Prevalence of attention deficit hyperactivity disorder in children with epilepsy in a Thai Hospital

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Background:
Attention deficit hyperactivity disorder (ADHD) is a neurodevelopmental and behavioral disorder commonly prevalent in school-aged children. ADHD can be a comorbid diagnosis in those with epilepsy. However, the relationship between ADHD and epilepsy is complex and not entirely known.

Objectives:
To compare the prevalence of ADHD between children with epilepsy at Prapokklao Hospital and healthy children in Chantaburi province, Thailand.

Methods:
We recruited 73 children with epilepsy at Prapokklao Hospital and 73 age- and sex-matched healthy children at a local school in Chantaburi. The parents of all children rated their child’s behavior using ADHD rating scales. In those with higher scores, a child psychiatrist at Prapokklao Hospital then diagnosed ADHD based on the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5).

Results:
Children with epilepsy appeared to be from families with a lower socioeconomic status than their counterparts. Furthermore, those with epilepsy tended to have a greater probability of diagnosis with ADHD than healthy controls (19% versus 3%, $P < 0.001$). However, this finding was not significant after data were controlled for the socioeconomic status of the children.

Conclusions:
There was an interesting trend towards a greater probability of ADHD diagnosis in those children with epilepsy than in healthy children. As such, epilepsy may increase the risk of these children developing ADHD. To document the prevalence of ADHD in children with epilepsy and healthy controls, both groups of children should be matched not only based on age and sex, but also socioeconomic status.