Brainstem Gliomas: Surgical indications and technical considerations in a series of 58 cases.

Sinha S, Kale SS, Chandra SP, Suri A, Mehta VS, Sharma BS.
Department of Neurosurgery, All India Institute of Medical Sciences, New Delhi, India.

Abstract
Objectives. To analyze the indications of surgical treatment, surgical management strategies and post-surgical outcome in patients with brainstem glioma (BSG). Methods. In this retrospective study conducted from 1998 to 2012, 58 patients of surgically treated intrinsic BSG, meeting the inclusion criterion were enrolled. There were 40 males and 18 females, with age range varying from 3 to 55 years. The most common presentation was gait disturbances, either due to cerebellar involvement or motor weakness, followed by motor weakness, ocular involvement and headache. The posteriorly located tumors were operated by midline suboccipital approach (42 patients) and supracerebellar-infratentorial approach (4 patients). Posterolaterally located tumors were operated by retromastoid (10 patients) and all the ventrolateral tumors by subtemporal approach (4 patients). Results. Above 90% patients improved in their neurological status, while 5% deteriorated. Pilocytic astrocytoma was the most common histopathology (41.4%), followed by Grade II astrocytoma (34.5%) and Grade III astrocytoma (24.1%). Overall, 19% patients had postoperative complications and three patients (5%) died in the perioperative period. Conclusions. Surgery is advocated for patients with well delineated, posteriorly, posterolaterally and ventrolaterally located tumors having slow progression and relative preservation of motor power. BSG can have excellent surgical results with surgeon's experience and modern surgical facilities.

PMID: 24144170 [PubMed - as supplied by publisher]