10th ASEAN Neurological Association (ASNA) Biennial Convention (Part I)

The ASEAN Neurological Association (ASNA) was formed in 1994 and at that time consisted of five member countries; Indonesia, Malaysia, Philippines, Singapore and Thailand. Presently, there are 10 members consisting of the member nations of Association of South East Asian Nations (ASEAN). The main aim of the association was to bring together experts and clinicians involved in the care of neurology from the ASEAN regions to discuss and share their knowledge and research findings. It also provide good opportunities to collaborate and form friendships. The official journal of the ASNA is the Neurology Asia which is being published quarterly and is available online from the journal website (www.neurologyasia.com).

The first ASNA convention was held in Manila, Philippines in 1995. The convention has since been organized biennially with the second convention held in Singapore (1997), followed by Chaingmai Thailand (1999), Kuala Lumpur, Malaysia (2001), Cebu, Philippines (2003), Jakarta, Indonesia (2005), Cha-am, Thailand (2007), Kuala Lumpur (2009) and Bali, Indonesia (2011).

The 10th Convention, ASNA 2013 being held in Bandar Seri Begawan Brunei Darussalam consisted of two day plenary lectures and symposium. This was preceded by a day of workshop. This convention brought together experts from member nations and also from non member nations.

Research findings were also presented as posters in the poster sessions. For the full programme and the abstracts presented, please refer to the Brunei Int Med J. 2013; 9: Supplement 1 available from the journal website at www.bimjonline.com.

Pre-Convention Workshops
The Pre-Convention Workshop consisted of three separate workshops: Basic Neurosonology, Movement Disorders and Learning Headache for Better Care.

Neurosonology workshop: This workshop introduced the concept and use of ultrasound imaging (neurosonology) of the extra and intracranial structures. The use of neurosonology has been to assess the circulation and also anatomical structures of the brain, complementary to other imaging modalities. This workshop included a lecture on the physics of
ultrasonography, cerebrovascular anatomy and physiology (Tan KS, Malaysia), followed the role of extracranial ultrasound (Silanont Y, Thailand) giving insights into the normal and abnormal structures of the brain. Transcranial Doppler (Chang MH, Singapore), which is important for the assessment of vascular stenosis or flow abnormalities or effects of extracranial disease; important in evaluation of strokes. NV Ramani (Singapore) talk in more details the concept transcranial imaging (TCI) which uses the combination of B-mode and Doppler ultrasound to study intracranial vessels, instead of just using Doppler study. The indications are similar to Doppler study. This imaging uses the transtemporal (B-mode-butterfly shaped midbrain and colour Doppler - Circle of Willis), transforaminal (B-mode-foramen magnum and Doppler-vertebral and basilar circulations) and trans orbital windows. The advantages of TCI over transcranial Doppler are higher speed of study performance and greater accuracy of vessels identification. NV Ramani also talked about the artifacts and pitfalls (i.e. mistaking the jugular vein for the carotid arteries, missed hypoechoic plaques and assessment of severity of stenosis) encountered with the use of TCI. Kusuma Y (Indonesia) talked on advanced neurosonology techniques allows assessment of more complex areas such as emboli detection, shunts and cerebrovascular reserve (assess vasodilation and flow velocities in response to artificially increased in CO2 level that can be achieved through breath-holding). These techniques can be employed to detect emboli during procedures like cerebral angiography and carotid endarterectomy and assess recanalisation during thrombolysis for acute stroke. There was also demonstrations and hands-on sessions.

Movement Disorders Workshop: Prof. Lim SY (Malaysia) talked on the differential diagnosis of Parkinsonian disorder and how to assess and differentiate the various causes of parkinsonism that range from reversible causes (drug induced or metabolic cause such as Wilson’s disease), degenerative and progressive causes, that is also known as the Parkinson plus (multisystem atrophy, progressive supranuclear palsy [Steele Richardson syndrome], corticobasilar syndrome and spinocerebellar ataxia), lower-body parkinsonism caused by vascular lesions or normal pressure hydrocephalus and unusual causes of parkinsonism such as extra-pontine myelinolysis, abnormal iron accumulation in the brain or brain tumour. Miyasaki J (Canada) talked about the use of botulinum toxin in movement disorders and shared her wealth of experience in this field. Her talk covered how to locate sites and techniques of injection, indications, doses use and follow up. Practically any affected sites can be treated.

The movement disorder workshop was particularly interesting for the non-neurologists as many interesting videos of various movement disorders were shown. Seeing the disorders in dynamic images made non neurologists understand what neurologists are talking about when they described such cases.

Learning Headache for Better Care: The headache workshop started off with the ABC of headache presented by Macalintal-Canlas (Philippines). Headache is a common condition with one in 10 person being affected in their lifetime. Most headaches are trivial and do not require extensive investigations apart from good detailed history and examination. Patterns recognition is useful but one has to be aware the ‘red flags’ and also the unusual cases. Despite being trivial with minimal disability, some are bothersome and requires specialists consultations. It is particular important of have a good knowledge of the anatomy, pathophysiology, the role of environmental and genetic factors. The importance of the International Classification of Headache Disorders was discussed by Chankrachang (Thailand). The latest version of the classification, 3rd edition includes the primary headaches, the secondary headaches, cranial neuralgias, other facial pain and other headaches. The classification is particularly useful for uncertain cases. It is important to use and classify headaches correctly for communication and epidemiological purposes which allow comparisons between different countries. Hameed Nainar (Brunei Darussalam) spoke on the
primary headaches. Headaches are common encountered in the general and neurological practices. Common primary headaches include migraine, tension type headache (TTH) and cluster headaches. Despite being a common disorders, the true incidence of these disorders are under estimated as most are self managed through the use of over the counter analgesics. This talk focused on how to diagnose and manage these common disorders. This was followed by a talk on secondary headaches (Mexican JS, Malaysia). Secondary headaches are that are often without specific diagnostic features and the presence of another disorder known to be able to cause headache, headache that occurs in close temporal relation to the other disorder and/or there is other evidence of a causal relationship and headache that is greatly reduced or resolves within three months after successful treatment or spontaneous remission of the causative disorder having ruled out other causes. In evaluating secondary headaches, is particularly important not to miss any ‘Red Flag’ signs and symptoms. Often in these patients, primary causes have already been excluded and investigation need to rule out any space occupying lesions that can be neoplastic or non-neoplastic. It is also important to remember patients with primary headache can develop secondary headaches. The final talk of the Headache Workshop was on Trigeminal Autonomic Cephalalgias (TACs) by Tanprawate (Thailand). TACs are a group of primary headache disorders characterised by excruciating unilateral headache that is accompanied by cranial autonomic symptoms such as facial/forehead sweating, lacrimation, conjunctiva injection, nasal congestion, rhinorrhea and eyelid oedema. The prevalence of TACs is much lower in the Asia Pacific region compared to the West. TACs consist of Cluster headache, Paroxysmal hemicranias, Short-lasting Unilateral Neuralgiform headache attacks with Conjunctival injection and Tearing (SUNCT) and probable trigeminal autonomic cephalalgia (hemicranias continua). There are many characters that can differentiate these headaches. Cluster headache has a long duration of up to 180 minutes and has fewest attack frequency among the four. SUNCT has the shortest attack duration but a high frequency attack rate. Paroxysmal hemicranias has intermediate duration and intermediate attack rate whereas hemicrania continua has a continuous pain without remitting with occasional headache exacerbations. Other headache disorders that may present with similar symptoms. The speaker advised that all cases with TACs be evaluated with brain scan.

**Convention: Day 1**

The first day of the Convention started with a Plenary lecture on stroke by A/Prof Chang HM (Singapore) updating the audience on the Current management of stroke and recent advances. Stroke or cerebrovascular accident (CVA) is one of the most common causes of death. In ischaemic strokes, 80 to 90% are due to large and small vessel disease or cardiac sources. Hence, the main aim of treatment is to reestablish blood flow to the affected areas and to prevent further strokes. Reestablishing blood flow can be done through thrombolysis which can have immediate effects or antiplatelet agents, heparin or heparinoid agents with slower effects. Preventions are done through antiplatelet agents or anticoagulation to prevent clot formations, in addition to controlling other risk factors such as blood pressure and lipid control. Thrombolysis therapy requires strict criteria, typically related to time of stroke (within four hours of events) and the major risk of therapy is bleeding complications. Currently, still a very small proportion of patients with ischaemic stroke undergo thrombolysis, mainly as result of delayed presentations, a situation that is very true everywhere.

**SYMPOSIUM 1: Stroke**

The stroke symposium started with a talk on **Cardiac sources of stroke; How hard do we look?** by Tan KS (Malaysia). The answer is very as cardioembolic stroke can be prevented. Ischaemic stroke from cardioembolism accounts for 20-25% of all stroke subtypes and are usually severe and prone to early recurrence. Risk factors include atrial fibrillation (permanent or paroxysmal), structural abnormalities (i.e. patent foramen ovale, valvular disease) and complex aortic arch atheromatosis). The
young stroke was discussed by NV Ramani (Singapore); Managing the Young Stroke: forgotten issues. The definition for young stroke is still not universally defined but is taken as stroke occurring in a person aged younger than 55 years. Others use cut of <40, <45 and <50 years. Stroke under <45 accounts for over 1% of all strokes in the United States (1993-94) and is reported to be increasing to over 1.5% in 2005. The underlying aetiologies are similar to those seen in the elderly except for conditions like Moya Moya disease (primary or secondary), inherited conditions (mitochondrial disease, CADASIL or Fabry’s disease) and right to left cardiac shunting. The evaluations are similar to standard stroke evaluation with the inclusion of procoagulant screen. The major concerns with young stroke are the social issues; financial impact, poor return to work (~44% at 6-12 months), negative impacts on family relationships (5-54% deterioration, conflicts, separation and divorce), sexual relationship and leisure activities. Stroke in children is also a real problem, although less common. Often, they are not recognised and diagnosed early and once diagnosed, adult standards are used to care for such patients. Similarly, the negative impacts are tremendous to the affected families. The next talk on Thrombolysis in acute stroke (Yongchai, Thailand) reiterated in slightly more detail and complement the Plenary Lecture on the current management of stroke and recent advances. Currently, although promising, only a small number of patient fulfill the criteria for this treatment; delayed presentations, contraindications and unavailability of this treatment modality. The last talk of the symposium discussed on control of blood pressure (Blood pressure in stroke - How low do we go? (Yohanna K) (Indonesia). Blood pressure is often elevated in the acute phase due undiagnosed hypertension, stress of the events and also auto-regulation. Currently practice guideline presently recommend not to lower blood pressure routinely in acute stroke unless very high (≥200mmHg systolic) to not less than 180 mmHg. Untreated, there is the risk for haemorrhagic transformation, worsening of stroke oedema and hypertensive encephalopathy. On the other hand, lowering the blood pressure too low may lead to cerebral hypoperfusion and worsening of stroke. For those eligible for thrombolysis the blood pressure should be reduced to <180 mmHg systolic or <110 mmHg diastolic. There are studies that have shown benefits of lowering blood pressure in both the acute (INTERACT-2) and long-term (PROGRESS) setting in reduction of recurrence. However, the other risk factors also need to be addressed.

SYMPOSIUM 2: Neurology of Immunological and Systemic Disease

The first talk was on Iron and Neurological Disorders delivered by Abdullah MA (Brunei Darussalam). Iron is one of the many important mineral required for bodily functions, including the neurological system (i.e. aerobic metabolism, neurotransmitter synthesis and myelin production). However, unregulated, it is toxic and contributes to pathogenesis of many disorders. Excess iron accumulation facilitates free radical generation and leads to oxidative damage of the nervous system. Among the neurological system, abnormal iron accumulation can eventually lead to neurodegenerative diseases such as Parkinson’s disease, multi system atrophy, Huntington’s disease, Alzheimer’s disease and neuroferrinopathy (neurodegeneration with brain iron accumulation, NBIA such as panthothenate kinase-associated neurodegeneration [PKAN], previously known case Hallerverdon-Spatz disease). He also highlighted that patients with haematological disorders (thalasseamias) that are associated with iron overload are also at risk of neurological manifestations. Hopefully, in the future with better understanding and better and refined investigative tools such as neuroimaging, we may be able understand the pathogenesis, diagnose and monitor disease progression and treatment of these iron related disorders. The next speaker, Prayoonwiwat N (Thailand) talked about Update in Neuromyelitis Optica. Neuromyelitis optica (NMO), also known as Devic’s disease is an inflammatory demyelinating disorders of the central nervous system resulting optic neuritis and transverse myelitis. The clinical presentations are similar to multiple sclerosis. In
2004, the aquaporin-4 (AQP4) receptor IgG antibody was discovered. AQP4 is a water channel that regulate fluid distribution between the brain parenchyma, blood and cerebrospinal fluid (CSF). NMO is now categorised as an autoimmure disorder with primary involvement of the astrocytes rather than oligodendrocytes, as previous believed. A spectrum of NMO manifestations has been described and typical involvements are no longer restricted to the optic nerve and spinal cord. Other involvements also include medullary, particularly at the floor of the 4th ventricle, or periaqueduct or extending to the upper cervical level and hypothalamus. Prof Fong KY (Singapore) talked about Neuropsychiatric Lupus, still a bewildering condition to most clinicians. Systemic lupus erythematosus (SLE) affects practically any organs and often manifest as multiorgan involvement. Neuropsychiatric manifestations can be significant and range from psychoses, seizures to subtle abnormalities in neurocognitive functions such as memory or intellect deficits. Early diagnosis can be difficult and infections related to immunosuppression, primary lymphoma of the central nervous system, reactive depression or treatment related complications such as steroid psychosis need to be ruled out. There are also pathogenic autoantibodies among the many (>100) autoantibodies found in SLE, that targets neuronal tissues leading to neurological manifestations. Antibodies to triosephosphate isomerase isomerase (TPI) and N-methyl-D-aspartate (NMDA) receptor (NR2a or NR2b) were reported to be associated with neuropsychiatric lupus. He also touched upon the Brain Reactive Autoantibodies (BRAAs), which his group discovered which are significantly associated with psychosis and/or seizures in patients with SLE. The final talk of the symposium was on Autoimmune encephalitis by Abdullah S (Malaysia), a condition is not familiar to non-neurologists. Like any organ system, the brain is not immune to autoantibodies attack. Examples of autoimmune encephalitis include SLE, Rasmussen encephalitis, autoimmune limbic encephalitis and Hashimoto’s encephalitis. Autoantibodies involved with autoimmune encephalitis include voltage-gated potassium channel antibody, NMDA receptor antibody and antiglutamic acid decarboxylase (Anti-GAD) antibody. Manifestations can be inform of seizures (including status epilepticus) and sudden cognitive declines, and are often acute medical emergencies. In female patients presenting with acute neurological deteriorations, it is important to rule out the presence of ovarian teratoma, that is associated with NMDA encephalitis. These conditions can be treated with immunosuppression but diagnosis can be difficult and delayed.

**SYMPOSIUM 3: Paediatric Neurology**

This symposium started off with a talk on Movement Disorders in Children (Lee LV, Philippines). Again, like the other movement disorders talk, many videos were shown of the various movement disorders encountered in children. The video collection were from cases encountered at the Philippine Children’s Medical Centre over a 23 years period. Based on their database, movement disorders encountered as of 2011 were Subacute sclerosing panencephalitis (SSPE) 64%, Syndenham’s Chorea or St Vitus Dance of acute rheumatic fever (11%), Rett Syndrome (10%), followed by Tics and Tourette, Wilson’s disease, dystonia, EPS and PKD. The second talk was on Paediatric Stroke: An overview by Lai CO (Malaysia). Paediatric stroke is rare but a devastating condition that is often diagnosed late or remains undiagnosed and this can lead to significant morbidity and mortality. The presentation (especially in neonates and infants) unlike in adult is different and varied resulting in stroke not considered in the differential diagnoses. Haemorrhagic stroke is as common as ischaemic stroke. The underlying aetiologies are different to adult and children have multiple unique risk factors that need to be investigated. Due to rarity and scarce publications, the management of stroke in children is still largely based on experiences in adult. However, with the establishment of paediatric specific registries and trials, more current evidence base guidelines are being developed to determine the best practice to management stroke in children. Following this, Common and important Epilepsy syndromes in children were discussed (Chan WS, Singapore). Epilepsy and seizures are the most common problems encountered by a paediatric neu-
SYMPOSIUM 4: Neurological Training and Practice in ASEAN

This session started off with Prof Tan CT (Malaysia) highlighting the deficiency and misdistribution of available trained neurologists in the ASEAN region with ratio of 1:81,000 (neurologist: population) in Singapore to 1:5,900,000 in Lao. The average of trainee is between 30-36 years old and on completion have the opportunity to go to a Centre of excellence oversea under the sponsorship of the government. He highlighted that research is unfortunately a requirement in the current training programme. He believed that research is not just important but an essential part in the practice of neurology, even in developing countries with limited resources. What are written in text books or research findings reported from the West may not necessarily be applicable elsewhere. This is also true to all specialties. There may be differences in aetiologies, pathogenesis, manifestations and even in treatment outcomes. Therefore, it is very important for medical community to record and report findings and also to audit and evaluate the old and novel therapies to further knowledge and understanding of diseases in the local or regional contexts. These will also allow comparisons with findings from the other parts of the world. Training programmes should teach clinicians the skills of how to conduct proper research. However, given that most training programmes including Clinical neurology training are rather short, researching training should be based on the competency in basic clinical skills. This talk was followed by talks on Neurology training in Indonesia, Thailand and the Philippines.

Gunawan D (Indonesia) reported the existing training programme for neurology in Indonesia (Neurology Training and Practice in Indonesia). In a country with 17,000 island with ~240 million population, there are only 78 Medical Schools but only 13 have residency training in Neurology. Currently, there are more than 1,200 trained neurologists and ~ 600 in training giving a ratio of 1 neurologist per 200,000 population. To standardise training in the region due to disparities in facilities, he opined that a non-binding ASEAN Certificate Examination will be a good idea (such as the Asian Epilepsy Academy or EEG Certification Examination). A/Prof Prayoonwiwat (Thailand) touched briefly on the history of neurological practice in Thailand before talking on Neurology Training and Practice In Thailand. The neurological division was first established in Siriraj Hospital in 1945 and the first Neurology Hospital was opened in Thailand in 1955, followed by the establishment of the Neurological Society of Thailand in 1960. Neurology training started in 1969 with the first board certified neurologist graduating in 1971. Currently, there are 11 neurology training centres in Thailand, eight of which are situated in Bangkok. The training consist of one year in general medicine and two years in neurology (including outpatient and inpatient services and compulsory rotations in EEG,
Electrophysiology, psychiatry and neuropathology) followed by a three months elective period. Subspecialty training can be pursued after completion of the basic training. Prof Conde (Philippines) talked about the training programme in the Philippines (Neurological Training and Practice in the Philippines). This programme ensure trainees are competencies needed in basic neurology and is a 1-2 year programme. As in other programmes, there are certain requirement (i.e. number of hours, presentation, attendances and participations in grand rounds, CPC, Morbidity and Mortality conference, journal clubs etc.) that are mandatory; neuroanatomy, neurochemistry, neurophysiology, neuropharmacology, neuropathology and neuroradiology.

Plenary 2: Dementia

This plenary session entitled ‘Dementia Care in Asian Countries: Experiences in Japan’ by Homma A (Japan) provided insight dementia care in Japan. Dementia is a severe neurodegenerative disease with progressive cognitive decline (memory, attention, language, and problem solving) leading the sufferers being incapable to care for themselves from all aspects. Dementia incidence increases with age and this is seen in every nations. Alzheimer’s is the most common cause of dementia. Other causes include vascular dementia as part of strokes (multi-infarct dementia), frontotemporal dementia, semantic dementia and dementia with Lewy bodies. In Japan, knowledge and recognition of dementia among the public remains suboptimal but has improved in the last ten years after the implementation of the Long-Term Care Insurance (LTCI) and education of health professionals in particular the primary care physicians. However, there are still two major issues that need to be the addressed; i) recognition and diagnosis and ii) communications between primary care physicians and other health care professionals. Although recognition has improved, one fourth of families who noticed and recognised the symptoms of dementia in family members have not visited any medical facilities for diagnosis or treatment. The second issue he highlighted are problems with communications between primary care physicians and other healthcare professionals involved with care of patients with dementia. The ministry of Health, Labour and Welfare of Japan has started the model project to promote multidisciplinary approach to support persons with dementia. This was launched in 2009 aimed to improve the quality of life for people with dementia and their carers through greater understanding within society and improved services. It is also hoped that the project will promote and share the aims, skills and recognition of social resources among health professionals including primary care physicians.

NOTE: The second part of the Convention report will be published in the February 2014 issue of the Brunei International Medical Journal.