Frequent recurrence and progression in pilocytic astrocytoma in adults.

BACKGROUND: Most pilocytic astrocytomas (piloA) are benign growths (World Health Organization [WHO] grade 1) of the deep midline structures, the brainstem, and the cerebellum. To the authors' knowledge, the literature contains only scarce data regarding piloA in adults.

METHODS: Between 1995 and 2005, 44 patients (26 women and 18 men) underwent surgery for a primary or recurrent piloA at the authors' institution. All patients were aged >16 years (mean +/- standard deviation: 31 +/- 14 years) at the time of their first surgery. The histopathologic diagnoses were reviewed, and relevant clinical information was obtained through a chart review and telephone interviews. The mean follow-up was 76 +/- 59 months (range, 1-227 months).

RESULTS: There were 20 patients (45%) with supratentorial lobar piloA (including 10 temporal/temporomesial tumors, 5 parietal tumors, 3 insular tumors, 1 frontal tumor, and 1 occipital tumors), 12 patients with cerebellar piloA, 7 patients with brainstem piloA, 2 patients with opticochiasmatic piloA, 1 patient with intramedullary piloA, and 2 patients with piloA of the basal ganglia. All but 1 patient with a lobar tumor presented with epilepsy. In 6 of 44 patients (14%), increased proliferative activity was revealed. WHO grade 3 primary anaplastic piloA was diagnosed in 2 patients (5%), and WHO grade 3 secondary anaplastic piloA was diagnosed in 4 patients (9%). Tumor recurrence or disease progression was observed in 13 of 44.
patients (30%). Eight of 44 patients (18%) died from their disease. Histologic grading and extent of surgical resection proved to be important predictors of survival. CONCLUSIONS: PiloA in adult patients, surprisingly, often was not a benign disease. The degree of surgical resection was found to be of major importance for the patient's further clinical course; therefore, an aggressive surgical resection should be attempted whenever possible.