BRAIN NEOPLASMS

TREATMENT OUTCOME IN CHILDREN WITH ASTROCYTOMAS

Of 514 patients diagnosed with brain tumor between 1972 and 2003 at Hacettepe University, Ankara, Turkey, 98 had astrocytic tumors; 56% were grade I-II and 44% were grade III-IV. The age range was 1-16 years (median 9 years), and the male/female ratio 1.13. Tumors were supratentorial in 52%, infratentorial in 38%, and medullo-spinal in 10%. Chemotherapy was used in 47 patients. Overall survival (OS) rate was 59% at a median follow-up of 62 months. OS rates were 93% for grade I-II and 22% for grade III-IV astrocytomas; 77% for posterior fossa tumors, 48% for supratentorial, and 58% for spinal tumors. Gross total resection of grade III and IV tumors yielded longer survival times (p=0.003). Survival rate was not affected by resection of grade I and II tumors, and outcome was not related to age, or type of chemotherapeutic regimen. Postoperative radiotherapy was used in the majority of patients (84%) and its value could not be defined statistically. Low grade astrocytomas are highly responsive to surgery and do not require further treatment unless relapse occurs. (Varan A, Akyuz N, Atahan L et al. Astrocytic tumors in children: treatment results from a single institution. **Childs Nerv Syst** March 2007;23:315-319). (Respond: Dr A Varan, Department of Pediatric Oncology, Hacettepe University, 06100 Ankara, Turkey).

COMMENT. Surgery is the treatment of choice for grade I-II astrocytomas, and total resection is advised when possible. Chemotherapy is the treatment of choice in patients under 3 years of age and in relapsed grade I-II patients. Radiotherapy is of no benefit in patients with totally resected low-grade tumors.

NEONATAL SUBEPENDYMAL GIANT CELL ASTROCYTOMAS

An infant born with a large subependymal giant cell astrocytoma is reported and 11 cases in the literature are reviewed by researchers at Children's Hospital, Boston, MA. A 32-year-old woman was referred with an abnormal fetal ultrasound. The ultrasound at 18.7 weeks showed a septal cardiac mass. MRI of the fetal brain at 20.5 weeks gestation showed a mass in the right frontal region at the foramen of Monro. Fetal echocardiogram revealed 2 large intracardiac tumors. Born at 33 weeks gestation, Apgars were 5, 7, and 8, and the infant was intubated because of fetal distress. Skin examination showed 2 hypopigmented macules on the chin. Echocardiogram revealed global biventricular dysfunction, subvalvular aortic stenosis, and multiple large rhabdomyomata. MRI of the brain on day 4 showed multiple cortical tumors and subependymal nodules, and confirmed the right frontal mass diagnosed in utero. Continuous EEG showed electrographic seizures without clinical correlation. Family history for tuberous sclerosis was negative. The patient died at age 12 days. (Raju GP, Urion DK, Sahin M. Neonatal subependymal giant cell astrocytoma: new case and review of literature. **Pediatr Neurol** Feb 2007;36:128-131). (Respond: Mustafa Sahin MD, Department of Neurology, Children's Hospital, 300 Longwood Ave, Boston, MA 02115).

COMMENT. Subependymal giant cell astrocytoma, typical of tuberous sclerosis, is rare in the neonate.