

**ABSSS FP-1****Paediatric brain tumours and collaborative management- RIPAS experience**

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**Introduction:** Paediatric brain tumours are the second most common tumours in children after leukemia and it is the most common solid tumours in children with an incidence of 2-5 per 100,000. It consists of a diverse histological group of neoplasms. They manifest with variety of neurological symptoms and it is the third most common cause of death below 16 years. The main stay of treatment is maximal safe resection with adjuvant chemotherapy and radiotherapy. The outcome of these tumours depend on many factors such as age, tumour location, histological type, cerebrospinal fluid spread, amount of tumour removed during surgery and response to chemotherapy and radiotherapy. Multidisciplinary approach is a key factor in the management of these tumours. Patients have radiotherapy support from centres in Singapore and Kuala Lumpur, Malaysia.

**Materials and Methods:** This is a retrospective analysis of 29 children with brain tumours. The case details of all identified patients treated in RIPAS between Jan 1998 and Jan 2008 were analysed. The epidemiology, clinical features, radiological features, surgical procedures done, the role of adjuvant radio- and chemotherapy, recurrence and the complications especially related to chemotherapy were analysed.

**Results:** Among the patients, 20 are alive at the time of study. There were nine deaths; six due to medulloblastoma, two due to astrocytoma and one pineal tumour. The 2-year event free survival rate was 62% compared to the 68% of published literature from Singapore and 5-year event free survival rate is 39% compared to 50% of the Singapore data. There was relapse in seven cases. The reasons for the relapse were analysed. Febrile neutropenia was the most common complication associated with chemotherapy.

**Conclusions:** Our study showed that our experience with paediatric brain tumours is comparable to what have been published in the literature. Relapse of the condition after treatment was seen in a quarter of our patients.

**ABSSS FP-2****Observer variation with the use of classification system for ankle fractures**

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**Introduction:** Classification systems for fractures are used to grade severity of injury, plan treatment, prognosticate and compare results of treatment between centres. Various classification systems for ankle fracture are available and their observer variation has been studied with mixed results. The aim of this study was to assess the intra- and inter-observer variation with the use of Lauge-Hansen and AO Weber classification of ankle fractures and to assess agreement regarding use of syndesmotic screw for surgical treatment of ankle fractures.

**Material and Methods:** Antero-posterior and lateral radiographs of the injured ankle of patients (n=30) treated surgically were collected. Eight Orthopaedic surgeons with varying degrees of experience acted as observers. The blinded radiographs were reviewed at an interval of 3 weeks. Each session was preceded by a presentation on the fracture classification system studied. The inter- and intra-observer variation was assessed using kappa statistic with SPSS version 10.0.

**Results:** The results are expressed as mean kappa value (range) for Lauge-Hansen and AO Weber classification and for use of syndesmotic screw. The kappa score for intra-observer variation was 0.6 (0.2-0.9), 0.6 (0.6-0.9) and 0.5 (0.1-0.9) respectively while the kappa score for inter-observer variation was 0.5 (0.4-0.8), 0.6 (0.2-0.9) and 0.3 (0.02-0.8) respectively. Experience was not noted to affect the variation while training before each review may have affected the kappa score.

**Conclusion:** In agreement with the literature, we have noted considerable variation in the use of Lauge-Hansen and AO Weber classification for ankle fractures. Simpler AO Weber classification had better intra- and inter-observer agreement. The agreement between observers regarding use of syndesmotic screw was poor. Provision of reference images can improve the agreement with use of ankle fractures. The results of this study limit the use of the fracture classifications studied in selection of treatment options, prognosis and comparison of results between different centres.

**ABSSS FP-3****Effect of congenital hydrocephalus on intellectual abilities, seizures and obesity in Children**

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**Introduction:** The objective of this study is to outline the association of congenital hydrocephalus in children with intellectual abilities, seizures and obesity in hopes of improving these children's quality of life.

**Materials and Methods:** A selected cohort of children age 17 years or younger who underwent first-time shunt insertion to treat congenital hydrocephalus in RIPAS Hospital between January 2001 and December 2005 was retrospectively analyzed and assessed for intellectual abilities using Wechsler Intelligence Scale for Children - Version 4 (WISC-IV). Children's heights and weights were recorded to evaluate Body Mass Index (BMI) and any histories of seizures were recorded, as well.

**Results:** A total of 25 children underwent first-time shunt insertion for congenital hydrocephalus in RIPAS Hospital during the relevant time period. 7 children died resulting in a mortality rate of 28%. Out of the remaining 18, 9 children (5 females and 4 males) participated in the study and this represented a 50% overall participation rate (that is, the parents of 1 child refused for him/her to participate in the study whereas 6 children were unable to be contacted and 2 were unfit to attend psychological assessment). Out of the nine children assessed, one had visual difficulties thus a full scale IQ as well as scores for Verbal Comprehension and Perceptual Reasoning Indices could not be attained

**Conclusions:** This study showed that hydrocephalic children have low median IQ scores. Hydrocephalic children who experience seizures show a lower full IQ score than those who do not experience seizures. However, this relationship is not statistically significant. Out of nine children, one was obese, two were overweight, three had normal BMI and the remaining three were underweight.

**ABSSS FP-4****RIPAS Hospital breast reconstruction service in its infancy**

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**Introduction:** Breast cancer is among the most common malignancies in women, and the large majority of these patients undergo mastectomy as the primary modality of treatment. With women even as young as those in their 20's being diagnosed with breast cancer and undergoing mastectomy, offering the option of breast reconstruction becomes a vital element in the comprehensive care of these patients. Microsurgical techniques of breast reconstruction is the 'State of the Art' in breast reconstruction worldwide, and the Department of MaxilloFacial, Plastic and Reconstructive Surgery started offering the same almost a year ago. We review the cases of breast reconstruction performed in our Department over the past year, and analyse the outcome in terms of post op results, complications and patient satisfaction.

**Materials and Methods:** All cases of breast reconstruction performed in the department over the past year were included in the study. The parameters evaluated were the indications, technique, duration of surgery, aesthetics of the reconstructed breast, donor site morbidity, complications and patient satisfaction.

**Results:** A total of six breast reconstructions in five patients were performed on patients with different body types, ranging from slim to obese. One patient had bilateral immediate breast reconstruction and 4 patients had delayed unilateral reconstructions. There were no flap losses, and patient satisfaction with the aesthetics of the reconstructed breast was high. Only one patient was dissatisfied with abdominal wall contour asymmetry.

**Conclusion:** Microsurgical breast reconstruction at RIPAS Hospital is a safe and effective procedure with consistent results, and given the high degree of patient satisfaction, this option should be offered to all women who had mastectomy or are scheduled to have one.

#### ABSSS FP-5

### Comparison of ureteroscopy with or without ureteric stent placement in the management of distal ureteric calculi

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**Introduction:** Comparison of ureteroscopy with or without ureteric stent placement in the management of distal ureteric calculi.

**Materials and Methods:** This is a prospective non-randomised six months study to compare the outcomes after ureteroscopy for distal ureteric calculi with or without placement of a ureteric stent. A total of 300 patients with stones of 8-20 mm size located in the lower ureter were enrolled in this study and were divided into 2 groups. Group A (150 patients) had ureteroscopy followed by stent placement, and group B (150 Patients) had ureteroscopy without stent placement. The mean and standard deviations were calculated for age, duration of procedure and size of stone. Frequencies and percentages were calculated for flank pain, dysuria, haematuria, and urinary tract infection (UTI). Chi square test was applied to compare those variables between group A and B. A p value < 0.05 was taken as significant. Unpaired t-test was applied to compare duration of the disease, size of the stone, and age of the patient.

**Results:** Of the 300 patients, 216 (72%) were male and 84 (28%) were female with an average age of  $39.01 \pm 14.57$  years. Flank pain was present in 72% in group A and 40% in group B ( $p=0.0005$ ). The prevalence of haematuria was significantly higher in group A than group B (26.7% vs. 10.7%;  $p=0.001$ ). UTI was detected in 22.7% in group A and 13.3% in group B ( $p=0.035$ ). Dysuria was significantly higher in group A compared to group B (61.3% vs. 18%;  $p=0.0005$ ).

**Conclusion:** Uncomplicated ureteroscopy for removing distal ureteral calculi is safe without stent placement. Patients without stents have significantly less flank pain, haematuria, UTI and dysuria. Furthermore they do not need readmission for cystoscopy and stent removal.

#### ABSSS FP-6

### Paraffinoma- The silent epidemic

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**Introduction:** Paraffinoma also known as Sclerosing Lipogranuloma, is characterised by chronic granuloma and fibrosis due to injection of paraffin into tissues. It is a disease arising from early 20<sup>th</sup> century disastrous cosmetic practice that has continued in the hands of unscrupulous perpetrators. In Brunei Darussalam, only a small proportion of patients affected by this condition seek medical help, and many are still suffering in silence most likely due to fear of consequences of disclosure. We review the RIPAS Hospital Department of Maxillofacial and Plastic Surgery experience in managing patients from all walks of life who present with disease affecting various sites of the body, some of which even mimicked malignancy.

**Material and Methods:** Prospective review of management of eight patients since February 2012 who have either self-referred or referred by a medical practitioner was carried out. Treatment includes non-invasive symptomatic control, minimally invasive curettage and radical excisions followed by reconstruction with skin grafts or micro vascular free flaps.

**Results:** Seven out of eight patients required surgical intervention. All had satisfactory surgical outcome even though complete removal of the affected tissue is impossible from the outset. Only one patient did not present initially with prior history of paraffin injection and misguided the initial stages of management of patient's complaint.

**Conclusion:** Paraffinoma can mimic various diseases and its recognition can prevent major treatment issues especially in patients who do not disclose it. In the appropriate selected patient, surgical treatment gives satisfactory result. Prevention through education and persecution of the elusive perpetrators will be the only effective ways in dealing with this silent epidemic.

**ABSS FP-7**

**Results of primary repair of penile paraffinoma excision-60 cases in 8 years at RIPAS Hospital**

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**Introduction:** Injection of oily material into the penile foreskin and penile shaft skin by non-medical practitioners is a common misleading belief in adult males of unknown incidence. The injection causes thickening of local tissues and hence enhances the size of the penis for sexual gratification. The volume of the injected oily material varies and reactions occur early after injections. Local tissues reaction to the oil material causes non-retractable foreskin, infection, migration of oily material to the deeper tissues layers and regional lymph nodes. This reaction can cause breaking down of penile skin resulting in ulcerations and infection. Sexual intercourse becomes difficult and painful for both partners which bring the patients to look for treatment. Several techniques have been described in removing penile paraffinoma in the past such as single and second stage repair using scrotal flaps.

**Materials and Methods:** All cases of penile paraffinoma treated by the Urology Unit, Department of Surgery were identified and retrospectively reviewed.

**Results:** We first encountered paraffinoma cases in 2004 in Brunei Darussalam and from October 2004 till November 2012, we have performed 60 cases. Results showed 1 case developed complication of total skin necrosis after extensive local excision. Extensive debridement of penile skin followed by local rotational scrotal repair was performed in this case. Post operatively, the result was good. We have adopted this technique for the rest of the cases of extensive penile paraffinoma and sometimes partial excisions were performed for less extensive cases.

**Conclusion:** At our institution, we only have plastic surgical specialty since 2011 but we are still performing for patients with extensive penile paraffinoma as we have wider experience over the years. The outcome of this technique is both cosmetically and functionally satisfactory and acceptable by the patients.

**ABSS FP-8**

**Paediatric neurosurgery in RIPAS Hospital, Brunei Darussalam**

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**Introduction:** A formal neurosurgery department was established in RIPAS hospital in May 1998 and has been providing tertiary care services for both paediatric and adult patients in all disciplines of neurosurgery including spine. Introduction of newer imaging (3 Tesla MRI, 64 Multi-slice CT and Biplanar angio) and interventional tools (operative microscopes, image guidance system, Cavitron Ultrasonic surgical aspirator, endoscopes and various spinal implants) have improved diagnostic and treatment. This study assesses the various surgical procedures done in the paediatric population.

**Materials and Methods:** Patients were retrospectively identified from the operation register (May 1998- May 2012) and detailed case files reviews were conducted. 12 years was taken as the cut off point for paediatric age based on the admitting age limit to the paediatric wards of RIPAS hospital. A total of 241 cases were operated during this period. Procedures done included neurotrauma, neuro oncology, congenital anomalies, central nervous system infections, spinal dysraphic anomalies and craniovertebral junction anomalies.

**Results:** Overall, 40 patients had surgical intervention for neurotraumas, including various types of intracranial bleeds and 43 patients underwent interventions for brain tumours of various histological types with infratentorial compartment the most common location. There were 77 cases of ventriculo-peritoneal shunt placement and approximately a third had shunt revision. The infection rate was low with only 3 cases of shunt infections recorded. With the assistance of paediatric surgeon, rare complications such as CSF ascites could be managed. The data of other procedures along with a few interesting cases will be presented.

**Conclusions:** The incidence of paediatric brain tumours and other neurosurgical conditions were similar to what have been reported. The procedures performed were of similar nature. Some fields like endoscopic and epilepsy surgeries need to be established. With the establishment of paediatric surgery in RIPAS hospital, we will be able to provide better paediatric services.

**ABSSS FP-9**

**Reconstructive microsurgery:  
The RIPAS Hospital experience**

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**Introduction:** Complex injuries like those following high-velocity Motor Vehicle Accidents and major cancer resection result in the loss or destruction of different tissue types which cannot be successfully reconstructed by conventional means. Microsurgical techniques of reconstruction allow us to harvest and replace the specific type of tissue that is deficient at the defect, be they skin, muscle, bone or even nerves and blood vessels, so as to create a tailor-made flap to restore the structural integrity of the wound. The Reconstructive Microsurgery service at RIPAS Hospital has been in existence since 2008, initially with the help of a Visiting Consultant and for the past one year with own local microsurgery team. We review our series of reconstructive microsurgical procedures performed at RIPAS Hospital since its inception, analyse the case profile and outcome parameters and compare them to accepted international standards.

**Materials and Methods:** All microsurgery cases from July 2008 to October 2012 were included in the study. The parameters studied were the indications for and type of flap, ischemia time, post op flap or donor site complications. These were then compared to the existing standards as described in the literature.

**Results:** A total of 41 free tissue transfers in 39 patients were performed from July 2008 to October 2012. Nearly half of the cases were done in the past one year after the establishment of a local microsurgery team. The indications ranged from facial reanimation for facial palsy to breast reconstruction, and head and neck cancer reconstruction. There were no flap failures three patients required re-exploration (7.5%) and two patients developed donor site hematomas which were evacuated and settled thereafter. These statistics were comparable to the established data in published large series.

**Conclusion:** Reconstructive microsurgery service at RIPAS Hospital is safe and reliable for the restoration of complex anatomical defects and compares favorably with existing international standards.

**ABSSS FP-10**

**Transurethral vaporesction of  
prostate with Thulium Laser  
(RevoLix)**

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**Introduction:** In recent years there has been an increased popularity for lasers in the treatment of benign prostatic hyperplasia (BPH). Various different types of lasers have been introduced. The RevoLix system is a continuous wave thulium laser device which can both vaporize and resect prostatic tissue. It offers a relatively bloodless, rapid and efficient resection of the prostate tissue with minimal complications including patients who are on anti-coagulants.

**Materials and Methods:** We reviewed 30 consecutive patients who underwent RevoLix laser vaporesction from 1<sup>st</sup> January 2008 to 30<sup>th</sup> May 2009 at Hospital Selayang with a minimum of post-operative follow up period of one year. The mean age was 64 years with a mean prostate volume of 36cc. The procedure was performed using bare-ended 800 µm front-firing fibers with a 26 French laser resectoscope. Outcomes measured were resection time, Quality of Life Index (QoL), International Prostate Symptom Score (IPSS), urinary flow rate (Q max), post-voiding residual urine (PVR), time taken to removal of urinary catheter and post op complications early and late.

**Results:** With the remarkable haemostasis achieved with RevoLix laser vaporesction most patients had their catheter removed early and hence earlier discharge. Significant improvement in the Q max, PVR, IPSS and QoL were noted.

**Conclusion:** The described method is to do median lobe resection first but we found vaporesction of the lateral lobes first to be a technically easier procedure. This video illustrates the technique we have used in RevoLix laser vaporesction at Hospital Selayang.