

Neurological letter from the People's Democratic Republic of Lao

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"For anyone wanting a view of Southeast Asia still relatively unscathed by the often abrasive side effects of 'development', Laos is a real find"

DSNA Pengiran Tengah and D Blackburn

Laos or Lao PDR is a land-locked country of approximately 5.5 million people, bordered by China, Vietnam, Cambodia and Thailand. Ethnically there are several tribal groups including the Brai, Katang, Khamu and Hmong. Laos is one of the poorest countries in Southeast Asia. The life expectancy is 59 for men and 61 for women and the infant mortality rate (<5 years old) is 70/1,000 live births.^{1, 2} Only one in seven people receive modern healthcare in part due to long long distances separating the rural population from health clinics and large numbers preferring traditional treatments.⁵ There are three public hospitals in the capital Vientiane: Mahosot, Mittaphab and Settathirat. Mahosot Hospital is the oldest hospital and is centrally located near the Mekong River. There has been a major push to improve healthcare including an increase in intake at the medical school in Vientiane to 700 from approximately 100 students per year.

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Teaching is mainly in Lao despite textbooks in Lao being scarce. Many also take English or French lessons as textbooks in these languages are easily available. Thai textbooks are also widely used. The medical school receives (financial and technical) support from Japan, Korea, France and Calgary Medical School, Canada. France has maintained a presence in Indochina with fellowships given mainly to Vietnamese and Cambodian but rarely to Lao doctors. The Institut de la Francophonie pour la Médecine Tropicale has an office in Vientiane, next to Mahosot Hospital and is linked to the Institut d'Epidémiologie Neurologique et de Neurologie Tropicale, Limoges, France. They have published on the prevalence of epilepsy (7.7/1,000 population) and found a treatment gap of 90%, with phenobarbitone available in only 55% of pharmacies in Vientiane.⁴ There are also widespread misconceptions and stigma to the diagnosis of epilepsy. Epilepsy is known as 'sak pa moo' or 'mad-pig-disease'. Drug compliance was low (21.6%) and mortality was high (11%) over a 2-year period, with deaths due to drowning, burns and falls.

We were able to establish links with the sole specialist neurologist in Lao PDR, Dr Ketmanee, via Professor CT Tan of the Department of Neurology, University of Malaya, Malaysia. The latter has been instrumental in the promotion of developing neurology training in the South Asia. We also met Dr Christine Johns, a US Board-certified internist and nephrologist, the residents' teaching coordinator for an American NGO called Health Frontiers. Health Frontiers has several projects globally but has been involved in Lao PDR for many years. It provides a partnership between the Faculty of Medical Sciences of the National University of Laos with Khon Kaen University, Thailand, and Case Western Reserve University, Ohio, USA.

Mahosot hospital is the main site for the three year resident teaching programme for physicians and paediatricians.³ Residents of all ages are selected from the provinces for training before returning to their local hospital or health centre. Before this, there was no formal post-graduate training. A Health Frontiers volunteer spends two years in Lao and helps coordinate Tuesday and Wednesday afternoons for all internal medicine residents in addition to providing clinical service where relevant. Residents from all three hospitals attend these lectures held at Mahosot hospital and are involved in case presentations. There is also regular teaching from Thai doctors from Khon Kaen University Hospital. Given the similarities of the Thai and Lao languages, communications and exchanges are easier. At the time of our stay, there were four doctors from Lao PDR studying in a fellowship programme at Khon Kaen University Hospital, but unfortunately none is studying neurology.

Neurology is based at Mittaphab ('Friendship') Hospital, a 150 bed hospital with general medical wards, an intensive care unit, a dialysis unit with five dialysis machines, a cardiology ward and outpatient clinics. Dr Ketmanee is based at Mittaphab on a unit that mainly sees internal medical cases. However, he is involved in both teaching neurology as well as seeing neurology cases from other wards. Difficult neurological cases

from the other two hospitals are also referred to him.

As August was the start of the rainy season, dengue accounted for the majority of the admissions. There were also many elderly diabetic patients with varying degrees of renal impairment. We encountered an interesting case of cerebellar syndrome in a patient recovering from dengue fever. Unfortunately, MRI scan is not available and patients have to travel to Thailand for this. We also reviewed stroke patients who are frequently admitted to the cardiology ward as this service is more advanced than that provided on the neurology wards. Stroke patients admitted to the intensive care unit frequently receive neuroprotective medications. It was gratifying to note that the neurologist was well aware that there is very little evidence for such agents but at the same time disheartening that he had little say in the matter when these drugs were prescribed by other physicians.

We taught medical students and residents at Mittaphab hospital every morning for three days and residents at Mahosot hospital. This included bedside neurological examination and lectures (status epilepticus, neuro-inflammatory conditions and neuro-anatomy) and MCQ questions. As most do not speak English, this presented a challenge. However the enthusiasm of the learners allowed us to overcome this. We also relied heavily on pictures and diagrams. Dr Ketmanee also translated for us during teaching. The language barrier prevents many from being able to take up the fellowship in neurology and neurophysiology offered at the University of Malaya, Kuala Lumpur, Malaysia.

On our last day, we visited Setthathirath hospital (30 minutes from the centre of Vientiane) where we were shown around by Dr Somchit who previously underwent a fellowship at the University of Malaya in neurology and neurophysiology. He also has a University appointment. We thoroughly enjoyed our experience and would highly recommend it. Neurologists keen to teach would find this not only rewarding but also extremely educational.