sweating, have no effect on heat production and temperature elevation. They begin to act when the fever has reached its highest point (Goodman and Gilman, 1955). In laboratory studies of antipyretic agents, aspirin and acetaminophen failed, whereas barbiturates were effective in retarding temperature elevation induced by radiotherm diathermy in animals. High doses of salicylates that cause hyperventilation and respiratory alkalosis lowered the threshold convulsive temperature and exacerbated the hyperthermia-induced seizure. (Millichap JG et al. **Neurology** 1960;10:575). The prevention of febrile seizures by anticonvulsant medications may be as much antipyretic as anticonvulsant effect. Future research in the development of more effective antipyretics should target heat production more than heat dissipation. The authors from Finland comment on the inhibition of different prostaglandins by antipyretics and the potential for different effects on seizure recurrence.

FEBRILE SEIZURES AND COGNITIVE OUTCOME

The association between febrile seizures and cognitive function in young adulthood was examined in a population-based study of Danish conscripts at Aarhus University Hospital, Denmark. Men with a history of epilepsy were excluded. Analysis of health-care databases found that 2.8% of 18,276 eligible conscripts had a record of hospitalization for febrile seizures. Prevalence of IQ scores in the bottom quartile (<37) was 25.3% and 27.6% for men with and without febrile seizures, respectively. Low IQ scores were slightly more prevalent in men born premature (30%), small for gestational age (32%), mother <20 years (36%), or parity >3 (33%). Adjusted prevalence ratios for having a group IQ score in the bottom quartile was 1.09 for men with febrile seizures and 1.08 for those without.. The prevalence ratios according to age at febrile seizure onset were 1.38 for 3 months to <1 yr; 0.98 for 1 to 2 years; and 1.14 for 3 to 5 years. Except for men whose febrile seizures occurred before age 1 year, there was little evidence of low cognitive function associated with a history of febrile seizures. (Noergaard M, Ehrenstein V, Mahon BE, Nielsen GL, Rothman KJ, Sorensen HT. Febrile seizures and cognitive function in young adult life: a prevalence study in Danish conscripts. **J Pediatr** Sept 2009;155:404-409). (Respond: Mette Noergaard MD PhD, Dept Clinical Epidemiology, Aarthus University Hospital, Sdr Skovve 15, DK-9000 Aalborg, Denmark. E-mail: m.noergaard@rn.dk).

COMMENT. Decreased cognitive function in young adults with a history of febrile seizures before age 1 yr is previously unreported. In another Danish study, children with a febrile seizure early (< 1 yr) or late (> 3 yr) had a higher rate of epilepsy compared to children with onset between 1 and 3 years (Vestergaard M et al. **Am J Epidemiol** 2007;165:911-918). Abnormal MRIs in 11.4% of children with first simple febrile seizures, reported in a NY-Presbyterian Hospital study, was also an unexpected finding, given the presumed benign nature of the febrile seizure. (Hesdorffer DC et al. **Epilepsia** 2008;49:765-771; **Ped Neur Briefs** June 2008;22:47-48). MRI is not usually recommended in children with simple febrile seizures, in accordance with AAP guidelines.

BULGING FONTANELLE AND NEED FOR LUMBAR PUNCTURE

Etiologies of bulging fontanelle and fever and clinical evidence for lumbar puncture were determined from medical records of 153 infants treated at Assaf Harofeh Medical

Center, Israel. Age range was 3-11 months (mean 5.6 mos). CSF pleocytosis occurred in 42 (27.3%), including 1 case of bacterial meningitis (0.6%). Other diagnoses were aseptic meningitis (26.7%), URI infection (18.3%), viral disease NOS (15.6%), roseola infantum (8.5%), and acute otitis media (6.5%). Appearance on admission was good to excellent in 113 (73.6%) infants, none of whom had bacterial meningitis. All infants who appeared well on admission had normal clinical, laboratory and imaging studies and non-bacterial disease. Observation and withholding of lumbar puncture are considered appropriate in febrile infants with bulging fontanelle who appear clinically well. (Shacham S, Kozer E, Bahat H, Mordish Y, Goldman M. Bulging fontanelle in febrile infants: is lumbar puncture mandatory? **Arch Dis Child** 2009;94:690-692). (Respond: Dr S Shacham. E-mail: shirashacham@gmail.com).

COMMENT. Bulging fontanelle and fever alone are not always sufficient indication for lumbar puncture. LP is mandatory if these signs are complicated by febrile seizure, toxemia, rash, nuchal rigidity or other signs of meningitis.

SEVERE, INFANTILE-ONSET SEIZURE PATTERN IN STURGE-WEBER SYNDROME

Researchers at the Hunter Nelson Sturge-Weber Center, Kennedy Krieger Institute, Baltimore, reviewed the records of 100 consecutive children and adults with confirmed Sturge-Weber syndrome (SWS) to determine the nature and prognosis of associated seizures. In 77 patients seen over a 5-year period, median age of seizure onset was 6 months, with 43 (56%) presenting <1 year of age. The port-wine birthmark was unilateral (left face) in 28 (36%), bilateral in 19 (25%), and right in 18 (23%). All patients had at least one complex partial seizure, 11 (14%) also had generalized seizures, including infantile spasms, atonic, and absence, as previously reported (Fukuyama et al, 1979). Thirty-five (45%) patients had clusters of seizures (multiple, recurring over a 24-h period or prolonged >30 min). Young age at seizure onset (<6 months) was associated with increased hemiparesis.

In 30 (39%) patients, a characteristic seizure pattern consisted of sporadic clustering of severe, infantile-onset seizures followed by prolonged seizure-free periods. The cluster pattern was not associated with a worse prognosis. Also, disability was not increased in patients with bihemispheric involvement. (Kossof EH, Ferenc L, Comi AM. An infantile-onset, severe, yet sporadic seizure pattern is common in Sturge-Weber syndrome. **Epilepsia** Sept 2009;50:2154-2157). (Respond: Eric H Kossoff MD, Suite 2158-200 North Wolfe Street, The Johns Hopkins Hospital, Baltimore, MD 21287, (E-mail: ekossoff@jhmi.edu).

COMMENT. The authors comment that this frequently occurring cluster pattern of seizures may cause confusion regarding optimal anticonvulsant therapy and timing of resective surgery. Since the seizure pattern is not accompanied by worsening of cognitive or motor function, chronic anticonvulsant therapy with potential cognitive side effects may be replaced by more frequent use of rescue benzodiazepine treatment at time of clusters, and surgery may be deferred.

GABA effects on excitability of SWS cortex. In contrast to previous data showing excitatory and proconvulsive actions of GABA in epilepsies, GABA had inhibitory and anticonvulsive effects on in vitro SWS pediatric cortex. (Tyzio R, Khlilov I, Represa A, et al. **Ann Neurol** Aug 2009;66:209-218). E-mail: khazipov@inmed.univ-mrs.fr.