overexpress the heat shock protein. Approaches aimed at inducing HSP70 may lead to new therapeutic interventions in stroke. (Rajdev S et al. Ann Neurol June 2000;47:782-791).

HEMORRHAGES WITH VEIN OF GALEN MALFORMATIONS

Spontaneous intracranial hemorrhages associated with vein of Galen aneurysmal malformations (VGAMs) are reported in 3 children treated at the University of California at San Francisco, CA. Of 34 patients followed with VGAM, 8 (24%) had the mural-type of malformation, and 26 (76%) the choroidal type. Hemorrhages occurred in 2 (25%) of mural lesions and 1 (4%) of the choroidal malformations. Ages were 1 day, 4 weeks, and 5 months at the time of acute hemorrhage and referral for treatment. Endovascular surgery resulted in complete occlusion of the malformation and a satisfactory outcome. Post-surgical follow-up is recommended to identify patients who may develop intracranial venous hypertension. (Meyers PM, Halbach VV, Phatouros CP et al. Hemorrhagic complications in vein of Galen malformations. Ann Neurol June 2000;47:748-755). (Respond: Philip M Meyers MD, Neurovascular Medical Group, UCSF Medical Center, 505 Parnassus Ave, Room L352, San Francisco, CA 94123).

COMMENT. Vein of Galen aneurysmal malformation presents at birth or in infancy with congestive heart failure, seizures, macrocephaly, and developmental delay. Spontaneous intracranial hemorrhage may occur as an acute complication and should be treated by endovascular surgery and occlusion of the arterio-venous shunt.

CONGENITAL RECURRENT ARTERY OF HEUBNER INFARCTION

A newborn infant with congenital left upper-extremity athetosis, referred to the Montreal Children's Hospital, was diagnosed with infarction in the territory of the contralateral recurrent artery of Heubner. Cranial CT scan and MRI demonstrated involvement of the right caudate and lentiform (globus pallidus and putamen) nuclei. EEG showed a nonspecific dysrhythmia over the right hemisphere. Hematological studies were normal. Follow-up at 13 months showed athetosis of the left hand, minimal facial weakness, and a right hand preference. (Miller SP, O'Gorman AM, Shevell MI. Recurrent artery of Heubner infarction in infancy. Dev Med Child Neurol May 2000;42:344-346). (Respond: Michael I Shevell MD, Montreal Children's Hospital, Room A514, 2300 Tupper Street, Montreal, Quebec, H3H 1P3, Canada).

COMMENT. As originally described by Critchley M (1930) in adults, occlusion of the recurrent artery of Heubner (RAH) results in hemiparesis with faciobrachial predominance. In infants, athetotic monoplegia and minimal facial involvement may represent a specific stroke syndrome related to congenital infarction in the territory of the RAH. The prognosis of basal ganglia infarctions in childhood is generally favorable, except for the risk of persisting contralateral athetosis or dystonia. The RAH arises from the anterior cerebral artery, at the level of the anterior communicating artery. It supplies the head of the caudate, the anterior limb of the internal capsule, the anterior thalamus, the olfactory region, and hypothalamus.