VASCULAR DISORDERS

VASCULAR MALFORMATIONS AND INTRACTABLE EPILEPSY

A retrospective study of 20 consecutive patients with cerebral vascular malformations who were treated surgically for medically refractory partial epilepsy is reported from the Departments of Neurology and Neurologic Surgery, Mayo Clinic, Rochester, MN. MRI was more sensitive than CT and showed 36 vascular malformations (32 cavernous and 4 A-V malformations). Previous hemorrhage was verified in 18 patients. After complete resection of the lesion, 15 patients were free of seizures and 3 had a 90% control. Age of onset and duration of seizures did not affect outcome. A focal corticectomy in addition to lesionectomy was necessary in 11 patients with MRI-disclosed ipsilateral medial temporal lobe atrophy. (Dodick DW, Cascino GD, Meyer FB. Vascular malformations and intractable epilepsy: Outcome after surgical treatment. Mayo Clin Proc Aug 1994;69:741-745). (Reprints: Dr GD Cascino, Department of Neurology, Mayo Clinic, 200 First Street SW, Rochester, MN 55905).

COMMENT. The authors advocate early surgical intervention and excision of the lesion in patients with refractory partial seizures associated with vascular malformations. Corticectomy may be necessary in patients with dual temporal lobe pathologies.

SURGERY OF MOYAMOYA DISEASE

The manifestations of moyamoya disease in children and adults and the results of various surgical procedures are reviewed from the Department of Neurological Surgery and Section of Child and Adolescent Neurology, Mayo Clinic, Rochester, MN. Onset is in the first or the fourth decades of life. Of 518 patients registered in Japan, 155 were children <15 years, and 234 were adolescents or adults. In children, recurrent ischemic attacks (in 39%), strokes (in 39%), and seizures (14%) were the most common features, whereas in adults, hemorrhage (65%), and strokes (18%) were most frequent. Mortality was 7.5% for the total series; 10% for adults and 4.3% for children. Intracranial bleeding was the cause of death in 5 of 9 children (55%) and in 19 of 30 adults (63%). Of 27 children with only TIAs who were untreated, the TIAs gradually resolved but more than one-half showed cognitive impairment at 5 to 10 year follow-up. Ischemic symptoms diminished in 10 Mayo patients treated surgically at 13.5 years (mean age), using STA-MCA anastomosis (5), EDAS (2), and EDAS/EMS (3). Most published reports find surgical intervention of benefit in children but not in adults. (Ueki K, Meyer FB, Mellinger JF. Moyamoya disease: The disorder and surgical treatment. Mayo Clin Proc Aug 1994;69:749-757). (Reprints: Dr FB Meyer, Department of Neurologic Surgery, Mayo Clinic, 200 First Street SW, Rochester, MN 55905).

COMMENT. The natural history of moyamoya disease is characterized by neurologic deterioration, strokes and hemorrhage, seizures, and mental deterioration. Current evidence favors surgery to revascularize ischemic brain tissue by collateral pathways, especially in children with ischemic symptoms.

An 11 year-old girl with acute unilateral chorea as the presenting manifestation of moyamoya disease is reported from Hospital Plaza de Cruces, Vizcaya, Bilbao, Spain (Garaizar C, Prats JM et al. Acta