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Session in conjunction with
the 8th Surgical Forum
13th November 2011**

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Department
of
General surgery
RIPAS Hospital



**5th Annual Brunei Surgical Scientific Session in conjunction with
8th Surgical Forum 2011**

Date and Venue:
13th November 2011 Sunday
Indera Kayangan Ballroom, The Empire Hotel & Country Club

Fees:
Doctors \$15; Nurses & Allied health care workers \$10 (Limited spaces)
After 6th November 2011, \$20 and \$15 respectively

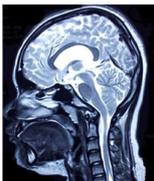
Registration:
Surgical Outpatients Department, RIPAS Hospital
Tel: 2242424 Extension 6280

Theme:
Surgical Potpourri

Programme:

0800-0830	Registration
0830-0835	Recital of Al Fatihah
0835-0840	Opening speech by Chairman of Organising Committee, Mr. Chong Chean Leung
0840-0900	Official opening by Guest of Honour
0900-0930	Safety in Surgery – Associate Professor Mr. Kenneth YY Kok
0930-0950	Coffee break
Session A	
0950-1010	Breast Surgery Updates – Professor Dr. Yip Cheng Har
1010-1030	Breast & thyroid tumours: Is there a link? – Dato Mr. SYS Yapp
1030-1050	Transcatheter Aortic Valve Implantation – Mr. William Chong & Mr. Edgar Tay (NUH)
1050-1100	Questions and answers session
Session B	
1100-1120	Plastic & Reconstructive Surgery – Mr. Chan Koo Guan
1120-1140	Extracorporeal Shock Wave Lithotripsy – Mr. Hj Yusri Yahya
1140-1150	Questions and answers session
1150-1205	Surgical quiz – Mr. Hj Mohammad Ady Adillah Hj Ahmad
1205-1300	Buffet lunch
Session C & D	
(5 th Annual Brunei Surgical Scientific Session)	
1300-1600	Free paper presentations
1600-1615	Coffee Break
Closing session	
1615-1630	Answers for surgical quiz - Mr. Hj Md Ady Adillah Hj Ahmad
1630-1645	Prize presentations for best free paper & surgical quiz
1645	Closing remarks

3 CME points



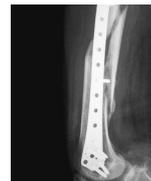
MRI of Chiari I malformation



Post amputation



Unicameral cyst treated with CHRONOS bone graft substitute



Implants



Surgery being carried out in RIPAS Hospital

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Free papers presented in the 5th Annual Brunei Surgical Scientific Session in conjunction with the 8th Surgical Forum, 13th November 2011 at The Empire Hotel and Country Club, Brunei Darussalam.

FP1: Epidemiology of lower limb amputations in RIPAS Hospital

Sanjeev **TRIPATHI**, Ketan **PANDE**

Department of Orthopaedics, RIPAS Hospital, Brunei Darussalam

Introduction: Lower limb amputations, particularly Below Knee Amputations cause considerable morbidity and affect activities of daily living. World wide, trauma and diabetes mellitus are the main causes leading to lower limb amputations. The aim of this study is to look at demography of patients who underwent lower limb amputations in RIPAS Hospital.

Material and Methods: Patients who underwent lower limb amputations in RIPAS Hospital from January 2009 to September 2011 were identified from the Operation Theatre records. Their case notes were traced, and data collected for further analysis. It is presented as descriptive results.

Results: A total of 81 patients underwent 100 lower limb amputations during the study period (2009 n=23, 2010 n=33 and 2011 n=25). The most common level of amputation was below knee (n=38) and toe amputation (n=35). Seventy eight patients had diabetes mellitus, while in three patients had amputations following trauma injuries. Thirty three patients needed multiple surgeries.

Conclusion: Below knee and toe amputations are the most common type of lower limb amputations in RIPAS Hospital. Around 40% of patients needed multiple surgeries. Diabetes mellitus was the leading cause of lower limb amputations in RIPAS Hospital.

FP2: Cutaneous leishmania: a case report

Hla **OO**¹, Pemasari Upali **TELISINGHE**¹, Ghazala **KAFEEL**¹, A **LWIN**²

¹ Department of Pathology, RIPAS Hospital, Bandar Seri Begawan, and ² Department of Surgery, Suri Seri Begawan Hospital, Kuala Belait, Brunei Darussalam

Leishmaniasis is a vector borne parasitic disease. It is one of the world's poverty related diseases, affecting largely the underprivileged section of the society in endemic countries. Leishmaniasis can be classified into three types: cutaneous, mucocutaneous and visceral leishmaniasis. With increase in

international travel and population migration, overseas military exercises and deployments, and HIV infection, leishmaniasis is now becoming more prevalent throughout the world. Cutaneous leishmaniasis may present with a solitary scaly popular lesion which may progress into a nodule to a rounded ulcer with raised margin. The ulcerated lesion may be misdiagnosed as skin cancer, tuberculosis or fungal infection especially to those who unfamiliar with this condition. We report an imported case of cutaneous leishmaniasis to raise awareness of this condition among healthcare workers in Brunei Darussalam.

FP3: Thromboprophylaxis in patients undergoing major abdominal surgeries

Maizatul **ISMAIL**, Chee Fui **CHONG**, Department of Surgery, RIPAS Hospital, Brunei Darussalam

Introduction: The American College of Chest Physician guidelines recommends that all general surgery patients with low risk of bleeding, undergoing major procedure should receive pharmacologic prophylaxis. In RIPAS Hospital, there is no data yet regarding the use of thromboprophylaxis and incidence of deep venous thrombosis (DVT) in patients following major abdominal surgeries. The aim of this study is to determine the percentage use of thromboprophylaxis, incidence of DVT, and average duration of immobility post surgery in patients undergoing major abdominal surgeries in RIPAS hospital.

Materials and Methods: We have gathered retrospective data from major elective and emergency abdominal surgeries done between August to October 2010. List for all surgeries done within the period were obtained from Department of Surgery Operative Notes database and all laparotomies, bowel resections, abdominal aortic aneurysm, hepatic and pancreatic surgeries were included in the study. Patients' case notes were traced and data regarding use of thromboprophylaxis, contraindications, duration and type of prophylaxis, incidence of clinical DVT/PE, co morbidities and mobility were obtained. Data were analysed using Microsoft Excel.

Results: Out of 34 patients in the study, 40% received thromboprophylaxis. Most patients received Fragmin (86%) but only one patient received Fragmin until discharge from hospital. One patient who

did not receive thromboprophylaxis developed DVT (overall 2.9% incidence). The average number of days of immobility post-op is 3 days.

Conclusion: Despite low incidence of DVT and relatively higher percentage use of thromboprophylaxis than cited in literature, there is room for improvement for the use of thromboprophylaxis for surgical patients in RIPAS hospital.

FP4: Unicameral bone cysts: A review of cases managed with CHRONOS bone graft substitute

Biju **BENJAMIN**, Ketan **PANDE**

Department of Orthopaedics, RIPAS Hospital, Bandar Seri Begawan, Brunei Darussalam

Introduction: A unicameral bone cyst (UBC) is a benign membrane lined cavity found within a bone that is filled with fluid. Surgery may be needed if the cyst is in a location that might cause pathologic fracture. If the unicameral bone cyst is painful, growing larger, or in a location that may fracture or have already fractured, the cyst will need to be aspirated and injected with steroids or curetted and packed with bone graft or a bone graft substitute. The aim of this study was to demonstrate whether curettage and grafting with a bone graft substitute alone would result in healing of the UBC.

Materials and Methods: This was a retrospective review of three children with UBC and pathological fractures, treated with curettage and grafting using bone graft substitute beta-tricalcium phosphate granules (CHRONOS). Inclusion criteria were a radiological diagnosis of UBC and at least 24 months follow up from the last procedure. Healing was confirmed using the Neer/Cole 4-grades rating scale.

Results: The three children presented as pathological fractures of femur through bone cysts of varying sizes. All were managed initially by a period of skin traction and subsequently curettage of the bone cyst and grafting using CHRONOS. One patient needed an additional external fixator application. All three patients went on to full union of the fracture and good consolidation of the graft with small residual cysts (Neer/Cole grades II).

Conclusion: These results show that curettage and grafting using CHRONOS granules is an effective way of treatment of UBC. By using this method, we were able to avoid the necessity of obtaining bone graft. It shortened operative time and avoided donor site morbidity. A coordinated research effort is required to refine the treatment approach to a UBC.



FP5: Anterior cruciate ligament reconstruction in Brunei Darussalam: a comparison with European and North American cohorts.

Biju **BENJAMIN**¹, Robert **MAGNUSSON**^{2, 1} Department of Orthopaedic Surgery, RIPAS Hospital, Brunei Darussalam, ² Department of Orthopaedic surgery, Ohio State University Medical School, Columbus, Ohio, USA

Introduction: The sports medicine community has only recently begun to develop and use registries and other large prospective cohorts to evaluate outcomes following anterior cruciate ligament (ACL) reconstruction. We are unaware of any study describing the epidemiology of ACL reconstructions in a non-Western society. In order to address this need, we have compiled demographic data and surgical findings on all ACL reconstructions performed in the country of Brunei Darussalam during the last four years.

Materials and Methods: For the creation of a Brunei national ligament registry, demographic data and surgical findings for all patients undergoing ACL reconstruction between January 1, 2007 and December 31, 2010, were collected retrospectively from the case records. We utilized data collection forms based on the Scandinavian ligament registries. The resulting data were compared with baseline data from the Scandinavian registries and the MOON cohort in the United States.

Results: There were a total of 214 ACL reconstructions performed in Brunei Darussalam during the study period. The age of patients undergoing surgery as well as the delay from injury to surgery was relatively similar in Brunei and Scandinavia though the patients in the MOON cohort were generally younger and underwent surgery sooner. Commonest activity causing injury was football. All patients in Brunei underwent ACL reconstruction with hamstring autografts which contrasts with the other cohorts.

Conclusions: Ligament registries provide detailed epidemiological data that can be used to calculate revision rates, assess patient-reported outcome scores, and compare various techniques and implants. Inclusion of cases from an entire country minimizes selection bias and maximises data volume, increasing the possibility of drawing early conclusions. After analysing the data from the last three years, we have decided to improve upon the registry by initiating the collection of pre- and post-operative patient-reported outcome scores and

improving documentation strategies for cartilage defects which were the limitations of this study. The Brunei national ACL registries will generate new data about ACL reconstructions and they will contribute to a better understanding of ACL epidemiology in this country.

FP6: Percutaneous nephrolithotripsy extension table- The love boat

Hock Beng **CHUA**, Urology Unit, Department of Surgery, RIPAS Hospital, Brunei Darussalam

Percutaneous nephrolithotripsy (PCNL) procedures are common major urological procedures in treating large renal stone especially those with renal staghorn calculi. The procedure involves two steps with initial stage of identifying the renal calyceal system using contrast via ureteric catheter inserted cystoscopically in lithotomy position. The second stage involves turning the patient in prone position and needle puncturing of the most direct and posterior selected calyx of the affected kidney and to gain access to the stone for fragmentation and removal. Multiple punctures may be required to allow complete clearance of stones. Without proper urological operating table, the intensive imaging is unable to show effectively of the images due to restriction of movement of the C-arm. This paper describe a self made extension table for PCNL procedures which has been used in 120 cases in RIPAS hospital since October 2007. This extension table allows access and better imaging during the second stage PCNL procedure. This extension table has been proven to be easy to fix and allows effective use of intensive imaging without compromising the view of the images. It is also more cost effective than buy a new motorised urological operating table.

FP7: Minimally Invasive Plate Osteosynthesis (MIPO) of lower limb diaphyseal and metaphyseal fractures: A retrospective study comparing MIPO with closed intramedullary nailing in RIPASH

Biju **BENJAMIN**¹, Azmi **MOHAMAD**¹, John **KYELEVE**², Dipo **OLABUMUYI**¹

¹ Department of Orthopaedic Surgery, RIPAS Hospital, Brunei Darussalam

² Department of Mathematics & Statistics, Universiti Brunei Darussalam, Brunei Darussalam

Introduction: Intramedullary nailing is considered

the gold standard treatment of diaphyseal fractures of long bones. Distal fractures however, have a tendency to result in malunion and anterior knee pain is also a problem in tibial fractures. Narrow medullary canals can prove to be an obstacle to nailing and repeated reaming can cause thermal injury. Traditional plate osteosynthesis (ORIF) of long bone fractures focuses on anatomical reduction of fracture and absolute stability but is plagued by infection and sequestrum formation. Minimally invasive plate osteosynthesis (MIPO) is an alternative technique to intra-medullary devices, external fixation and standard plate osteosynthesis in the management of long bone fractures. We reviewed our experience in treating lower limb diaphyseal and metaphyseal fractures using the MIPO techniques.

Materials and Methods: We compared the outcome of MIPO fixation with intramedullary nailing of long bones fractures. We analyzed wound healing, mobilization time, time to union, functional outcome and limb alignment.

Results: Although there was statistical significance in total number of days spent in hospital and delay in definitive surgeries between the two groups, there was no statistical significance between the days required to mobilize after surgery. All our MIPO patients were able to fully weight bear at 25 weeks and achieved union at a median period of six months after surgery. There was only one case of superficial wound infection.

Conclusion: MIPO technique is effective for fractures of the lower limbs. The use of indirect reduction techniques and small incisions decreases surgical trauma to soft tissues and improves union rates and recovery for the patients.

FP8: Open repair of descending thoracic aneurysms using clamp and sew techniques without cardiopulmonary bypass

Chee Fui **CHONG**¹, Hong Sang **CHUA**¹, Lian Tat **TAN**², Kim Khee **TAN**²,¹ Thoracic Unit, ² Department of Surgery, RIPAS Hospital, Brunei Darussalam

Introduction: Open surgical repair of descending thoracic aortic aneurysm (DTAA) carry significant morbidity and mortality and are usually performed in specialised high volume centres, using a combination of cardiopulmonary bypass and hypothermic circulatory arrest. We describe here our unit's experience in performing open surgical repair of DTAA using only the clamp and sew techniques in our first three patients and describe the planning and tech-

niques undertaken to safely conduct such procedures.

Materials and Methods: Three patients who had undergone DTAA repair from 2009 were identified from our Department of Surgery Operation Note Databases. Their medical record were then retrieved and clinical data extracted.

Results: The mean age of patients (two males and one female) was 62.7 ± 9.1 years (range 56 to 73). In two patients with short segment DTAA, direct clamp and sew using 22mm Gore-Tex grafts was performed while the third patient with a long segment DTAA was repaired using a 22mm Gore-Tex with an 8 mm side branch attached for perfusion of the distal aorta after completion of the proximal anastomoses. The mean initial cross clamp time was 30 ± 8.1 minutes (range 22 to 38). The mean total cross clamp time was 49.0 ± 15.1 minutes (range 33 to 63). Cerebrospinal fluid (CSF) drainage was used in all three patients and the pressure were maintained at 10mmHg for 48 hours post-operatively. The mean intensive care unit (ICU) and hospital stay were 6 ± 1 and 17.0 ± 4.4 days. Two patients developed temporary hoarseness of voice which recovered during follow-up. The third patient who previously had a left cerebrovascular accident (CVA) developed a post-operative right cerebellar embolic infarct but recovered fully by the time of discharge. All patients were discharged fully ambulating.

Conclusions: With multidisciplinary team planning, short cross clamp time, branch perfusion of the distal aorta and CSF drainage, DTAA can be safely repaired without the use of cardiopulmonary bypass and hypothermic circulatory arrest, with no mortality, minimal morbidities and excellent early results.

FP9: Effects of stress of 24 hours oncall on brachial artery flow mediated vasodilatation in junior doctors

Muhammad Ali **PG A ROSLEDZANA**¹, Nurolaini **MUHD KIFLI**¹, Ayub **SADDIQ**¹, Chee Fui **CHONG**², ¹PAPRSB Institute of Health Science, UBD, Brunei Darussalam, ²Thoracic Unit, Department of Surgery, RIPAS Hospital, Brunei Darussalam

Introduction: Stress is very common in medical doctors and was shown to have a negative effect over endothelial function. Any impairment in endothelial function as a result of stress may predispose doctors to develop cardiovascular diseases. Thus this study intends to investigate the adverse effects of stress for doctors in Brunei Darussalam who are

on 24 hour oncall particularly the adverse effects of oncall stress on their brachial artery flow mediated vasodilatation

Materials and Methods: A prospective study conducted with a within-participant (paired) analysis was conducted. Random sampling was done on Junior doctors (Pre-Registration House Officers [PRHOs], Medical Officers [MOs] and Senior Medical Officers [SMOs]), aged between 25yrs and 50 yrs, working at RIPAS Hospital. Their brachial artery flow mediated vasodilatation was assessed once before and another on the morning after being oncall for 24 hours in RIPAS hospital. Blood supply to forearm was occluded for five minutes and brachial artery diameter was measured at one, two, three and five minutes post cuff deflation

Results: Brachial artery Flow Mediated Vasodilatation (FMD) in doctors after a 24 hour oncall tends to be attenuated when compared to precall FMD. This trend was significant at two minutes ($p=0.03$) and three minutes ($p=0.003$) post cuff release. There was no significant difference in FMD achieved at one minute ($p=0.154$) and five minutes ($p=0.327$). Analysis on variables such as duration of sleep, gender and racial origin were all significant factors for attenuation of brachial artery FMD after a period of 24 hours oncall.

Conclusions: The effect of stress of being on 24 hour oncall has adverse effects on brachial artery FMD in junior doctors. This adverse effect is significantly more prominent in junior doctors who had less than five hours of sleep of male gender and of Malay racial origin

F10: Heterotopic pregnancy: a case report

Mridula A **BENJAMIN**¹, Sunil **SHETTY**², Amy **THIEN**³, April **HLA** Thein Ayi¹

¹Department of Obstetrics and Gynaecology, ²Department of Accident and Emergency, ³Department of Surgery, RIPAS Hospital, Bandar Seri Begawan, Brunei Darussalam

Heterotopic pregnancy is defined as the presence of two gestations simultaneously, one intrauterine and the other extrauterine. This is a rare situation with a reported incidence of 1:30,000 in normal conception. We report the case of a 28 year-old primigravida of Bruneian who presented to the Accident and Emergency Department with a history of acute abdomen. A careful ultrasound assessment showed intrauterine pregnancy and free fluid in abdomen. As the patient developed hypotension, immediate

surgical intervention was undertaken by the general surgeons with the suspicion of acute appendicitis. As the bleeding continued after an appendectomy, the assistance of the Gynaecology team was obtained. Further examination revealed a ruptured right sided ectopic pregnancy with ongoing bleed. A right salpingectomy was performed. The intrauterine pregnancy continued to term and the patient delivered a normal baby. Our case highlight that obstetrician should keep in mind the occurrence of a heterotopic pregnancy while dealing with pregnant females. The ectopic gestation invariably ruptures over a period of time leaving the patient in an emergency situation. A quick assessment and careful handling of the normal gestation can lead the patient to term with gratifying results.

F11: Survey of practice, interpretation and understanding of passive straight leg raising test (PSLRT)

Ketan **PANDE** Department of Orthopaedics, RIPAS Hospital, Brunei Darussalam

Introduction: Passive straight leg raising test (PSLRT) is one of the most commonly performed test in clinical practice with acceptable sensitivity and specificity. Its mechanism has been extensively investigated. From personal observation and limited data in the literature, there is considerable variation in how PSLRT is performed and interpreted. The purpose of this study was to survey the practice, interpretation and understanding of PSLRT in Brunei Darussalam.

Materials and Methods: A questionnaire survey was developed covering various aspects of PSLRT. Orthopaedic surgeons, neurosurgeons and physiotherapists were identified as clinicians performing this test regularly and were approached to take part in the survey. The results are presented as descriptive statistics and using non-parametric tests where appropriate.

Results: The number of clinicians taking part in the survey was orthopaedic surgeons (n=15), neurosurgeons (n=7) and physiotherapists (n=9). The PSLRT was used in all cases of back and leg pain by 68% of clinicians surveyed but only 23% was noted to be interpreting it correctly. There was a wide variation in the angle at which it was considered positive (median 45 degrees; range 10-90 degrees). 90% felt that a positive PSLRT suggests nerve root irritation and 58% thought it was due to stretch of dura and nerve root. The distraction SLR and well leg SLR was performed only by 10% and

52% of clinicians. 90% agreed that a negative PSLRT does not rule out intervertebral disc prolapse. 42% rated overall usefulness of PSLRT as 4 on a scale from 0 to 5 and 90% reported that a positive PSLRT affects the way they treat a patient. There was more consistency in the way the PSLRT was performed.

Conclusions: The present survey reveals that PSLRT is widely and correctly performed, felt to be useful in practice and reported to affect the way a patient is treated. But the interpretation of a positive test and understanding of its mechanism was poor. There was a wide variation in the angle at which it was deemed positive. The use and interpretation of variations of PSLRT was also poor. There is a need to improve the interpretation and understanding of PSLRT amongst its users.

FP12: Effects of foramen magnum decompression with duraplasty on Chiari I malformation-associated hydromyelia

Murugaiyan **Anbuselvam**, Haroon M **PILLAY**, Rajesh **RAYKAR**, Marimuthu **PARANEETHARAN**, Thalappilly Krishnan **JAYARAJAN**, Nourul **JAMAN** Department of Neurosurgery, RIPAS Hospital, Bandar Seri Begawan, Brunei Darussalam

Introduction: The optimal surgical treatment of Chiari I malformation (CM I) is unclear especially in patients with hydromyelia. Various surgical techniques have been described. The purpose of the study is to study the effects of the posterior fossa decompression with duraplasty on CM I - associated hydromyelia.

Materials and Methods: A retrospective analysis of seven patients with symptomatic CM I with hydromyelia patients who had foramen magnum decompression (FMD) with duraplasty performed in RIPAS hospital from 2000 to 2011 was done. The age range of the patients was from 9 to 60 years. The patients were followed up. The mean follow up period was 5.2 years with the range from 0.5 year to 11 years. All had FMD, removal of posterior arch of Atlas. All except one, in addition had sub pial resection of the tonsils.

Results: Five (71%) of these patients had an improvement in symptoms. Three showed regression of the hydromyelia in the magnetic resonance imaging (MRI) scans. Two (29%) patients had worsening of the symptoms. One patient had persistent hydromyelia and in the other, tonsillar herniation persisted. These two patients are planned for revision surgery. Two patients are yet to have their

follow up MRI scans to assess the hydromyelia. There were no surgery related complications.

Conclusion: There is currently no data documenting a particular surgical technique that results in superior outcomes for CM I. FMD, C1 laminectomy and duraplasty for the treatment of CM I associated hydromyelia may lead to a reliable reduction in the size of the hydromyelia. Resection of the tonsils is an important step in having a more positive outcome. Continued work is needed to better understand the pathophysiology of the CM I and to develop more effective surgical treatment.

FP13: Brain tumours in Brunei Darussalam- A pathologist's overview

Ghazala **KAFEEL**, Pemasari Upali **TELISINGHE**, Hla **OO**, Department of Pathology, RIPAS Hospital, Brunei Darussalam

Introduction: Brain is encased in skull and do not have enough space for expansion. Brain functions are affected early with tumour growth. Even benign tumours become life threatening. Complete surgical removal is difficult without damage to brain structures and functions. Thus brain tumours are per-

haps feared the most because they result in severe disability, impaired intellect and even death. A retrospective analysis of brain biopsies was conducted to study the pattern of brain tumours in Brunei Darussalam.

Material and Methods: All histopathologically diagnosed cases of brain tumours were retrieved from the Laboratory information system from 1996 to 2010 and was analysed.

Results: An annual incidence of malignant brain tumours was found to be 2.1/100,000 population. There was slight male preponderance. Tumours were found at all age groups, 73% were found in adults while 27% cases were children. According to the racial distribution incidence was higher in Malay population. Only 20% cases were metastatic in nature while 80% were primary tumours. In Brunei Darussalam the incidence of brain tumours shows a rising trend. Gliomas were the commonest tumours found.

Conclusion: The incidence of brain tumours in Brunei Darussalam is on the rise and comparable to other countries. Prognosis remains poor. Awareness is essential for early diagnosis. Further research is still required in this field to reduce the incidence, morbidity and mortality caused by these lesions.

**Please look out for the 6th Annual Brunei
Surgical Scientific Session in conjunction with
the 9th Surgical Forum
November 2012**

**Abstract submissions from colleagues from
the other departments and hospitals are
welcome**

Announcements

Medical Writing Workshop- 'Original Research: Planning, data collection, analyses, writing to publication'

February 2012 (Sunday), organised by the Clinical Research Unit, Ministry of Health, RIPAS Hospital, Brunei Darussalam.

Venue and date to be announced.

3rd National Medical Writing Skills Workshop

May 2012, organised by the Clinical Research Unit, Ministry of Health, RIPAS Hospital, Brunei Darussalam.

Date and Venue: To be announced.

Medical Symposium

September/October 2012 (Sunday), organised by Department of Medicine, RIPAS Hospital, Brunei Darussalam.

Date and Venue: To be announced.

The organising committee invites our local researchers to contribute to the free papers section. Any topics that are surgically related in the forms of case reports, case series and original articles will be welcomed. A few these submissions will be selected for free papers presentations and the remainder will be presented as poster presentations.

Free papers and posters presentations will be published as Supplement of BIMJ.

6th Annual Brunei Surgical Scientific Session in conjunction with the 9th Surgical Forum

November 2012 (Sunday), organised by Department of Surgery, RIPAS Hospital, Brunei Darussalam.

Date and Venue: To be announced.

The organising committee invites our local researchers to contribute to the free papers section. Any topics that are surgically related in the forms of case reports, case series and original articles will be welcomed. A few these submissions will be selected for free papers presentations and the remainder will be presented as poster presentations.

Free papers and posters presentations will be published as Supplement of BIMJ.

3rd National Evidence Based Medicine and Nursing Workshop

Organised by Ministry of Health, Brunei Darussalam.

Venue and date: To be announced (November 2012, three days workshop).

Updates and details of programs, Continuous Medical Education (CME) or conferences are available from the CRU/journal website (www.bimjonline.com).

NOTES: For organisers who wish to advertise their meetings (National CME meetings, conferences or workshops), please contact the CRU, Ministry of Health located at RIPAS hospital either via email or through telephone. Please visit the journal website for more details.
