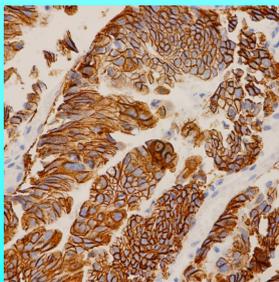
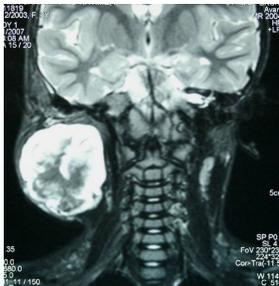


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Free papers presented in the 4th Annual Brunei Surgical Scientific Session/ 7th Surgical Forum 2010 are published as Supplement.

Lipoblastoma

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TELISINGHE **

* Department of Surgery and ** Department of Pathology, RIPAS Hospital, Bandar Seri Begawan BA 1710, Brunei Darussalam

Introduction: Lipoblastoma is a rare, benign, encapsulated tumour arising from embryonic white fat typically containing variably differentiated adipocytes, primitive mesenchymal cells, myxoid matrix and fibrous trabeculae on histology. The tumour occurs primarily in infancy and early childhood, and often occurs in the extremities and trunk, and rarely in the head and neck and other sites.

Materials and Methods: Ten cases of lipoblastoma seen in our hospital over a six years period (2003 to 2008) were reviewed retrospectively for their clinical presentations, treatment, postoperative outcomes and follow-up.

Results: There were five males and five females ranging in age from six months to 20 years. The most common presentation was a painless rapidly growing mass. Tumours occurred in an extremity (n = 5), head and neck (n = 3), trunk (n = 1) and retroperitoneum (n = 1). Preoperative diagnosis was accurate in only one case. All patients underwent complete surgical excision. Patient follow-up period ranged from nine to 76 months, showed no recurrences and no metastases.

Conclusions: Lipoblastoma behaves benignly, occurs in both superficial and deep sites, and occasionally attains large size. Complete surgical excision is the treatment of choice and long-term follow-up is required as there is a reported tendency for these tumours to recur.

Endopouch– a novel use as silo in exomphalus repair

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Introduction: Management of exomphalus major can be challenging as primary repair of defect may not be possible due to lack of space for the herniated organs and viscera to return to the abdominal cavity. Initial management with traction under gravity for the organs and viscera to return to the abdominal cavity is indicated. In some cases, a

prolonged period is maintained as long as the covering sac is still intact and not infected. To keep the exomphalus content upright and under traction can be difficult, as it tends to tip over.

Materials and Methods: To report an innovative techniques of using commercial endopouch to keep exomphalus upright and to reduce it under gravity and daily tightening.

Results and conclusion: The use of endopouch proved to be feasible in our reported case. There is currently no available silo in conservative management situation as described. Most silo is used in operated case in which the abdominal wall defect can not be closed primarily at laparotomy.

Haematuria clinic– an analysis of 113 patients presenting with haematuria at the Urology Unit, RIPAS Hospital, Brunei Darussalam

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Introduction: To analyse the results of investigations of patients who presented with haematuria from the Brunei perspective.

Materials and Methods: A retrospective study of 113 patients was carried out. All case notes were retrieved and data analysed based on symptoms, type of haematuria and results of investigations.

Results: 113 cases were analysed with 76 males and 37 females patients, mean age 45 (range 18 to 90). Out of 77 cases of non-visible haematuria (10 to 250 RBCs), 51/77 were asymptomatic and 26/77 were symptomatic. 9/51 asymptomatic patients were lost to follow-up. 20/26 in symptomatic patients non-visible haematuric patients were found to have abnormalities. 36 patients had visible haematuria (>250 RBCs), 14/36 were painless and 22/36 were associated with pain and LUTs. 1/36 was found to have prostate cancer, 3/36 had bladder transitional cell carcinoma (TCC), 3/36 had urolithiasis, 4/36 had urinary tract infection (UTI), 4/36 had cystitis and 1/36 had renal cyst.

Conclusion: The results showed that cancer detection rate (4/102) for haematuric patients was lower than that reported in the literature. The most common urological abnormalities were urolithiasis (15/102) and cystitis (7/102). From this experience

we would recommend computed tomography KUB with or without contrast to our patients in addition to the initial flexible cystoscopies and ultrasonography especially for patients presenting with symptomatic, non-visible haematuria as urolithiasis is more common than other urological abnormalities in Brunei Darussalam.

Use of RIPASA scoring system among doctors in RIPAS Hospital- a three months audit

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Introduction: The RIPASA score is a new appendicitis scoring system introduced locally in 2009 with the aim of providing a more sensitive and specific system for detecting acute appendicitis in an Asian population when compared to the Alvarado or Modified Alvarado scores. The aim of this study was to determine the uptake of RIPASA score amongst doctors in RIPAS Hospital and to evaluate if it's guidelines were being followed. Secondary objective is to establish who utilises the scoring system and reasons for not using it.

Materials and Methods: Retrospective study for a period of three month from September to November 2009 of patients admitted to the Department of General Surgery with right iliac fossa pain. Patients' records were retrieved and data were collected regarding the frequency of usage of RIPASA score, who completed the form and were appendectomy performed in accordance to RIPASA score guidelines.

Results: A total of 61 patients with a mean age of 23.7 (13.4) years were included. RIPASA score was used in 52% of all cases: 57.6% males, 45% females and 67% in paediatric patients. Uptake of RIPASA score among emergency physician was 38%, surgical house officers was 40% and surgical medical officers was 43%. 88% of cases categorised by RIPASA score as high probability (RIPASA score >7.5) of acute appendicitis went to theatre, with appendicitis confirmed in 81.8%. There was deviation from guidelines in 12% of cases, resulting in a pickup rate by clinical judgements alone of only 77%. All six paediatric patients with RIPASA score of more than 7.5 were confirmed by appendectomy and histology. Negative appendectomy

rate was 12%.

Conclusion: Two months after implementation of the RIPASA score in RIPAS Hospital, the uptake of the scoring system in cases referred from Accident and Emergency Department and in decision-making among junior doctors was low. Reasons were due to lack of knowledge about the newly developed scoring system, unavailability of the scoring sheets in some wards, more trust put into clinical judgements and inconvenience of use during busy nights. Measures to disseminate more information and making the scoring sheets available at all time on the wards should be implemented. A re-audit after six months when the scoring system is more familiar to surgical juniors and Emergency physicians may yield more positive results.

Gastrointestinal stromal tumour- a clinicopathological study

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Introduction: The gastrointestinal stromal tumours (GISTs) are the most common mesenchymal neoplasms of gastrointestinal (GI) tract and thought to arise from subset of interstitial cells of Cajal. Historically, GISTs were regarded as tumours of smooth muscle or neural origin (leiomyomas, leiomyoblastomas, leiomyosarcomas, neurofibromas and neurofibrosarcomas). C-KIT proto-oncogene is highly expressed and mutated in almost all (95%) GISTs (CD117 positive). Histologically, GISTs vary from cellular spindle, epithelioid or uncommonly pleomorphic tumours. The biologic behavior range from small incidentally detected benign to aggressive malignant tumours (20 to 30% of all GISTs and 0.1 to 3% of GI malignancies).

Material and Methods: GISTs reported by the Department of Pathology (1999 to 2009) were retrieved with the aid of the Laboratory Information Service (LIS) utilising the Systematised Nomenclature of Medicine (SNOMED) code for topography for GI tract and morphology for leiomyoma, epithelioid leiomyoma and leiomyosarcoma. Patients' case notes were obtained from the Department of Medical Records, RIPAS hospital.

Results: The total number of GI malignancies during the study period was 594 and GISTs accounted for 4.7% (n = 28). The breakdown locations con-

sisted of gastric (60.7%, n = 17), small intestinal (32.1%, n = 9) and one case each for the colon/rectum (3.6%) and omentum (3.6%). The ages ranged from 16 to 83 with majority occurring in fourth to seventh decades. Males and females were equally affected. Out of 28 cases, 20 were Malay (71.4%), four were Chinese (14.3%), three were Filipino (10.7%) and other races had one case (3.5%). The common presenting signs and symptoms were pain and or mass in abdomen (50%), upper GI bleeds (30%), dyspepsia/vomiting (10%), anaemia (5%) and incidental finding on imaging studies (5%). 18 cases were of spindle cell (64.4%), five were of epitheloid (17.8%) and remaining five was of mixed cellular (17.8%). Based on the tumour size and mitotic count, six cases were of low risk (20.6%), four cases were of intermediate risk (13.7%) and remaining 19 cases were of high risk (65.5%). 55% of cases were found to be positive for C-KIT (CD117), 72.7% for CD30, 66.6% for Smooth Muscle Actin (SMA), 31% for S100 protein, 95.5% for Vimentin and 24% for Desmin.

Conclusion: GI GIST accounted for 4.8% of all GI malignancies occurring equally in men and women. All were potentially malignant and around 65.5% of cases were categorised as high risk. Recognition and diagnosis of these tumours is important as surgery is the treatment of choice for resectable tumours.

Her-2 neu: a new role in gastric carcinoma

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Introduction: Her-2 neu Oncogene is known to be amplified in about 15-30% of invasive breast carcinomas and these patients respond to Her-2 targeted Trastuzumab (Herceptin) therapy. Studies have shown a similar role in gastric carcinomas. Trastuzumab therapy in Her-2 positive gastric carcinomas is now approved in many countries. This study was conducted to assess the Her-2 status in gastric carcinomas in Brunei Darussalam.

Materials and Methods: The study was performed on 29 cases diagnosed as adenocarcinoma stomach in RIPAS histopathology lab from 2008 to 2009. Histology was reviewed. Sections were

stained for immunohistochemical stain Her-2 (DAKO). Only 3+ score as described by DAKO was considered positive.

Results: Twenty nine cases studied were 22 to 98yrs of age (mean 65 years), 75% were males. According to location 65% were in antrum, 25% in the body and 10% in gastric cardia. Her-2 positivity (Score 3+) noted in five cases (17.4%). All cases were above 70 years of age, predominantly males (M: F: 4:1). Slightly greater incidence noted amongst Chinese. All five cases were of intestinal type of gastric adenocarcinoma

Conclusions: Her-2 neu over expression is seen in 17.5% of our gastric cancer patients. The pattern is similar to reports from other countries. Most of the cases of gastric carcinoma present with advanced disease and Trastuzumab therapy have a role in patients who are positive for Her-2. Hence Her-2 over expression must be tested in all cases of gastric carcinoma.

FNA findings in breast lumps secondary to cosmetic breast injections

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Introduction: Paraffinomas of breast result as a complication of cosmetic breast injections. Though the radiologic and histologic features are well describe, to our knowledge fine needle aspiration findings have not been reported. The study was conducted to analyse the findings of paraffinomas breast by fine needle aspiration in our settings and to create awareness about the lesion in Brunei Darussalam.

Materials and Methods: A retrospective analysis was conducted on 31 cases of paraffinoma breast diagnosed on FNA from 2004 (seven years period). An analysis of clinical and cytological performed. Modified aspiration technique discussed.

Results: Thirty cases were all females with mean age of 41.2 years (range 26 to 57) were identified. The mean age at the time of injection was 36 years old (range 21 to 55.5). History of injections was withheld in 76% cases and was revealed only later. Most patients were motivated by friends and colleagues. Examination Findings: breast lumps measuring 0.5 to 2.5cm were cystic to hard. A single case had discharging sinuses, ulceration and necrosis. Clear viscous fluid aspirated in 75% lesions. Cytology findings: smears were hypocellular to

moderately cellular. A constant feature was extracellular oily globules in all cases. Varying number of histiocytes and few multinucleated giant Cells with intracytoplasmic vacuoles, few foreign body granulomas, fibroblasts, few ductal cells and rare inflammatory cells seen. Infiltrating duct carcinoma and fibroadenoma were noted in one case each. The cosmetology service was received in Brunei, Philippines, Singapore, Malaysia and Thailand. Interestingly, the procedures only started in Brunei in last four years with some providing home service.

Conclusions: Cosmetic breast injections are practiced in Brunei. Paraffinomas of breast are seen in Brunei in adult females of all ages. These lesions can be diagnosed by FNA.

Prevalence and risk factors for pressure ulcers among patients admitted to the medical wards in RIPAS Hospital

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Introduction: Pressure ulcers although very common, its prevalence vary widely between hospitals. To date there are no published data available for pressure ulcers in Brunei Darussalam. This study looked at the prevalence and also to ascertain the baseline factors that may contribute to risk of developing pressure ulcers.

Materials and Methods: All medical patients admitted to wards 4, 19, 20, 21 and 22 during the month of May 2010 were included and identified. A proforma based on the European Pressure Ulcer Advisory Panel (EPUAP) model was used and modified to include several factors that may contribute to the risk of developing new pressure ulcers. The proforma was filled-in by the attending physician during the patient's admission and then subsequently followed-up by the parent admitting team until discharge.

Results: There were a total of 305 patients (104 male and 201 female) with a mean age of 48.94 ± 20.36 years old. There were five patients with pressure ulcers (1.6%), four of which developed during hospital stay and one patient was admitted with an ongoing pressure ulcer. All five patients were female with co-morbidities, were bed-bound and unwell during admission. On comparison to those without pressure ulcers, patients were significantly older (69 ± 16.91 years old), had more co-morbid-

ities, being bed bound and had lower serum haemoglobin (9.5 ± 0.89 gm/dL vs. 11.72 ± 2.68 gm/dL, $p < 0.05$), albumin (25.25 ± 6.40 gm/L vs. 35.45 ± 7.21 gm/L, $p < 0.05$) and total protein (62.25 ± 9.54 gm/L vs. 72.37 ± 8.86 gm/L, $p < 0.05$) on admission. Two patients died during their in-patient stay where as the remaining patients had prolonged hospital stay (over 30 days).

Conclusion: Our study has showed a prevalence of 1.6% pressure ulcers among our medical patients. We identified several factors that are significant in increasing patients' risk of developing pressure ulcers.

Spectrum of endoscopic findings among patients referred for colonoscopy in RIPAS Hospital

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Introduction: Colonoscopy is an investigation for the evaluation of lower gastrointestinal symptoms. Just like any other conditions, it is important to be aware of the spectrum of findings so that appropriate referral and decisions can be made.

Materials and Methods: Patients (mean age 52.3 ± 15.3 years old with almost equal proportion of genders) referred for colonoscopy in RIPAS Hospital over a five year period (January 2003 to December 2007) were retrospectively identified and studied.

Results: The most common indication for colonoscopy was bleeding per rectum (22.9%), followed by evaluation of abdominal pain (18.6%), anaemia (11.7%), colorectal cancer screening (11.7%), evaluation of constipation (5.9%) and altered bowel habits (3.8%). A large proportion (58.4%) colonoscopy was normal. The most common positive finding was haemorrhoids (30.3%), majority of which were categorised as grade I. This was followed by colonic polyps (17.6%), diverticular disease (12.1%), non-specific colitis (4.0%), colorectal cancers (4.0%) and ulcers (3.6%), melanosis coli (0.4%) and telangiectasia (0.1%). Colorectal cancer was most common among the Malays (4.4%), followed by the Chinese (4.0%), the indigenous (2.8%) and the others (1.2%).

Conclusions: Our study showed that the most

common indication was for the evaluation of bleeding per rectum. Majority had normal colonoscopy and the most common positive finding was haemorrhoids. Importantly colorectal neoplasms accounted for one fifth of procedures with colorectal cancers accounting for four percent.

Melioidosis: antibiogram of cases over 10 years from 2000 to 2009

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Introduction: Melioidosis, caused by *Burkholderia pseudomallei* is a life threatening illness with myriad of clinical manifestations. It is not uncommon in Brunei Darussalam, Appropriate antibiotic therapy is the mainstay of treatment. Successful treatment is complicated by the organism's intrinsic resistance to routine antibiotics and its propensity to recur despite prolonged therapy. The aim of this study was to study the pattern of antibiotic sensitivity of *Burkholderia pseudomallei* isolated in Brunei Darussalam over a period of ten years from 2000 to 2009.

Materials and Methods: Specimens collected based on the clinical presentations were subjected to standard microbiological procedures and identification of *Burkholderia pseudomallei* was done using the API20NE system (Biomerieux, UK). The antibiotic sensitivity testing was done using the Disk diffusion techniques on Muller-Hinton agar using commercially available antimicrobial disks following the standard guidelines from the National Committee of Clinical Laboratory Standards (NCCLS).

Results: Over the study period, 679 isolates were processed from 623 patients. The most common source being blood (n = 368) and pus from soft tissue abscesses (n = 218). The sensitivity to Imipenem, Meropenem, Piperacillin and Ceftazidime was 99 to 100%. Tetracycline sensitivity was 90-100% between 2000 to 2007 but fell down to 89 and 79% in 2008 and 2009 respectively. A drop in sensitivity over the 10 years was noted for amoxicillin-clavulanic acid, ampicillin-sulbactam and chloramphenicol. Cotrimoxazole sensitivity was 54% in 2000 dropping down to only 6% in 2009.

Conclusions: Imipenem, Meropenem, Piperacillin and Ceftazidime have remained effective drugs for the treatment of Melioidosis over the study period. Amoxicillin-clavulanic acid is still dependable for

long term maintenance therapy. In-vitro sensitivity performed as MIC values either by Etest or agar dilution is essential using Cotrimoxazole.

Cervical disc arthroplasty-Introduction of a new technology in Brunei Darussalam

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Introduction: The conventional management of a cervical disc prolapse causing radiculopathy or myelopathy has been excision of the prolapsed disc through an anterior cervical approach with or without fusion. The fusion is usually done with bone grafts plus plates and screws. Metal cages with bone grafts are also used for the time. There have been problems related to this procedures namely graft site pain and adjacent level disc degenerative changes as fused segments puts strain on the adjacent levels. To avoid these complications, various types of artificial discs have been marketed and are widely used now. This gives the normal cervical mobility to the patients with less adjacent level disc changes and patients are free from graft related problems.

Materials and Methods: Prestige LP artificial cervical disc system with titanium ceramic composite material is one the well-established cervical discs. This was used for a 51 years old male for the first time in Brunei on 5th August 2009 at two levels. Since then, we have done this for three more patients. Three patients had radiculopathy and one had myelopathy with compression of the cord. Through a standard anterior approach cervical discectomy was performed at both these levels followed by implantation of the artificial discs. The essential steps of the procedure would be shown.

Results: All three patients were mobilised on the same day and there were no need for a cervical collar and had normal neck movements in the immediate postoperative period. All the patients were discharged without any complications.

Conclusions: This technique was introduced in Brunei in August 2009. The cervical disc arthroplasty is intended to preserve the motion segment, reduce return time to work, reduce reoperations due to pseudoarthrosis and potentially prevent degenerative changes of adjacent segments, This will be used in the future for all patients with degenerative disc diseases requiring disc excision.

Alendronate related insufficiency fractures of the femur: a case series

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Introduction: Bisphosphonates including alendronate are effective anti-resorptive agents used for prevention and treatment of Osteoporosis. Recent reports have demonstrated an association between long term alendronate therapy and insufficiency fractures of the femur. This study reviewed the cases of insufficiency fractures of the femur in patients on alendronate therapy in Brunei Darussalam with particular reference to duration of treatment, prodromal symptoms, radiological features and management.

Material and Methods: A retrospective case note review of patients treated for alendronate related insufficiency fracture of femur was conducted.

Results: Four female patients were diagnosed with such fracture since 2003. The mean age was 64 years (range 53 to 73). The mean duration of alendronate treatment was 58 months (range 35 to 84 months). Two patients had typical subtrochanteric fracture, one patient had impending subtrochanteric fracture while in one case the distal shaft of femur was affected. Prodromal symptom of thigh pain was reported by three patients. Two patients had bilateral involvement and the same patients had fractures of the metatarsal one year before the femoral fractures. In three cases intramedullary nailing was done while in one case fixation was done by plate and screws.

Conclusion: Alendronate related insufficiency fractures of the femur are rare. Patients on long-term alendronate should be under surveillance for occurrence of these fractures and should be counseled. Prodromal symptom of thigh pain and typical radiological findings should raise the suspicion of an insufficiency fracture. Prophylactic fixation may be indicated in selected patients.

A case report of priapism

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Introduction: Priapism is a potentially harmful and painful medical condition in which the erect penis does not return to its flaccid state, despite the absence of both physical and psychological stimulation, within four hours. There are two types of priapism: low-flow (ischaemic) and high-flow (non-ischaemic). Priapism is considered a medical emergency, which should receive proper treatment by a qualified medical practitioner. Early treatment can be beneficial for a functional recovery.

Materials and Methods: Detailed case note review was performed.

Results: A 22-year-old man with history of chronic myeloid leukaemia presented with a three days history of persistent painful erection. Clinical examination showed an erected penis which was tender to palpation. An emergency procedure by aspiration was performed immediately under local anaesthesia by the bedside. An eighteen gauge needles were inserted on each corporal cavernosom through the glans penis. Fifty millilitre of blood clots were aspirated, but the penis remained tumescent. A decision was made to inject diluted adrenalin into the corpus cavernosum directly through the inserted needles. A second dose at five minutes interval was required and the penis returned to flaccid state. The patient was monitored intensively while treatment of adrenaline was given.

Conclusions: Priapism can be managed successfully with aspiration and adrenaline may be required.