

*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 15<sup>th</sup> December 2012 to 14<sup>th</sup> April 2013. (Some publications have been published or indexed at a later date than publication).*

### **Clinical significance of heterotopic gastric mucosal patch of the proximal esophagus.**

Chong VH.

World J Gastroenterol. 2013 Jan 21;19(3):331-338.

#### **ABSTARCT**

Heterotopic gastric mucosa of the proximal esophagus (HGMPE), also referred to as "inlet patch" or "cervical inlet patch", is a salmon colored patch that is usually located just distal to the upper esophageal sphincter. HGMPE is uncommon with endoscopic studies reporting a prevalence ranging from less than one percent to 18%. Most HGMPE are asymptomatic and are detected incidentally during endoscopy for evaluations of other gastrointestinal complaints. Most consider HGMPE as clinically irrelevant entity. The clinical significance of HGMPE is mainly acid related or neoplastic transformation. The reported prevalence of laryngopharyngeal reflux symptoms varies from less than 20% to as high as 73.1%. However, most of these symptoms are mild. Clinically significant acid related complications such as bleeding, ulcerations, stricture and fistulization have been reported. Although rare, dysplastic changes and malignancies in association with HGMPE have also been reported. Associations with Barrett's esophagus have also been reported but the findings so far have been conflicting. There are still many areas that are unknown or not well understood and these include the natural history of HGMPE, risk factors for complications, role of *Helicobacter pylori* infection and factors associated with malignant transformations. Follow-up may need to be considered for patients with complications of HGMPE and surveillance if biopsies show intestinal metaplasia or dysplastic changes. Despite the overall low incidence of clinically relevant manifestations reported in the literature, HGMPE is a clinically significant entity but further researches are required to better understand its

clinical significance.

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### **Prevalence of gastrointestinal and psychosomatic symptoms among Asian patients undergoing regular hemodialysis.**

Chong VH, Tan J.

Nephrology (Carlton). 2013 Feb;18(2):97-103. doi: 10.1111/nep.12000.

#### **ABSTARCT**

**AIM:** Gastrointestinal (GI) symptoms are reported to be common among patients with chronic disorders including end-stage renal disease (ESRD). This questionnaire study assessed the prevalence of GI symptoms among patients undergoing hemodialysis (HD) and to correlate with the presence of diabetes mellitus and psychosomatic symptoms in Asian patients with ESRD.

**METHODS:** A total of 123 patients (male 47.2%) participated in this study. GI symptoms (upper GI: anorexia, nausea, vomiting, odynophagia, dysphagia, early satiety, heartburn, dyspepsia and lower GI: abdominal bloating, non-epigastrium abdominal pain, bowel habit and bleeding per rectum) and psychosomatic symptoms (anxiety, backache, depression, headache and insomnia) in the previous 12 months were enquired and compared with age and gender matched controls (n = 197).

**RESULTS:** The mean age of patients was 51.8 ± 12.9 years with mean duration of HD of 28 ± 38.2 months. Overall, 70.7% of ESRD patients had experienced any GI symptoms; upper GI, 65% and lower GI, 34.1%, significantly more than controls (P < 0.05). ESRD patients had more anorexia, nausea, vomiting, dyspepsia, irregular bowel habit and

bleeding per rectum (all  $P < 0.05$ ). Overlap of upper and lower GI symptoms was reported by 34.1%, significantly higher than control (14.2%,  $P < 0.05$ ). ESRD patients also experienced significantly more anxiety, depressive symptoms and insomnia (all  $P < 0.05$ ). Among the patients with ESRD, the presence of any psychosomatic symptoms correlated significantly with the presence of any upper or lower GI symptoms and overlapping of GI symptoms. Such correlations were not seen with diabetes mellitus.

**CONCLUSION:** Gastrointestinal and psychosomatic symptoms are common among our Asian patients with ESRD undergoing regular HD. The presence of underlying psychosomatic symptoms but not diabetes mellitus correlated significantly with the presence of GI symptoms.

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### **A CT-based classification of prior ACL femoral tunnel location for planning revision ACL surgery.**

Magnussen RA, Debieux P, Benjamin B, Lustig S, Demeo G, Servien E, Neyret P. *Knee Surg Sports Traumatol Arthrosc.* 2012 Jul;20(7):1298-306. doi: 10.1007/s00167-011-1814-4. Epub 2011 Dec 8.

#### **ABSTARCT**

**PURPOSE:** The purposes of this study are to describe an ACL femoral tunnel classification system for use in planning revision ACL reconstruction based on 3-D computed tomography (CT) reconstructions and to evaluate its inter- and intra-rater reliability.

**METHODS:** A femoral tunnel classification system was developed based on the location of the femoral tunnel relative to the lateral intercondylar ridge. The femoral tunnel was classified as Type I if it was located entirely below and posterior to the ridge as viewed from distally, Type II if it was slightly malpositioned (either vertically, anteriorly, or both), and Type III if it was significantly malpositioned. To evaluate the reproducibility of the classification system, CT scans of 27 knees were obtained from patients scheduled for revision ACL reconstruction, and 3-D reconstructions were created. Four views of the 3-D reconstruction of each femur were then obtained, and inter- and intra-observer reliability was determined following classification of the tunnels by eight observers.

**RESULTS:** Twenty-five tunnels were classified as Type I (5 tunnels), Type II (9 tunnels), or type III (11 tunnels) by at least 5 of 8 observers, while insufficient agreement was noted to classify two tunnels. The interobserver reliability of tunnel classification as type I, II, or III yielded a  $\kappa$  coefficient of 0.57, while intra-observer reliability yielded a  $\kappa$  coefficient of 0.67. Subclassification of type II femoral tunnels into the subgroups anterior, vertical, and both was possible in four of the nine type II patients. The interobserver reliability of the complete classification system yielded a  $\kappa$  coefficient of 0.50, while the intra-observer reliability yielded a  $\kappa$  coefficient of 0.54.

**CONCLUSION:** Classification of the location of ACL femoral tunnels utilizing 3-D reconstructions of CT data yields moderate to substantial inter- and intra-observer reliability.

**LEVEL OF EVIDENCE:** Diagnostic Level III.

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Collaboration work with oversea centre.

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### **An investigation into UV light exposure as an experimental model for artificial aging on tensile strength and force delivery of elastomeric chain.**

Wahab SW, Bister D, Sherriff M. *Eur J Orthod.* 2013 Feb 8. [Epub ahead of print]

#### **ABSTARCT**

This study investigated the effect of ultraviolet type A light (UVA) exposure on the tensile properties of elastomeric chain. UVA light exposure was used as model for artificial aging, simulating prolonged storage of elastomeric chain. Tensile strength ( $n = 60$ ) was measured after exposing Ormco, Forestadent and 3M chains to UVA light for 0, 2, 3, and 4 weeks. Force decay was measured ( $n=60$ ) using chain exposed for 5, 10, and 14 days. The chains were subsequently stretched at a constant distance and the resulting forces measured at 0, 1, 24 hours and 7, 14, 21, and 28 days. This test simulated a clinical scenario of pre-stretching and subsequent

shortening of elastomeric chain. Tensile strength had statistically significant difference and was directly related to the duration of ultraviolet (UV) light exposure. Forestadent chain, which had the second highest value for the 'as received' product, showed the most consistent values over time with the lowest degradation. Ormco showed the lowest values for 'as received' as well as after UV exposure; 3M chain had the highest loss of tensile strength. Force decay was also significantly different. UV light exposure of 10 days or more appears to mark a 'watershed' between products: 3M had most survivors, Forestadent chain had some survivors, depending on the time the chain was stretched for. None of the Ormco product survived UV light exposure for more than 5 days. UVA light exposure may be used as a model for artificial aging as it reduces force delivery and tensile strength of exposed chains.

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Wahad SW: Orthodontic Unit, National Dental Centre, Brunei.

### Peripheral markers of alzheimer's disease: Surveillance of white blood cells.

Kaneez FS, Aghazadeh Y, Ahmad S, Kress B. Synapse. 2013 Feb 13. doi: 10.1002/syn.21651. [Epub ahead of print]

No abstract available

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### Dental workforce development as part of the oral health agenda for Brunei Darussalam.

Wilson NH, Shamshir ZA, Moris S, Slater M, Kok EC, Dunne SM, Said SH, Lee JM, Gallagher JE. Int Dent J. 2013 Feb;63(1):49-55. doi: 10.1111/idj.12005. Epub 2013 Jan 24.

#### ABSTRACT

**BACKGROUND:** Brunei Darussalam is a Sultanate with a Malay Islamic monarchy. There are high levels of dental disease among its 406,200 population. The population's oral health needs require an

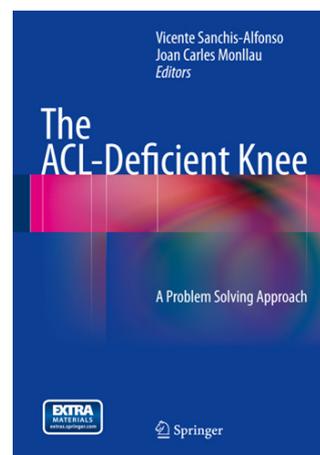
integrated blend of primary and specialist care, together with oral health promotion.

**PROCESS AND OUTCOMES:** This paper describes the planning and measures taken to address these needs. In accordance with an oral health agenda published and launched in 2008, focusing on access, health promotion and prevention, and the education and training of the dental workforce, the Brunei Darussalam Ministry of Health is seeking to improve oral health status and reduce the burden of oral disease. It also seeks to transform the country's oral health services into a preventatively orientated, high-quality, seamless service underpinned by the concept of 'teeth for life'. In the process of effecting this transition, the Brunei Darussalam Ministry of Health is developing a dental workforce fit for future purpose, with an emphasis on a modern approach to skill mix. An important element of this programme has been the development of a highly successful Brunei Darussalam Diploma in Dental Therapy and Dental Hygiene.

**CONCLUSION:** It is concluded that the Brunei Darussalam oral health agenda and, in particular, the forward-looking programme of dental workforce development is a model for other countries facing similar oral health challenges.

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Collaboration work with Brunei Dental Centre.



#### BOOK CHAPTER

**The ACL-Deficient Knee**

**Editors: Vicente Sanchis-Alfonso and Jaon Carles Monllau**

**Chapter 13. Indications for Ancillary Surgery in the ACL-Deficient Knee**

Biju Benjamin M.D., Robert A. Magnussen M.D., Philippe Neyret M.D.

## **ABSTARCT**

Modern ACL reconstruction frequently provides a stable knee and allows a majority of athletes to return to sport. However, the incidences of failed surgery and progression of degenerative disease remain unacceptably high. Ancillary procedures including lateral extra-articular reconstruction, valgus-producing HTO, tibial deflexion osteotomy, and procedures related to meniscal preservation and restoration may provide routes for improving results. These procedures augment ACL reconstruction by decreasing stress on the intra-articular graft, improving stability by decreasing anterior tibial translation and/or the pivot shift, and decreasing stress on the articular cartilage by altering load transmission and/or decreasing shear stress due to abnormal joint kinematics. Further work, including development of new techniques and well-designed prospective studies evaluating results, is necessary to improve and verify the utility of these procedures.

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[http://link.springer.com/chapter/10.1007/978-1-4471-4270-6\\_13](http://link.springer.com/chapter/10.1007/978-1-4471-4270-6_13)

## **Current status on the diagnosis and evaluation of pancreatic tumour in Asia with particular emphasis on the role of endoscopic ultrasound.**

Kongkam P, Ang TL, Vu CK, Dy FT, Yasuda K, Rerknimitr R, Varadarajulu S, Dhir V, Chong VH, Jin ZD, Wong JY, Ho KY; the Asian Consortium of EUS. *J Gastroenterol Hepatol.* 2013 Mar 11. doi: 10.1111/jgh.12198. [Epub ahead of print]

## **ABSTRACT**

In Asia, the incidence of pancreatic cancer in some countries has been increasing. Owing to most cases being diagnosed late, prognosis for pancreatic cancer remains dismal. It is clear the future for pancreatic cancer is early detection. While the possible presence of pancreatic masses is often first raised by non-invasive abdominal imaging such as computerized tomography (CT) and magnetic resonance imaging (MRI), smaller lesions and locoregional lymph node metastases are often not detectable by these means. Endoscopic ultrasonography (EUS) offers a higher sensitivity (93-100%) for the detection of small potentially curable pancreatic masses than other existing imaging modalities.

It is also recommended to evaluate portal vein confluence, portal vein, celiac axis and SMA origin, and exclude respectability. Due to the closer proximity of EUS to the target structure, and lower rate of needle tract seeding, EUS-guided fine needle aspiration (FNA) of pancreatic mass is considered the most suitable tissue acquisition technique. Lastly, EUS also enables the performance of endoscopic interventions. Its performance can be further enhanced with newer techniques, including contrast enhanced ultrasound and elastography. It is anticipated that in the near future, molecular technologies may make it possible to detect microscopic amounts of cancer in tissue or blood, predict relapse and survival after therapy, as well as determine optimal therapy.

Chong VH: Collaboration work with other Endoscopy Centre (part of the Asian Consortium of EUS).

## **Factors Determining Diagnostic Yield of Endoscopic Ultrasound Guided Fine-Needle Aspiration for Pancreatic Cystic Lesions: A Multicentre Asian Study.**

Lim LG, Lakhtakia S, Ang TL, Vu CK, Dy F, Chong VH, Khor CJ, Lim WC, Doshi BK, Varadarajulu S, Yasuda K, Wong JY, Chan YH, Nga ME, Ho KY; The Asian EUS Consortium. *Dig Dis Sci.* 2013 Jan 13. [Epub ahead of print]

## **ABSTRACT**

**BACKGROUND AND AIM:** The purpose of this study was to determine (1) the diagnostic yield for endoscopic ultrasound-guided fine needle aspiration (EUS-FNA) in patients with pancreatic cystic lesions, (2) additional value of EUS-FNA over EUS alone in the diagnosis of pancreatic cysts, and (3) diagnostic sensitivity and specificity of EUS and EUS-FNA in the subset of patients where histopathology of surgical specimens were available.

**METHODS:** All patients who underwent EUS examination for the evaluation of pancreatic cystic lesions in six Asian centres were included in the study.

**RESULTS:** Of 298 patients with pancreatic cysts who underwent EUS, 132 (44.3 %) underwent FNA. In the entire cohort, pseudocysts and intraductal papillary mucinous neoplasm (IPMN) were the predominant cystic lesions. The cytologic yield of EUS-FNA was 47 %. On univariate analysis, factors associated with higher cytologic yield included

vascular involvement on EUS, presence of solid cystic component, and increased number of needle passes during EUS-FNA. On multivariate analysis, presence of solid cystic components and increased number of needle passes during EUS-FNA were associated with higher diagnostic yield of EUS-FNA. For pancreatic cysts with a solid component, the diagnostic yield of EUS-FNA increased significantly from 44 % with one pass to 78 % with more than one pass ( $p = 0.016$ ). In the absence of a solid component, the diagnostic yield was 29 % with one pass and was not significantly different from the diagnostic yield of 50 % with more than one pass,  $p = 0.081$ .

**CONCLUSION:** The cytologic yield of EUS-FNA was 47 %. When a solid component was present in the cyst, doing more than one pass during EUS-FNA increased its diagnostic yield.

Chong VH: Collaboration work with other Endoscopy Centre (part of the Asian Consortium of EUS).

### **Effects of Selective Serotonin Reuptake Inhibitors (SSRIs) Therapy on the Female Sexual Response Cycle of women with Major Depression.**

Hatta S, Duni A, Ng CG, Lin N, Marhani M, Das S, Nik Ruzyanei NJ. *Clin Ter.* 2013 Jan;164(1):11-5. doi: 10.7417/T.2013.1503.

#### **ABSTRACT**

**Objective.** Depression and its treatment may influence all aspects of the female sexual function from desire to sexual satisfaction. This study aimed to examine the components of the female sexual response cycle (SRC) of women with major depression treated with Selective Serotonin Reuptake Inhibitors. **Materials and Methods.** The correlations structure of the items of the SRC's phases (i.e. desire, arousal, orgasm, satisfaction and pain) in a validated Malay version of Female Sexual Function Index (FSFI) was determined using principal component analysis (PCA), with varimax rotation method. The number of factors obtained was decided using Kaiser's criteria. Factor loadings using PCA with varimax rotation divided the sexual domains into three components based on Kaiser's criteria. **Results.** Sexual desire, sexual arousal, lubrication and orgasm were highly correlated, to form a "sexual drive" construct. Sexual satisfaction and pain made up the second and third components,

respectively. SSRIs may affect the components of the SRC causing highly overlapping constructs of sexual drive including orgasm. Recognizing this helps strategizing the treatment approach of female sexual dysfunction in depression particularly in relation to the role of SSRIs.

Lin Naing: Collaboration work between Universiti Brunei Darussalam and other centres in Malaysia.

### **Quinolines as Chemotherapeutic Agents for Leishmaniasis.**

Reynolds KA, Loughlin WA, Young DJ. *Mini Rev Med Chem.* 2013 Mar 6. [Epub ahead of print]

#### **ABSTRACT**

The development of leishmanicidal quinolines and their in vitro (promastigote and amastigote) and, where applicable, in vivo activities are reviewed. This survey provides a direct comparison of bioactivity across different species (e.g. *L. donovani*, *L. amazonensis*, *L. chagasi*, *L. infantum*), and in different animal models (e.g. *L. donovani* Balb/c mice and *L. donovani* infected hamsters). The progress of selected quinolines through pre-clinical development and phase I/II trials, and the lead quinoline drugs sitamaquinine and Imiquimod, are discussed in conjunction with delivery systems and combination therapies.

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### **Co-incident Plasmodium knowlesi and Mucormycosis infections presenting with acute kidney injury and lower gastrointestinal bleeding.**

Ramaswami A, Pisharam JK, Aung H, Kafeel G, Maboud K, Chong VH, Tan J. *Am J Case Rep* 2013; 14:CR103-105 DOI: 10.12659/AJCR.883879

#### **ABSTRACT**

**Background:** *Plasmodium knowlesi* is frequently reported in Southeast Asian countries and is now widely regarded as the fifth malarial parasite. Mucormycosis is a rare fungal infection that can occur in patients with a weakened immune system. **Case Report:** We report a case of acute kidney injury secondary to *Plasmodium knowlesi* malaria infection and mucormycosis fungal infection. In

addition, the patient also had lower gastrointestinal bleeding from invasive gastrointestinal mucormycosis. *P. knowlesi* infection was diagnosed by blood film and mucormycosis was diagnosed by histopathological examination of biopsy specimen of the colon. The patient recovered with antimalarial treatment (Quinine), antifungal treatment (Lipophilic Amphotericin), and supportive hemodialysis treatment.

Conclusions: We hypothesize that *P. knowlesi* ma-

larial infection can lower the immunologic threshold and predisposes vulnerable individuals to rare disseminated fungal infections. To the best of our knowledge, this is the first *P. Knowlesi* malaria-associated invasive fungal infection reported in the literature.

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