PRES and risk of epilepsy. The incidence of subsequent epilepsy was 2.25 fold higher in patients with hypertensive encephalopathy (HE) than in controls, in a nationwide population-based study in Taiwan. The incidence of epilepsy was higher in men, younger patients with HE, and in those with brain disorders. (Chung TT, et al. **Epilepsy Behav** 2013 Nov;29(2):374-8).

SEIZURE DISORDERS

SCN1A AND SUSCEPTIBILITY TO MTL EPILEPSY, HIPPOCAMPAL SCLEROSIS AND FEBRILE SEIZURES

Investigators at the Department of Clinical and Experimental Epilepsy, Institute of Neurology, Queen Square, London, and other centers in the UK and Europe conducted a genome-wide association study in 1018 people with mesial temporal lobe epilepsy (MTLE) with hippocampal sclerosis and 7552 control subjects, with (n=757) and without (n=803) a history of febrile seizures. Meta-analysis revealed a genome-wide significant association for MTLE with hippocampal sclerosis with febrile seizures at the sodium channel gene cluster on chromosome 2q24.3. No genetic association with febrile seizures was found in a cohort of 172 individuals with febrile seizures who did not develop epilepsy during follow-up to age 13 years. The findings suggest SCN1A involvement and common genetic variation in the epilepsy syndrome of MTLE, hippocampal sclerosis with febrile seizures. (Kasperaviciute, D, Catarino CB, Matarin M, et al. Epilepsy, hippocampal sclerosis and febrile seizures linked by common genetic variation around SCN1A. **Brain** 2013 Oct;136(Pt 10):3140-50). (Response: Sanjay M Sisodiya PhD, FRCP. Department of Clinical and Experimental Epilepsy, UCL Institute of Neurology, 33 Queen Square London, WC1N 3BG, UK. E-mail: s.sisodiya@ucl.ac.uk).

COMMENT. In addition to MTLEHS + FS, genetically-determined, epilepsy syndromes in which febrile seizures are a prominent feature include Dravet syndrome, and genetic epilepsy with febrile seizures plus. The authors suggest that focusing on clinically recognized syndromes or constellations (Berg AT, et al. **Epilepsia** 2010 Apr;51(4):676-85) could reduce heterogeneity before genomic analyses and lead to discovery of more narrowly-defined syndromes. Genetic association studies should uncover the cause of some epilepsies and facilitate prevention or a cure.

TNK2 mutations in severe autosomal recessive infantile onset epilepsy with intellectual disability. The proband, a girl, presented at age 19 months with focal seizures resembling MTLE, and characterized by unresponsiveness, hypertonia, automatisms and secondary generalization. Seizures recurred several times a day and were refractory to medication. Birth and early development were normal, and cognitive regression with autistic features occurred soon after seizure onset. MRI was normal. Video-EEG recording and PET scan showed right anteromedial temporal lobe seizure onset, but temporal lobectomy at age 4.5 years failed to control seizures. The resected tissue showed no abnormality. Two younger brothers had a similar history to that of the proband. The cognitive regression with absence of myoclonus, normal MRI, and unremarkable interictal EEG distinguish this phenotype from known infantile onset

epileptic syndromes and encephalopathies. The phenotype in this small family is a consequence of a homozygous mutation in the TNK2 gene, resulting in a gain of function. (Hitomi Y, Heinzen EL, Donatello S, et al. **Ann Neurol** 2013 Sep;74(3):496-501).

SUBCLINICAL POSTTRAUMATIC SEIZURES DETECTED BY CONTINUOUS VIDEO-EEG MONITORING

Investigators at Mattel Children's Hospital, UCLA, and University of Colorado, used continuous video-EEG monitoring (cEEG) to study the incidence and risk factors for subclinical early posttraumatic seizures (EPTS) in 87 consecutive, unselected (mild – severe), acute traumatic brain injury (TBI) patients requiring admission to the PICU. Thirty-seven (42.5%) had seizures: subclinical in 16.1% (only subclinical in 6.9%), status epilepticus (SE) in 18.4%, and subclinical SE in 13.8%. Risk factors for subclinical seizures and SE included younger age, abusive head trauma, and intraaxial bleed. SE and subclinical SE were associated with increased hospital length of stay. cEEG monitoring significantly improves detection of seizures and is the only way to detect subclinical seizures (SE). (Arndt DH, Lerner JT, Matsumoto JH, et al. Subclinical early posttraumatic seizures detected by continuous EEG monitoring in a consecutive pediatric cohort. **Epilepsia** 2013 Oct;54(10):1780-8). (Response: Jason T Lerner, 10833 Le Conte, 22-474 MDCC, Los Angeles, CA 90095. E-mail: jlerner@mednet.ucla.edu).

COMMENT. Continuous EEG monitoring is recommended in young children with TBI, particularly in those with abusive head trauma and in those with intraaxial blood on CT. Rapid detection and treatment of EPTS may be of benefit in the immediate management of patients with TBI, but control of subclinical EPTS may not prevent occurrence of late posttraumatic epilepsy nor reflect long-term adverse effects of AEDs on the developing brain.

PROGNOSIS OF EPILEPSY

Investigators from the Institute of Neurology, Queen Square, London, UK, report results of longitudinal cohort studies of prognosis in epilepsy in adults and children and focus particularly on the National General Practice Study of Epilepsy (NGPSE) in 1195 patients initiated in 1983. Other longitudinal studies include the Mayo Clinic Record Linkage Study, the Tonbridge Study and the Study from Turku, confined to children and initiated in the 1970s. The findings are summarized as follows: 1) Epilepsy prognosis is frequently good, 65-85% cases entering long-term remission; 2) prognosis is better in newly diagnosed cases than in patients with chronic epilepsy; 3) early response to treatment is usually an indication of a good long-term prognosis; 4) the longer the remission, the less likely a subsequent recurrence; 5) the longer seizures recur, the poorer the long-term outlook; 6) delaying treatment, even for many years, does not worsen long-term prognosis; 7) continuous and burst patterns are more common than intermittent seizure patterns; 8) mortality may occur at any time in the course of epilepsy but is highest in the early years after diagnosis and is largely due to the underlying cause; 9) febrile seizure prognosis is generally good with ~6-7% developing late epilepsy (rate of