

treated with AEDs. The majority of the patients had localization related epilepsy. A neuropsychological assessment scale (ABNAS) was completed by 170 newly treated patients with epilepsy followed prospectively for 12 months. The ABNAS is a validated brief scale of cognitive and behavioral function that correlates with scales for memory, anxiety, and depression levels. A higher score, reflecting greater neuropsychiatric symptomatology and potentially more widespread brain dysfunction, is associated with AED unresponsiveness. Of 138 with a drug response phenotype at 12 months, 45 nonresponsive patients (at least 1 seizure) had a higher pretreatment ABNAS score than 93 whose seizures were controlled ($p=0.007$). Patients with a low pretreatment ABNAS score (<15) were more likely to be pharmacoresponsive at 12 months than those with a high ABNAS score (>15) (72/100 [72%] vs 21/38 [55%], $p=0.049$). A higher risk of seizure recurrence was also associated with a lesion on MRI ($p=0.003$). For a AED pharmacoresponse, a multivariate model (ABNAS, MRI, and genotype profile classifier) had diagnostic values of 91% sensitivity, 64% specificity, 84% positive predictive, and 78% negative predictive values. The predictive value of the ABNAS score was also validated in a second prospective cohort of 74 newly treated patients with epilepsy ($p=0.005$). (Petrovski S, Szoeki CEI, Jones NC, et al. Neuropsychiatric symptomatology predicts seizure recurrence in newly treated patients. *Neurology* Sept 14, 2010;75:1015-1021). (Respond and reprints: Dr Terence J O'Brien, Department of Medicine, Royal Melbourne Hospital, University of Melbourne, Royal Parade, Parkville, 3050, Victoria, Australia. E-mail: obrientj@unimelb.edu.au).

COMMENT. A poor response to AEDs in newly diagnosed patients with epilepsy may be predicted by a high score on a pretreatment neuropsychological assessment scale, and MRI evidence of structural brain lesion and genomic factors also contribute to a multifactorial AED response phenotype. At least 30% to 40% of patients newly treated for seizures have further seizures despite appropriate AED therapy (Kwan P, Brodie MJ. *N Engl J Med* 2000;342:314-319; cited by authors). The above study, mainly in adults, mean age 39 years, demonstrates the importance of neuropsychological and genomic data in prediction of response of newly diagnosed epilepsy to AEDs. Neuropsychological testing and genomic typing are also assuming more prominent roles in the management of pediatric epilepsy. Of a total of 212 patients in the above study, 32 (15%) were children and adolescents, mean age 16, range 10-18 years. (per Dr Petrovski).

Partial epilepsy with antecedent febrile seizures plus (PEFS+). Genomic DNA from 4 patients with PEFS+ was screened for mutations in SCN1A, SCN2A, SCN1B, and GABRG2. Two heterozygous de novo mutations of SCN1A were detected that caused loss of function of Nav1.1, and were associated with seizure aggravation by AEDs. PEFS+ is similar to SMEI and GEFS+ clinically with sporadic onset and possible AED-induced seizure aggravation. Genotyping is helpful in the management of these epilepsies. (Liao W-P et al. *Epilepsia* Sept 2010;51(9):1669-1678).

PRADER-WILLI SYNDROME AND ATONIC SEIZURES

A 2.5-year-old boy with Prader-Willi syndrome and a history of neonatal superior sagittal sinus thrombosis developed a febrile seizure and new onset atonic drop seizures originating in the parasagittal region, as reported from Children's Hospital, Boston. A

video-EEG captured 11 electroclinical seizures associated with head drops and loss of postural tone. EEG showed seizure onset at Cz, followed by generalized bursts of slowing with embedded spikes. At 4 and 5 months after levetiracetam initiation and normalized EEG, he developed breakthrough seizures with a viral illness, controlled with increased dose. Video-EEG with EMG electrodes is recommended for Prader-Willi syndrome patients with drop seizures, to differentiate cataplexy from seizures. (Benson LA, Maski KP, Kothare SV, Bourgeois BF. New onset epilepsy in Prader-Willi syndrome: semiology and literature review. **Pediatr Neurol** Oct 2010;43:297-299). (Dr Benson, Dept Neurology, Children's Hospital Boston, Fegan 11, 300 Longwood Ave, Boston, MA 02115. E-mail: leslie.benson@childrens.harvard.edu).

COMMENT. Prader-Willi syndrome caused by absence of expression of the paternal active genes in chromosome 15q11-q13 is associated with seizures in 26% patients, whereas Angelman syndrome, caused by absence of expression of the same region, but from maternally inherited chromosome, is associated with seizures in 89% patients. Febrile seizures may occur in both syndromes, and in Prader-Willi patients, afebrile seizures are varied in type, mostly generalized tonic-clonic, less frequently absence, partial, myoclonic, and now, atonic. (Wang PJ et al, 2005; Kumada T et al, 2005; Fan Z et al, 2009; cited by authors).

ATTENTION DEFICIT DISORDERS

LONG-TERM PROSPECTIVE STUDY OF HEIGHT AND WEIGHT IN CHILDREN AND ADOLESCENTS WITH ADHD

The effects of attention-deficit/hyperactivity disorder (ADHD), gender and treatment on growth outcomes in children followed into adulthood were studied by researchers at Massachusetts General Hospital, Boston, MA. Of 140 with ADHD and 120 control boys recruited, 80% were reassessed at 10-year follow-up. A diagnosis of ADHD was not associated with height trajectories over time or growth outcomes. Stimulant treatment was not associated with differences in growth. Among subjects with ADHD, major depression was associated with significantly larger weight in females and smaller height in males. These results were not consistent with the Multimodal Treatment study showing height deficits in children with ADHD and prolonged medication treatment. (Biederman J, Spencer TJ, Monuteaux MC, Faraone SV. A naturalistic 10-year prospective study of height and weight in children with attention-deficit hyperactivity disorder grown up: sex and treatment effects. **Jrnl Pediatr** Oct 2010;157(4):635-640.e1). (Reprints: Dr Joseph Biederman, Massachusetts General Hospital, 55 Fruit Street, Warren 705, Boston, MA 02114).

COMMENT. Young adults diagnosed with ADHD and treated with psychostimulants in childhood show no evidence of an association of the diagnosis of ADHD or its treatment with deficits in growth outcomes at 10-year follow-up. Females with ADHD are at risk of weight gain and depression and in males with ADHD, short stature is associated with risk of depression.