Lamotrigine Therapy of Epilepsy with Angelman's Syndrome

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Abstract

Summary: *Purpose:* Angelman syndrome (AS) is a neurogenetic disorder characterized by developmental delay and a frequently refractory epileptic condition. Valproate, clonazepam and/or phenytoin are said to be the most effective antiepileptic drugs (AEDs) against the seizures in AS. Experience with the newer AEDs is very limited despite their better safety profile and tolerability. Considering its favorable side effect profile and its effectiveness against both partial and generalized seizures, we hypothesized that lamotrigine (LTG) might be more efficacious and better tolerated.

Methods: Potential patients for this retrospective study were identified from the epilepsy clinics at Notre-Dame, Sainte-Justine, and Yale New Haven hospitals. Patients were included in the study if they had AS along with refractory seizures. The medical record of each patient was reviewed with interest on seizure types, previous AEDs and response to LTG.

Results: Five patients (2M, 3F) were included in this study. Age at LTG ranged from 10 to 33 years old. All had ≥2 seizure types, mainly generalized tonic–clonic, myoclonic seizures, and atypical absences. Previously tried AEDs included valproic acid (5), benzodiazepines (5), phenytoin (4), carbamazepine (3), and topiramate (1). One patient had pancreatitis on phenytoin, one had worsened seizures on carbamazepine, and one developed hepatic encephalopathy on valproic acid. Three patients became seizure-free with LTG (9, 20, and 36 months FU), one was seizure-free for 1 year with subsequent

loss of efficacy, and one showed >50% reduction in myoclonic seizures (20 months FU). No side effects were reported.

Conclusion: LTG can be efficacious and well tolerated in patients with AS.