

Thesis title	Efficacy and Safety of Gabapentin as an Add-on Therapy in Refractory Partial Epileptic Thai Patients
Name	Lek Rungreangyingyod
Degree	Master of Science in Pharmacy (Clinical Pharmacy)
Thesis Supervisory Committee	Chuthamane C. Suthisisang, Ph.D. (Pharmacology) Somchai Towanabut, M.D., F.R.C.P.
Date of Graduation	7 July B.E. 2540 (1997)

ABSTRACTS

Prevalence of refractory partial seizure was assessed by retro-prospective study at Prasat Neurological Institute. During retrospective phase, patients with refractory partial seizure were screened from 300,008 out patient department (OPD) charts. There were 48 cases out of 184 patients whose partial seizure could not be controlled by at least 2 conventional antiepileptic drugs (AEDs). These 48 subjects were recruited for physical examination and direct interview in order to find the factors which can contribute to the uncontrolled seizure. It was found that factors which aggravated seizure attacks were lack of AEDs blood level determination, lack of compliance, concomitant medications, improper drugs storage, and loss follow-up. After these risk factors were corrected by titrating AED blood level to the maximal tolerable dose and patient counseling, there were 10 cases who still had seizures. These 10 cases were classified as true refractory partial seizure. From this study, it was found that prevalence of refractory partial seizure at Prasat Neurological Institute was 3.3 cases per 1,000 seizure population.

The study on the efficacy of gabapentin as an add-on therapy was performed in these 10 refractory cases. This was an open-labeled step up dose of

gabapentin starting at 600 mg/day add-on to the previously prescribed conventional AEDs. In cases where seizures could not be controlled, gabapentin dose was increased by 300 mg per day every two weeks until the total dose of 3,000 mg was reached or the side effect was intolerable.

The result revealed that gabapentin reduced seizure frequency, duration and severity of seizure attacks and also improved patients' activities of daily living (ADL) even at the lowest dose of 600 mg. The optimum dose of gabapentin as an add-on therapy was in the range of 600 to 1,200 mg per day. Seven patients were seizure free at the end of the study. There were some precipitating factors that interfered with the efficacy of gabapentin in some patients such as stress, menstruation, fever, and alcohol intake.

Weight gain, somnolence, nystagmus, and dizziness were the major adverse events in these patients, whereas ataxia, tremor, and diplopia were found with gabapentin in a dose higher than 1,800 mg/day. These adverse events were mild and transient. No patient withdrew from the study due to adverse drug reactions. In addition, gabapentin did not alter conventional AED blood level and routine laboratory parameters.

In conclusion, gabapentin was effective and well tolerated as an add-on therapy in refractory partial epileptic Thai patients.