

Treatment of infantile spasms with vigabatrin: An 8-year experience in Thai children in a referral hospital

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Background and Objective: Infantile spasms is one of the intractable epileptic syndrome occurring in infants and children younger than 2 years which is refractory to most conventional antiepileptic drugs (AEDs).¹ ACTH and vigabatrin are the main medications for treatment of the seizure. However, the adverse effect of vigabatrin, which is permanent damage of visual fields, creates concern among pediatricians in deploying it as the first line. In Thailand, ACTH is not available. The objective of this study is to determine the outcomes of infants and children with the diagnosis of infantile spasms who were treated with vigabatrin

Methods: This was a retrospective review of the medical records of the patients who presented with infantile spasms and was treated with vigabatrin at Ramathibodi Hospital from January 1st1996 to December 31st2002. Data collected include the etiology, duration to cessation of infantile spasms, dosage of vigabatrin, concomitant AEDs, seizure recurrence, development outcome and ophthalmologic examination.

Results: During the period of study, there were 57 infants and children who had infantile spasms. Forty-six patients were treated with vigabatrin. The maximum doses ranged from 43 to 150 mg/kg/day (mean 112 mg/kg/day, median 120 mg/kg/day). Prior to the initiation of vigabatrin, 33 patients received other AEDs either with or without glucocorticoids. The ages of onset of infantile spasms ranged from 7 days to 19 months. Follow-up duration ranged from 1 month to 95 months (mean 53 months). Cessation of infantile spasms was obtained in 35 patients (76%). Among those who responded to vigabatrin, the median duration from the initiation of treatment to the cessation of spasms was 38 days. Nineteen patients (41%) were seizure-free till the date of this report. Ophthalmologic examination was conducted in 26 patients which revealed normal examination in 20 and cortical blindness in 6, which was unrelated to vigabatrin. Normal development was observed in 10 patients (21%).

Discussion and Conclusion: ACTH and corticosteroids has been the major drug for treatment of infantile spasms since 1958. Vigabatrin has been used as the first line drug in European countries since 1990.^{1,2} AEDs such as valproic acid, benzodiazepines, lamotrigine, and topiramate are also effective. This study demonstrates that early initiation of vigabatrin leads to satisfactory long-term outcome and seizure control, with 41% of the children seizure free, 21% with normal development, and no serious adverse effect. Thus, vigabatrin is effective for treatment of infantile spasms, and is an option in countries like Thailand where ACTH is not available.

References

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