Temporal mediobasal tumor

see also Limbic tumor.

Classification

see Schramm classification.

Approaches

Trans Middle Temporal Gyrus Approach

Paramedian supracerebellar transtentorial approach

Outcome

Two hundred and thirty-five patients with intra-axial TMB tumors (mean age, 35 yr) were collected during an 11-year period. The largest tumor groups were astrocytomas (38.0%), gangliogliomas (29.8%), dysembryoplastic neuroepithelial tumor (11.1%), and glioblastomas (11.1%).

The most frequent tumor location was the mesial Type A tumor (45.1%), with this type also showing the highest proportion of benign (World Health Organization Grades I and II) histological features (91.3%).

Of all tumors, 76.2% were benign. Larger tumor size was associated with higher frequency of malignant histopathological findings.

The leading symptom was epilepsy in 91% of patients, followed by drug-resistant epilepsy in 71.5%. Significant preoperative neurological deficits, such as hemiparesis or aphasia, were seen in 3.8% of the patients; another 12% had visual field deficits. Thirty-eight patients with low-grade tumors had undergone surgery previously. Several surgical approaches were chosen: transsylvian in 28%, anterior two-thirds temporal lobe resection in 23%, temporal pole resection in 15.3%, subtemporal in 19%, and transcortical in 6%. The most frequent neurological complications were transient: dysphasia (4.2%), hemiparesis (5%), and oculomotor disturbance (2.5%). Permanent nonvisual neurological complications occurred in fewer than 2% of the patients and significant new hemianopic defects were found in another 5.4% of the patients. The most severe complication was one intraoperative internal carotid artery lesion. One patient died.

These tumors can be operated on with a relative degree of safety for the patient, provided that the anatomy of the mesial temporal lobe and the variety of approaches are well known to the surgeon. However, because of the complex anatomic structures in the vicinity, transient neurological deterioration is not infrequent and certain neurological disturbances (e.g., quadrantanopia) even seem to be unavoidable, whereas permanent significant deficits are rare [1].

1)

Schramm J, Aliashkevich AF. Surgery for temporal mediobasal tumors: experience based on a series of 235 patients. Neurosurgery. 2007 Feb;60(2):285-94; discussion 294-5. PubMed PMID: 17290179.