Endocrinology and Diabetes, Schneider Children's Medical Center, and Tel Aviv University, Israel. Two groups of patients, 45 during long-term treatment with VPA and 43 before treatment was initiated, were compared. Treated postmenarcheal patients had a higher mean testosterone level than untreated controls (p=0.006). Body mass index-standard deviation scores were not increased. Rates of obesity were not significantly different in treated and untreated groups, 16.3% and 15.5%, respectively. Menses irregularities, hirsutism, and acne occurred with equal frequency in the 2 groups. The treated group had higher levels of thyroid-stimulating hormone and lower levels of free thyroxine than the untreated group, but both were within the normal range. (de Vries L, Karasik A, Landau Z et al. Endocrine effects of valproate in adolescent girls with epilepsy. **Epilepsia** March 2007;48:470-477). (Reprints: Dr H Goldberg-Stern, Epilepsy Center, Schneider Children's Medical Center of Israel, 14 Kaplan St, Petah Tiqwa, 49202 Israel).

COMMENT. Long-term treatment with valproate in girls with epilepsy results in increased testosterone levels after menarche, without signs of hyperandrogenism, polycystic ovary syndrome, or increase in body mass index. Endocrine function should still be monitored if valproate is prescribed for epilepsy in adolescent girls. Other studies have linked obesity, hyperinsulinemia, hyperandrogenism, and polycystic ovaries with long-term valproate therapy for epilepsy in women (Isojarvi JIT et al. **Ann Neurol** 1996;39:579-584). Epileptic and neurologic factors, and not valproate, have been cited as the primary cause of polycystic ovary syndrome (Hertzog AG. **Ann Neurol** 1996;39:559-560). Valproate should be avoided if possible in women of childbearing age and during pregnancy, given the high rate of associated fetal malformations, neonatal neurobehavioral and late neurological side effects (Koch S et al. **Acta Paediatr** 1996;84:739-746).

INFECTIOUS DISORDERS

NEUROLOGIC SEQUELAE OF ENTEROVIRUS 17 INFECTION

The long-term neurologic sequelae, neurodevelopment, and cognitive function of 142 children with a history of enterovirus (EV) 17 infection with CNS involvement were determined in a study at the National Taiwan University Hospital, Taipei; and Chang Gung Children's Hospital, Taoyuan, Taiwan. The median age of disease onset was 1.8 years (range 0.1 to 13.5), and age at time of assessment was 5.0 years (range 1.3 to 20.8). Sixty-one had aseptic meningitis, 53 had severe CNS involvement, and 28 had cardiopulmonary failure after the CNS involvement. Limb weakness and atrophy developed in 9 (56%) of 16 patients with a poliomyelitis-like syndrome, and in 1 (20%) of 5 with encephalomyelitis. Of the 28 with cardiopulmonary failure following CNS involvement, 18 (64%) had limb weakness and atrophy, 17 (61%) required tube feeding, and 16 (57%) required ventilator support. Children with the complication of cardiopulmonary failure had a significantly higher incidence of delayed neurodevelopment and lower IQ scores than children with CNS involvement alone. Scores on the Denver Development Screening Test for children 6 years of age or younger were delayed in 21 of 28 (75%) with cardiopulmonary failure cf to 1 of 20 (5%) with severe CNS involvement alone ((P<0.001); the mean full-scale IQ on the WISC Test for children 4 years of age or older was lower in patients with cardiopulmonary failure (P=0.003). (Chang L-Y, Huang L-M, Gau SS-F et al. Neurodevelopment and cognition in children after

enterovirus 71 infection. **N Engl J Med** March 22, 2007;356:1226-1234). (Reprints: Dr Chang, Department of Pediatrics, National Taiwan University Hospital, College of Medicine, National Taiwan University, No 7, Chung-Shan South Rd, Taipei, Taiwan).

COMMENT. Enterovirus, an RNA nonpoliovirus, causes significant and frequent illnesses in infants and children. Clinical manifestations of EV17 are protean and include hand-foot-and mouth disease, brainstem encephalitis and polio-like paralysis. Isolation of the virus in cell culture is the standard diagnostic method, and stool and throat specimens produce the highest yield (AAP Redbook, 27th ed, 2006). The above report shows that neurologic sequelae are frequent, especially in patients with cardiopulmonary failure. Behavior and learning problems present later on attending school, and 13% are diagnosed and treated for ADHD.

OPSOCLONUS-MYOCLONUS AND STREPTOCOCCAL INFECTION

A 9-year-old Nepalese boy living in the UK presented with opsoclonus-myoclonus syndrome associated with group A streptococcal infection, and is reported from St Mary's Hospital, London; and University of Southampton, UK. The onset was acute with headache, random eye movements, vomiting, dizziness, photophobia, and jerking of all four limbs. On examination, he had rapid, chaotic eye movements, myoclonus affecting limbs and head, and ataxia. He was empirically treated with ceftriaxone, acyclovir and azithromycin. Neuroblastoma was excluded. Bacterial cultures of blood, urine, and throat swab were negative. CSF contained 18 lymphocytes/ml and 0 neurophils, 0.26 g/L protein, and normal glucose and lactate. CSF culture, pcr, and viral antibodies were negative. Serum was negative for viral antibodies. Antistreptolysin 0 was 640 units/ml initially and 1600 units/ml at 4 months follow-up. Anti-DNase B was 2880 units/ml on day 1, 1920 u/ml on day 2, and 360 u/ml on day 22. After 2 weeks his eye movements, myoclonus and ataxia had improved. After 4 months he had recovered completely without sequelae. (Jones, CE, Smyth DPL, Faust SN. Opsoclonus-myoclonus syndrome associated with group A streptococcal infection. **Pediatr Infect Dis J** April 2007;26:358-359). (Respond: Dr Saul N Faust, Wellcome Trust Clinical Research Facility, University of Southampton, Mailpoint 218, C Level, West Wing, Southampton General Hospital, Tremona Rd, Southampton, SO16 6YD, UK).

COMMENT. Chorea, tics, and obsessive compulsive disorder (PANDAS) have been associated with streptococcal infections. Dyskinesias and associated psychiatric disorders following streptococcal infections are reported in 40 patients in the UK, and opsoclonus or myoclonus was present in 3 (Dale RC et al. **Arch Dis Child** 2004;89:604-610). Opsoclonus-myoclonus is parainfectious or a paraneoplastic disorder complicating neuroblastoma.

NEUROLOGIC FINDINGS IN SYDENHAM'S CHOREA

The relationship between cardiac and neurologic findings and long-term prognosis of 40 patients with Sydenham chorea were investigated at Istanbul University, Turkey. Patients were predominantly female (70%), and mean age was 11.3 +/- 2.5 years (range 4-16 yrs). Of 304 patients with rheumatic fever, 45 (14.8%) had chorea during the first attack. Duration of chorea was 5.3 +/- 3.1 months (range 1-12 months). Chorea was mild in 30 (75%), moderate