

inflammatory signal, most prominently interleukin-6 (IL-6). Blood levels of CRP may be used as a biomarker for inflammation, cardiovascular disease, dementia, and some epilepsies. The more severe the seizure, the stronger the inflammatory response and the higher the CRP level after an acute seizure. Epileptic seizures provoke a production of cytokines such as IL-6 that may in turn cause an activation of the acute phase reaction and elevation of blood CRP. (Peltola J et al. Indicators of inflammation after recent tonic-clonic epileptic seizures correlate with plasma interleukin-6 levels. *Seizure* 2002 Jan;11(1):44-46).

CELIAC DISEASE AND INCREASED RISK OF EPILEPSY

Researchers at Orebro University Hospital, Orebro, and the Karolinska Institute, Stockholm, Sweden; and the Universities of Naples and Salerno, Italy examined the risk of developing epilepsy in a nationwide population-based sample of >28,000 patients with biopsy-verified celiac disease (CD). The absolute risk of future epilepsy in patients with CD was 92/100,000 person-years (excess risk = 27/100,000 person-years), and the risk was independent of age. The hazard ratio (HR) for having at least 2 interactions with health care due to epilepsy was 1.41. In those patients with epilepsy treated with AEDs, the increased risk of epilepsy was 1.43. (Ludvigsson JF, Zingone F, Tomson T, Ekholm A, Ciaccio C. Increased risk of epilepsy in biopsy-verified celiac disease: A population-based cohort study. *Neurology* 2012 May 1;78:1401-1407). (Respond: Dr Ludvigsson. E-mail: jonasludvigsson@yahoo.com).

COMMENT. Celiac disease carries a moderately increased risk of epilepsy, and patients with epilepsy are at increased risk of future CD. The increased risk of epilepsy is present both before and after CD diagnosis, indicative of shared risk factors and supportive of an immunological etiology for epilepsy. (Vezzani A et al. The role of inflammation in epilepsy. *Nat Rev Neurol* 2011;7;31-40).

LONG-TERM EFFECTIVENESS OF ETHOSUXIMIDE, VALPROIC ACID AND LAMOTRIGINE IN ABSENCE EPILEPSY

Researchers at Seoul National University Bundang and Children's Hospitals, Republic of Korea evaluated the long-term effectiveness and tolerability of ethosuximide (ESX), valproic acid (VPA), and lamotrigine (LTG) as initial monotherapies for patients with childhood absence epilepsy (CAE). CAE was diagnosed according to the criteria of Panayiotopoulos (2005) in a total of 128 patients, female preponderance 1.8:1, and mean age at onset of 6.5 years; 48 were assigned to the ESX group, 59 were treated with VPA and 21 with LTG. The mean follow-up duration was 3.4 years (range, 1-17 years). ESX and VPA starting dose was 10 mg/kg/day, and 1 mg/kg/day for LTG. The final maintenance doses were 23 mg/kg/day for ESX, 26 mg/kg/day for VPA, and 4.7 mg/kg/day for LTG. The seizure-free rate of ESX at 3 months was 84% and significantly higher than that of VPA (62%) and LTG (54%). At 6 months, the seizure-free rate of ESX (90%) was significantly higher than that of LTG (63%); the seizure-free rates of VPA and LTG groups at 6 months were not significantly different. After 9 months, there was no significant difference in seizure-free rates among the 3 drug groups, nor in rates

of normalization of the EEG at 12 months (ESX, 77%; VPA, 83%; and LTG, 64%), retention rate through the treatment period, and adverse-event rates (ESX, 25%; VPA, 29%; and LTG, 14%). Frequent causes of AED withdrawal because of adverse events were GI complaints for ESX (10%), GI complaints (5%) and alopecia (7%) for VPA, and rash for LTG (5%).

ESX, VPA and LTG are equally effective in the long-term treatment of newly diagnosed CAE patients. The onset of efficacy is faster for ESX compared with VPA or LTG. (Hwang H, Kim H, Kim SH, et al. Long-term effectiveness of ethosuximide, valproic acid, and lamotrigine in childhood absence epilepsy. **Brain Dev** 2012 May;34:344-348). (Respond: Dr Hee Hwang. E-mail: neuroandy@korea.com).

COMMENT. A previous double-blind, randomized, controlled clinical trial comparing the 3 drugs, ESX, VPA and LTG, found that ESX and VPA were more effective than LTG after 4-5 months of treatment. Attentional dysfunction was more common with VPA than with ethosuximide. (Glauser T et al. **N Engl J Med** 2010;362:790-799). The present study, extending the period of observation to 9 months, finds no significant difference in long-term effectiveness or adverse event rates of ESX, VPA and LTG. Apparently, contrary to earlier conclusions, “older (ESX) is not better!” (Vining EPG. **Pediatr Neurol Briefs** 2010 March;24(3):19).

YIELD OF ABNORMAL CT WITH FIRST COMPLEX FS

Physicians in Emergency Medicine, Pediatric Neurology, and Radiology at Children’s Hospital Boston, MA studied the risk of intracranial pathology requiring immediate intervention among patients presenting in the ED with a first complex febrile seizure (CFS). Of a total of 526 patients identified with a first CFS between 1995 and 2008, 268 (50.4%) had emergent head CT imaging. Four patients had a clinically significant finding: 2 had intracranial hemorrhage, 1 had ADEM, and 1 had focal cerebral edema. The risk of intracranial pathology was 4 (0.8%). Three of the 4 had other obvious findings: nystagmus, emesis, altered mental status, persistent hemiparesis, bruises suggestive of inflicted injury. Patients presenting with more than one seizure in 24 hours are at very low risk. (Kimia AA, Ben-Joseph E, Prabhu S, et al. Yield of emergent neuroimaging among children presenting with a first complex febrile seizure. **Pediatr Emerg Care** 2012 April;28(4):316-321). (Response and reprints: Amit A Kimia MD, Division of Emergency Medicine, Children’s Hospital Boston, 300 Longwood Ave, Boston, MA 02115. E-mail: amir.kimia@childrens.harvard.edu).

COMMENT. This study suggests that emergency neuroimaging may be unnecessary for children who present in the ED with a first CFS, uncomplicated by other acute signs of neuropathology. Focal and prolonged CFS may be more predictive of pathology than the multiple seizure type, especially when associated with prolonged postictal state.

In a retrospective study of 100 consecutive febrile seizure patient-visits to a university affiliated tertiary hospital, head CT was obtained in 18 patients at time of visit, with normal results in 17 (1 patient had mastoiditis). MRIs performed in 4 patients with CFS were normal. Of the 18 with CT scans, 4 had simple FS (5.8% of 77) and 14 had