## CORRESPONDENCE

## Spectrum of neurological diseases in Thailand

Spectrum of neurological diseases is essential data for both academic institutions and government organizations. With the information, teaching, research and services can be effectively implemented. It is generally accepted that spectrum of any given disease varies from one geographical location to another. Under the collaboration of the World Federation of Neurology (WFN) Research group on Neurological Education and the Neurological Society of Thailand, we have previously reported a practice study of neurologists in Thailand.1 The advantage of such a study is that it is relatively easy to organize and requires little extra manpower or financial resources. However, as a basis to determine the pattern of neurology diseases in a geographical area, it is dependant on the referral habit, the way neurology is being practised in the particular area and may not correspond to the epidemiological data.2 It is also influenced by the patient's perception of illness and the help-seeking behaviour.

25 neurologists in different regions of Thailand were approached to complete a practice diary of all patient encounters during one specified week in December, 1989. neurologists fulfilled the criteria for data analysis. A total of 1700 patients were examined, 48.2% were male and 50.4% female; 57.5% were public patients, 40.7% were private patients; 65.2% were outpatient and 34.1% inpatients; 28.2% were new, 71.8% were old. The spectrum of neurological diseases is as shown in the figure. Cerebrovascular disease (CVD) was the most common neurological disorder encountered (38.4%), followed by headache (9.8%), epilepsy (9.5%) and polyneuropathy (4.6%). Multiple sclerosis on the other hand, was the disease least encountered (0.1%). Non-neurological disorder accounted for 16.8% of the patient encounters.

The spectrum of neurological diseases seen in Thailand is basically the same as a similar

study done in United Kingdom.3 The striking difference is the high percentage of CVD (38.4%) and low percentage of multiple sclerosis (0.1%) in the patient encounters for the neurologists in Thailand as compared to United Kingdom. CVD and multiple sclerosis each accounts for roughly 6% of the patient encounter for the neurologists in United Kingdom. The high patient encounters with CVD in Thailand is likely to be due to the readiness of Thai neurologists in caring for stroke patients; it is probably also a reflection of high incidence of the CVD in Thailand. Although the incidence of CVD is on a decline in developed countries, it remains the same or even on an increase in many of the poorer countries.4,5 The prevalence of multiple sclerosis is low in Orientals,6-9 probably due to racial and genetic factors.

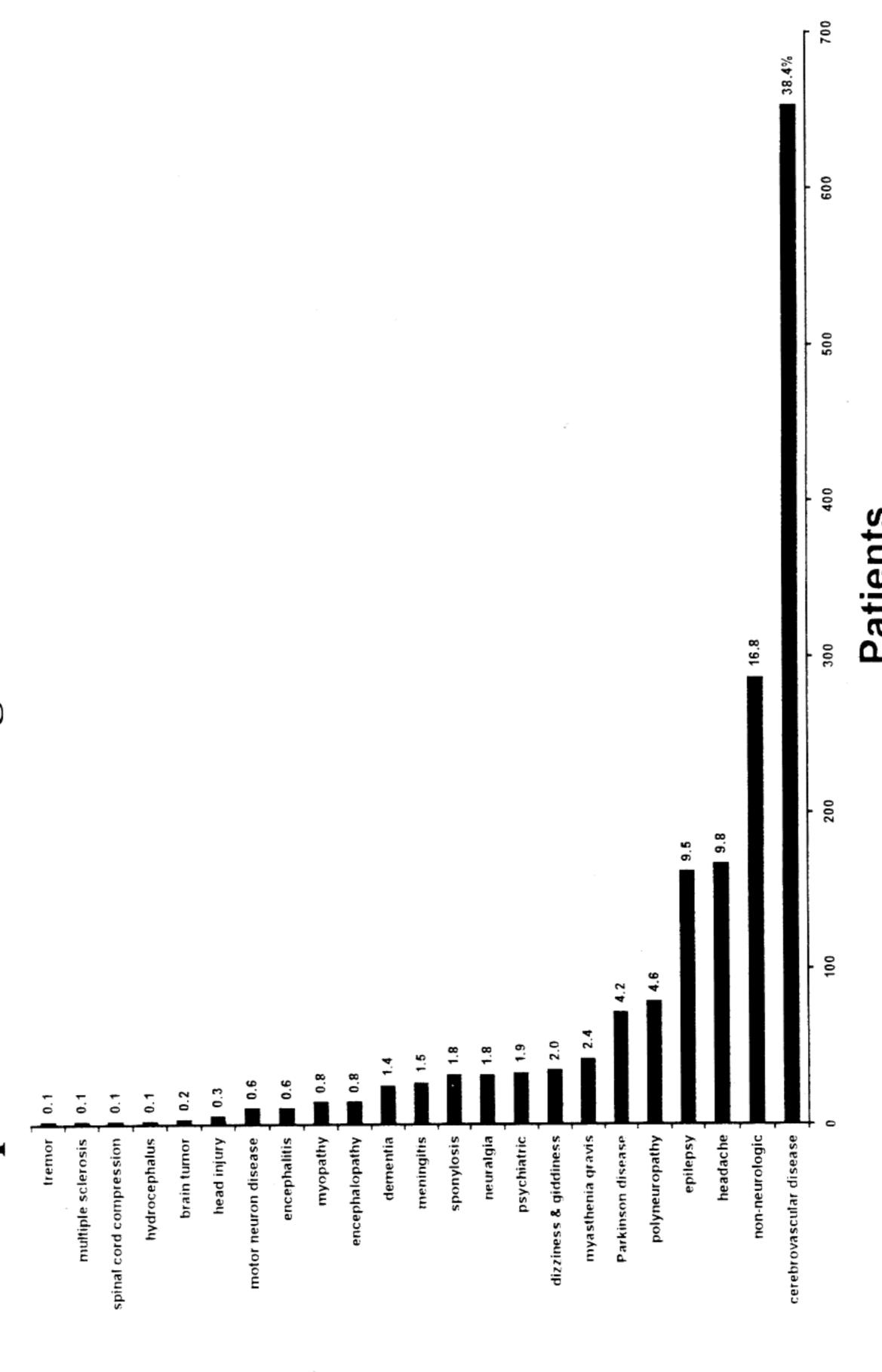
All neurologists who participated in the project were fully employed by the Thai Government. According to the Thai medical practice, a neurologist functions as an internist as well as a neurologist. In addition, they also function as general practitioners in their own private clinics outside government office hours. This explains why non-neurological cases accounted for 16.8% of the patient encounters.

The population of Thailand was 55.9 million with 75 qualified neurologists during the study in 1989. The current population is 60 million with more than 130 neurologists. Other than the recent increase in the number of AIDS-related problems, the spectrum of neurological disease and the pattern of neurology practice remains largely the same.

Prasert BOONGIRD MD, Suchat SORANASTAPORN MD, \*Mathew MENKEN MD FACP, Athasit VEJJAJIVA MB (Lond) FRCP

Department of Medicine, Mahidol University, Bangkok, Thailand. \*Department of Medicine and Neurology, Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey, New Jersey, USA

## Spectrum of Neurological Diseases in Thailand



## REFERENCES

- Boongird P, Soranastaporn S, Menken M, Vejjajiva A. The practice of neurology in Thailand: A different type of medical specialist. Arch Neurol 1993; 50: 311-2.
- Stevens D. Neurology in Gloucestershire: the clinical workload of an English neurologist. J Neurol Neurosurg Psychiatry 1989; 52: 439-46.
- Hopkins A, Menken M, DeFriese G. A record of patient encounters in neurological practice in the United Kingdom. J Neurol Neurosurg Psychiatry 1989; 52: 436-8.
- Broderick JP, Phillips SJ, Whisnant JP, O'Fallon WM, Bergstralh EJ. Incidence rate of stroke in the eighties: the end of the decline in stroke? Stroke 1989; 20: 577-82.
- Bonita R, Stewart A, Beaglehole R. International trends in stroke mortality: 1970-1985. Stroke 1990; 21: 989-92.
- Hou JB, Zhang ZX. Prevalence of multiple sclerosis: A door to door survey in Lan Cang La Hu Zu Autonomous County, Yannan Province of China. Neuroepidemiology 1992; 11:52.
- Kuroiwa Y, Shibashaki H, Ikeda M. Prevalence of multiple sclerosis and its north -to-south gradient in Japan. Neuroepidemiology 1983; 2: 62-9.
- Park CS. Multiple sclerosis in Korea. Neurology 1966; 16: 919-26.
- Tan CT. Multiple sclerosis in Malaysia. Arch neurol 1988; 45: 624-7.