed with histological acute appendicitis to the high-probability group (RIPASA score greater than 7.5) compared with 68.3 percent with the Alvarado score (Alvarado score greater than 7.0; p-value less than 0.0001). **Conclusion:** The RIPASA score at a cut-off threshold total score of 7.5 is a better diagnostic scoring system than the Alvarado score for the diagnosis of acute appendicitis in our local setting.

Correspondence: Chong CF. Department of General Surgery, Raja Isteri Pengiran Anak Saleha Hospital, Bandar Seri Begawan, BA 1710, Brunei Darussalam. Email: chong_chee_fui@hotmail.com. Article available free from <http://smi.sma.org.sg/5205/5205a2.pdf> (Journal website)

Melioidosis of the extremities in Brunei Darussalam

Pande KC, Hj Abdul Kadir KA. Singapore Med J 2011;52(5):346-50.

Introduction: Melioidosis caused by *Burkholderia pseudomallei* is an infectious disease endemic to Southeast Asia and northern Australia. It has a broad spectrum of clinical manifestations and high mortality, and can mimic other infectious diseases. The aim of this study was to review cases of melioidosis of the extremities in Brunei Darussalam. **Methods:** Culture-positive cases for *Burkholderia pseudomallei* in Raja Isteri Pengiran Anak Saleha Hospital were identified from records in the Microbiology Department. The case notes were reviewed to identify patients who were treated for problems affecting the extremities. 14 (13 males and one female) out of 48 patients were identified. **Results:** The median age of the patients was 45 (range 14–55) years. Septicaemia was the most common presenting feature in 11 patients. Multisystem involve-

ment was noted in eight patients, diabetes mellitus in nine patients and other risk factors in two patients. Blood culture was positive in ten patients and pus culture in 11 patients. The presentations noted were cellulitis of the limbs, abscess, osteomyelitis (three patients each) and septic arthritis (five patients). Orthopaedic intervention (joint washout/incision and drainage/curettage) was required in 11 patients. The median hospital stay was 27.5 (range 13–63) days; two patients required admission to intensive care. No mortality was reported. **Conclusion:** Melioidosis of the extremities is not uncommon in Brunei Darussalam. It is associated with significant morbidity, and a large number of patients require surgical intervention. Thus, a high index of suspicion is required for early diagnosis and institution of appropriate antibiotic therapy.

Correspondence: Pande KC. Department of Orthopaedics, Raja Isteri Pengiran Anak Saleha Hospital, Bandar Seri Begawan, BA 1710, Brunei Darussalam. E mail: ketanpande@yahoo.com.

Article available free from <http://smj.sma.org.sg/5205/5205a3.pdf> (Journal website)

Physician home visit by palliative medical fellow.

Ang SK, Legrand SB, Walsh D, Davis MP, Lagman RL. Am J Hosp Palliat Care. 2011 Jun 10. [Epub ahead of print]

BACKGROUND: Physician home visits (HVs) are an important model of care for the terminally ill. Hospice and palliative medicine (HPM) fellows make a minimum of 25 HVs. **OBJECTIVE:** To describe HPM fellow hospice HVs in an academic palliative medicine practice. **METHODS:** Retrospective chart review of HVs conducted by 1 HPM fellow. **RESULTS:** Twenty-five HVs were made to 21 hospice patients. Nineteen had advanced cancer. Indications for visits were symptom management (22) and education (21). On average 2.8 symptoms (\pm SD 1) were addressed on each visit, usually pain. Medications were reviewed at every visit. **CONCLUSIONS:** HVs are an important part for patient care and fellow education, which provided an opportunity for medication revision and symptom education.

Correspondence: Ang SK. Department of Internal Medicine, RIPAS Hospital, Bandar Seri Begawan, Brunei. E mail: Sikim2000@gmail.com

Performance and cross-cultural comparison of the short-form version of the CPQ11-14 in

New Zealand, Brunei and Brazil.

Foster Page LA, Thomson WM, Mohamed AR, Traebert J. Health Qual Life Outcomes. 2011 Jun 7;9 (1):40. [Epub ahead of print]

BACKGROUND: The Child Perception Questionnaire (CPQ11-14) is a self-report instrument developed to measure oral-health-related quality of life (OHRQoL) in 11-14-year-olds. Earlier reports confirm that the 16-item short-form version performs adequately, but there is a need to determine the measure's validity and properties in larger and more diverse samples and settings. Aim: The objective of this study was to examine the performance of the 16-item short-form impact version of the CPQ11-14 in different communities and cultures with diverse caries experience. **METHOD:** Cross-sectional epidemiological surveys of child oral health were conducted in two regions of New Zealand, one region in Brunei, and one in Brazil. Children were examined for dental caries (following WHO guidelines), and OHRQoL was measured using the 16-item short-form item-impact version of the CPQ11-14, along with two global questions on OHRQoL. Children in the 20% with the greatest caries experience (DMF score) were categorised as the highest caries quintile. Construct validity was evaluated by comparing the mean scale scores across the categories of caries experience; correlational construct validity was assessed by comparing mean scores and children's global ratings of oral health and well-being. **RESULTS:** There were substantial variations in caries experience among the different communities (from 1.8 in Otago to 4.9 in Northland) and in mean CPQ11-14 scores (from 11.5 in Northland to 16.8 in Brunei). In all samples, those in the most severe caries experience quintile had higher mean CPQ11-14 scores than those who were caries-free ($P < 0.05$). There were also greater CPQ scores in those with worse self-rated oral health, with the Otago sample presenting the most marked gradient across the response categories for self-rated oral health, from 'Excellent' to 'Fair/Poor' (9.6 to 19.7 respectively). **CONCLUSION:** The findings suggest that the 16-item short-form item impact version of the CPQ11-14 performs well across diverse cultures and levels of caries experience. Reasons for the differences in mean CPQ scores among the communities are unclear and may reflect subtle socio-cultural differences in subjective oral health among these populations, but elucidating these requires further exploration of the face and content validity of the measure in different populations. Key Words: Adolescents, caries experience, quality of life, validity, short-form CPQ11-14.

Complete Dislocation of the Lens of the Eye - Always review the complete study.

Bickle I. Philipp J Otolaryngol Head Neck Surg 2011; 26(1):49-50. ICID: 945452

This 37 year-old male patient underwent high resolution CT imaging of the face including the paranasal sinuses following trauma.

Correspondence: Ian Bickle, Department of Radiology, and Department of Medicine, RIPAS Hospital, Brunei Darussalam. Article available from <http://pso-hns.org/psojournals/pjohns/2011a/07-from-the-viewbox.pdf>

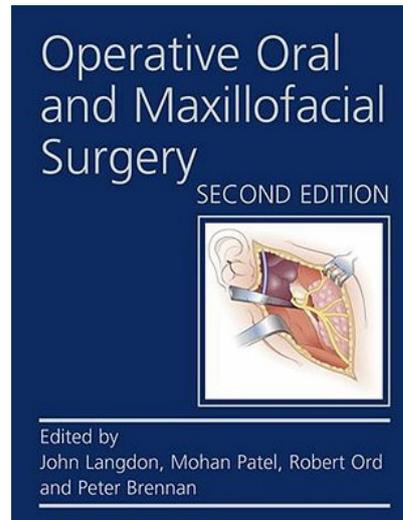
Alveolar rhabdomyosarcoma

Bickle IC. Paediatric Radiology. Case 9384. 10.1594/EURORAD/CASE.9384

This 8-year-old girl presented to paediatric outpatient clinic after her mother noticed a mass within the central abdomen. There were no further symptoms. Clinical examination confirmed the presence of a painless firm mass extending from the pelvis to above the umbilicus. Alpha fetoprotein and HCG were normal.

Correspondence: Ian Bickle, Department of Radiology, and Department of Medicine, RIPAS Hospital, Brunei Darussalam. Article available from EURORAD website at <http://www.eurorad.org/case.php?id=9384>

BOOK CHAPTERS



Operative Oral and Maxillofacial Surgery. Ed. Langdon J, Patel M, Ord R and Brennan P. Arnold Fodder publishing. 2010.

PART ELEVEN: FACIAL AESTHETIC SURGERY

11.1 Nonsurgical techniques: botox, fillers.

N Ravindranathan

11.2 Hair transplantation

N Ravindranathan and E Antonio Mangubat

11.6 Rhinoplasty and septoplasty: Closed and open techniques and the Oriental nose.

Luc Cesteley, N Ravindranathan and Corazon Collantes Jose