Infantile spasms, hypsarrhythmia, and mental retardation. Response to corticotropin and its relation to age and etiology in 21 patients. **JAMA** 1962;182:523-527).

The phenotypes of tuberous sclerosis patients with TSC1 and TSC2 mutations are compared in an editorial (Nass R, Crino PB. **Neurology** 2008;70:904-905). Cognitive impairments are more frequent in patients with TSC2 mutation, but are not always more severe than in those with a TSC1 mutation. Only the TSC2 group has a bimodal IQ distribution, with a lower peak around 50 and a higher peak around 80. TSC2 (tuberin) gene mutations generally produce more severe neurologic disease than TSC1 mutations. TBP may prove relevant to the autistic as well as general cognitive phenotype of tuberous sclerosis complex.

BEHAVIOR AND LANGUAGE DISORDERS

AUTISM AND HYDROXYGLUTARIC ACIDURIA

A 3-year-old boy with L-2-hydroxyglutaric aciduria (HGA) who demonstrated severe autistic symptoms is reported from Aristotle University of Thessaloniki, Greece; VU University, Amsterdam, the Netherlands; and University Hospital, Heidelberg, Germany. The child was seen at age 4 months because of macrocephaly, noted on in utero ultrasound. He was born with esophageal atresia. Neurologic examination revealed hypotonia, hyperreflexia, and psychomotor retardation. EEG and BAEPs were normal, whereas visual evoked potentials showed prolonged latencies. Brain MRI showed diffuse subcortical encephalopathy with increased signal of subcortical white matter. Metabolic leukodystrophy was suspected. Urinary organic acid analysis showed increased levels of L-2-HGA, and DNA analysis demonstrated 2 missense mutations in the gene L-2-HGDH encoding L-2-HG dehydrogenase. Motor development was moderately impaired, walking at age 19 months, whereas speech development was severely impaired, saying only single words at age 2 years and no phrases at 3 years. Stereotypies including arm flapping and finger wiggling began at age 12 months, repetitive behaviors and movements at age 2, and poor eye contact, aloofness, and absent communication by age 3 years. He reacted with tantrums to any change in his routine. The CARS score was 44/60, indicative of severe autism. Repeat MRI shows progression of white matter changes, and head circumference remains above the 97th percentile (54 cm). (Zafeiriou DI, Ververi A, Salomons GS et al. L-2-hydroxyglutaric aciduria presenting with severe autistic features. **Brain Dev** April 2008;30:305-307). (Respond: DI Zafeiriou. E-mail: jeff@med.auth.gr).

COMMENT. L-2-hydroxyglutaric aciduria is an autosomal recessive neurometabolic disorder characterized by psychomotor delay, ataxia, macrocephaly, and MRI changes of leukoencephalopathy. L2HGDH is the disease-causing gene that encodes L-2-HG dehydrogenase. The authors found no previous reference to autism as a feature of the L-2-HGA phenotype. Nonspecific MRI changes reported in autism include cerebellar vermal hypoplasia. (Courchesne E et al. **Neurology** 1994;44:214-223).