

VICI SYNDROME WITH SENSORINEURAL HEARING LOSS AND LARYNGOMALACIA

Researchers at Baskent University, Adana, and other centers in Turkey report a 3-month-old Turkish girl with Vici syndrome complicated by stridor and laryngomalacia. They also review the clinical features of 15 Vici syndrome patients published in the literature. The Turkish girl was the second child of consanguineous parents, she was admitted with bronchopneumonia, stridor, and failure to thrive, and examination revealed microcephaly, hypopigmentation of the skin, silvery hair, high-arched palate and micrognathia. Neurologic abnormalities included hypotonia, areflexia, cataracts, ocular albinism, and cranial MRI revealed agenesis of the corpus callosum, delayed myelination of cerebral white matter, and hypoplasia of the cerebellar hemisphere and brain stem. EEG showed paroxysmal, bifrontal discharges during sleep. Chest X-ray showed cardiomegaly, echocardiography demonstrated hypertrophic cardiomyopathy, and audiology exam revealed deafness in the left ear. The patient died of a recurrence of bronchopneumonia at 6 months of age.

Of the total 15 patients with Vici syndrome, 6 were girls and 9 boys, and 8 were siblings. Common manifestations include agenesis of the corpus callosum (100%), hypotonia (100%), developmental delay (100%), cerebellar and cortical defects (60%), cataracts (60%), seizures (60%), cardiomyopathy, hypopigmentation (albinism), recurrent infections, immunological abnormalities, and sensorineural hearing loss (20%). Vici syndrome should be considered in the differential diagnosis of an infant with agenesis of the corpus callosum. (Ozkale M, Erol I, Gumus A, Ozkale Y, Alehan F. Vici syndrome associated with sensorineural hearing loss and laryngomalacia. *Pediatr Neurol* 2012 Nov;47(5):375-8). (Respond: Dr Erol, Division of Neurology, Department of Pediatrics, Adana Teaching and Medical Research Center, Faculty of Medicine, Baskent University, Baraj Yolu 1 Durak, Seyhan 01120, Adana, Turkey. E-mail: ilknur_erol@yahoo.com).

COMMENT. Vici syndrome is a rare phenotypically heterogeneous, autosomal recessive disorder of unknown cause. Also called immunodeficiency with cleft lip/palate, cataract, hypopigmentation and absent corpus callosum. The diagnosis is based on a cluster of clinical symptoms and MRI evidence of structural cerebral defects, typically agenesis of the corpus callosum. The prognosis is poor because of immunological abnormalities and recurrent severe infections. (Vici CD, Sabetta G, Gambarara M, et al. Agenesis of the corpus callosum, combined immunodeficiency, bilateral cataract, and hypopigmentation in two brothers. *Am J Med Genet* 1988 Jan;29(1):1-8).

GROWTH FAILURE AND OUTCOME IN RETT SYNDROME

Researchers at the Miami Children's Hospital and other centers in the US studied growth patterns among children with Rett syndrome compared to unaffected children. Growth charts for classic and atypical Rett were created from 9,749 observations of 816 female subjects. Mean growth in classic Rett decreased below that for the normative population at 1 month for head circumference, 6 months for weight, and 17 months for length. Mean BMI was unchanged. Pubertal increases in height and weight were absent in classic Rett patients. Classic Rett was associated with more growth failure than

atypical Rett cases. In classic Rett, poor growth was associated with worse development, higher disease severity, and certain MECP2 mutations. (Tarquinio DC, Motil KJ, Hou W, et al. Growth failure and outcome in Rett syndrome. Specific growth references. **Neurology** 2012 Oct 16;79(16):1653-61). (Response and reprints: Dr Tarquinio; E-mail: danieltarq@aol.com).

COMMENT. More than 200 mutations identified in MECP2 are associated with growth velocity in Rett syndrome, and specific mutations are associated with developmental outcome. In a study of MECP2 mutations and clinical correlations in Greek children with Rett syndrome, mutations were detected in ~70% of classic and ~21% of variant Rett syndrome cases. MECP2-positive females had more problems in ambulation, muscle tone, tremor and ataxia, respiratory disturbances, head growth, hand use and stereotypies. (Psoni S, Sofocleous C, Traeger-Synodinos J, et al. **Brain Dev** 2012 Jun;34(6):487-95).

BRAIN TUMORS

ENDOCRINE SYMPTOMS IN HYPOTHALAMIC-PITUITARY TUMORS

Researchers at Universite Paris Descartes and other centers in Paris, France performed a retrospective, study of 176 patients (93 boys) aged 6 years (range 0.2-18 years) with hypothalamic-pituitary lesions to determine whether the time to diagnosis could be shortened by analyses of clinical and endocrine presenting symptoms. The lesions were craniopharyngioma in 56, optic pathway glioma (n=54), supracellar arachnoid cyst (25), hamartoma (22), germ cell tumor (12), and hypothalamic-pituitary astrocytoma (7). The most common presenting symptoms were neurologic (50%) and/or visual complaints (38%). Endocrine symptoms occurred alone in 28%. Precocious puberty triggered the diagnosis in 19% of 131 prepubertal patients, and occurred earlier in patients with hamartoma than those with optic glioma ($P<0.02$). Isolated diabetes insipidus led to diagnosis of all germ cell tumors. In 122 patients presenting with neuro-ophthalmic symptoms, the mean interval from symptom to diagnosis was 0.5 year, although 66% of patients had abnormal body mass index or growth velocity, which preceded the presenting symptom onset by 1.9 years ($P<0.0001$) and 1.4 years ($P<0.0001$), respectively. Among this subgroup of patients with neuro-ophthalmic presenting symptoms, endocrine symptoms were present before onset of presenting symptoms in two-thirds of cases. Obesity occurred prior to diagnosis in 41 (38%) of 108 patients evaluated for BMI. Abnormal BMI or BMI progression was observed in 67 (62%) patients at a median time of 2.5 years prior to diagnosis. The French guidelines for the management of obese children state that endocrine or brain tumor should be suspected in case of poor growth velocity with obesity, and the AAP recommendations state that an exogenous cause of obesity (e.g. tumor) can lead to poor linear growth. In the cohort studied, 71% maintained normal growth velocity after onset of the presenting symptom and up to diagnosis of tumor. The guidelines failed to identify 61% to 85% of obese patients with a hypothalamic-pituitary lesion. (Taylor M, Couto-Silva A-C, Adan L, et al. Hypothalamic-pituitary lesions in pediatric patients: Endocrine symptoms often