

Childhood Epilepsy Tied to Psychiatric Problems

BY DIANA MAHONEY

BOSTON — An increased incidence of psychiatric and developmental comorbidities in children with a common form of childhood epilepsy might support the hypothesis that the benign epilepsies of childhood and epilepsy syndromes exist on a continuum, according to a retrospective study of EEGs.

In the study, children with benign focal epilepsy with centro-temporal spikes (BECTS)—the most common childhood epilepsy syndrome—had a higher incidence of psychiatric illnesses, attention-deficit/hyperactivity disorder (ADHD), and developmental delay than estimates from the general population, Dr. Shalaka Indulkar reported in a poster presentation at the annual meeting of the American Epilepsy Society.

The results of the study demonstrate the importance of screening children with benign focal epilepsy for psychological and other cognitive problems, Dr. Indulkar stressed. “Unfortunately, pediatric patients are not sufficiently screened for these problems; the nocturnal seizures are often missed, unless the child generalizes; and most institutions lack a good neuropsychiatry division to assess for learning difficulties. Subtle learning difficulties often go undetected.”

The investigators reviewed consecutive routine EEGs from 1995 through

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Major Finding: The prevalence of co-existing psychiatric problems was 9.4% among patients with epilepsy compared with the estimated 1%-4% prevalence of psychiatric problems seen in the general pediatric population.

Data Source: The investigators reviewed consecutive routine EEGs from 1995 through 2004 for pediatric patients with benign focal epileptiform discharges and identified 117 whose seizures were consistent with BECTS. They then compared comorbidity rates among those children with the general age-matched population.

Disclosures: The investigator reported no conflicts of interest with respect to her presentation and said that no specific funding was used to conduct the study.

2004 for pediatric patients with benign focal epileptiform discharges and identified 117 whose seizures were consistent with BECTS. These features included typical brief hemifacial seizures associated with speech arrest, drooling, and preservation of consciousness or gurgling or grunting noises with loss of consciousness and terminating in vomiting; or with nocturnal secondarily generalized seizures. They collected data on general demographics and neurologic, behavioral, and psychiatric disorders and used descriptive data and the Fisher’s exact test for analysis.

Of the 117 patients included in the final analysis, 51 were girls and 66 were boys, and the mean age at initial diagnosis of EEG abnormality was 6.8 years (6.2 years in girls and 7.0 years in boys), said Dr. Indulkar, a neurology resident

at the Cleveland Clinic.

The prevalence of co-existing psychiatric problems, including anxiety, schizophrenia, obsessive compulsive disorder, and depression in the study population was 9.4%, she reported, noting that this rate is substantially higher

than the estimated 1%-4% seen in the general pediatric population, she said.

ADHD was observed in 11% of the seizure population, compared with an

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estimated prevalence rate of 3%-7% among school-aged children in the United States.

Additionally, developmental delay, including pervasive developmental disorder, language disorder, and autism, was

found in 10.2% of the seizure population, and tics were noted in 5.1% of the population.

“Interestingly, we also found a high incidence of children with migraine and headaches in the study population,” Dr. Indulkar said.

Both psychiatric illness and developmental disorders were more common among boys in the study population than girls, she said.

The presence of epileptiform disturbances among children who have epilepsies of varying severity and learning, and other central nervous system-related comorbidities has led investigators to postulate that there is a link between the benign and more serious epilepsy syndromes.

However, “children with typical [BECTS] do not necessarily have abnormal EEGs in sleep, but they still may have learning difficulties, so the mechanism [for the CNS-related comorbidities] remains elusive,” Dr. Indulkar said in an interview.

She and her associates did not consider the influence of anti-seizure medications on children in this study, according to Dr. Indulkar. “Not all children with BECTS are treated, as most seizures are rare, occur nocturnally, and are self-limited, so it’s unlikely that medications alone could explain the cognitive problems.” ■

Look for Psychiatric Comorbidities in Epileptic Adults

BY DIANA MAHONEY

BOSTON — Certain central nervous system-related comorbidities occur significantly more often among people with self-reported epilepsy than in the general population, according to a large survey of U.S. households.

Individuals who reported ever having had epilepsy or a seizure disorder were more likely than those without a self-reported epilepsy diagnosis to have ever had depression, anxiety, bipolar disorder, attention-deficit/hyperactivity disorder, sleep disorder, or migraine—a finding that could be an important consideration in the clinical management of epilepsy, Ruth Ottman, Ph.D., reported at the annual meeting of the American Epilepsy Society.

Overall, 2% of 172,959 adults in the National Survey of Epilepsy, Comorbidities and Health Outcomes self-reported an epilepsy diagnosis.

Dr. Ottman, professor of epidemiology and neurology at Columbia University, New York, and her colleagues developed

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Major Finding: Particular CNS-related comorbidities are more prevalent in people with self-reported epilepsy than in people in the general population.

Data Source: A national survey of 172,959 adults.

Disclosures: The study was sponsored by Ortho-McNeil Janssen Scientific Affairs, LLC. Dr. Ottman reported no conflicts of interest.

the 11-item screening survey, which was mailed in 2008 to 340,000 households from two national panels selected to be representative of the U.S. population.

The investigators used propensity score matching to balance the epilepsy and non-epilepsy cohorts with respect to baseline characteristics, risk factors, and panel differences associated with epilepsy, including age, gender, income, population density, geographic region, severe head injury, stroke, and the main effect of panel and interaction terms.

To estimate the association of epilepsy with comorbidities, they calculated prevalence ratios using log-binomial generalized linear models, Dr.

Ottman explained.

Of the 3,488 people who reported having ever had epilepsy or a seizure disorder, 61% were female, the mean age was 48 years, 35% had a seizure or convulsion within the previous 12 months, and 27% reported having had a febrile seizure or convulsion as a child, Dr. Ottman said.

Using the propensity matched sample, the investigators determined that 33% of the epilepsy cohort reported ever having depression, compared with 26% of the nonepilepsy controls. Similarly, 22% of the epilepsy cohort vs. 14% of the controls reported a history of anxiety disorder; 14% vs. 7% reported a history of bipolar disorder; and 13% vs. 6% reported having previously been diagnosed with ADHD. Compared with the control group, patients in the epilepsy cohort more frequently reported sleep disorder (20% vs. 14%) or migraine (28% vs. 21%).

Although the survey did not collect information on specific medications, “it is possible that some of the comorbidity in our study could be related to medications,” Dr. Ottman said.

“However, for several of the comorbid disorders we described, other studies have found significantly increased occurrences even before the first seizure, suggesting that medications do not explain all of the comorbidity.”

Clinicians should be sensitive to patients’ reports of symptoms possibly reflecting other disorders, so they can consider medications that have been found to be effective in treating both epilepsy and some of the comorbid disorders.

For example, she said, “the prevalence of depression is higher in people with epilepsy than in people without it, even before the first seizure occurs, and this is also true for migraine.”

The precise mechanisms underlying the increased prevalence of certain CNS comorbidities has not been established, but one explanation might be “shared pathogenic mechanism underlying epilepsy and the other disorders, possibly due to shared genetic susceptibilities or to common environmental risk factors,” Dr. Ottman noted.

Clinicians should be aware of the potential for CNS-related comorbidities “so they can be

sensitive to patients’ reports of symptoms possibly reflecting other disorders and so they can consider medications that have been found to be effective in treating both epilepsy and some of the comorbid disorders,” Dr. Ottman said.

Comorbidities have been highlighted by the National Institute of Neurological Disorders and Stroke as a priority for epilepsy research “and we hope our research will increase awareness of comorbidities even further.” ■