Medial sphenoid wing meningioma

These meningiomas involve the region of the anterior clinoid, adjacent medial sphenoid wing, superior orbital fissure, and cavemous sinus. They may grow into the orbit. The tumor often encases the internal carotid and proximal middle and anterior cerebral arteries as well as the optic nerve and may compress or provoke edema in the temporal or frontal lobes.

Epidemiology

Meningiomas of the sphenoid wing make up approximately 15–20% of total cranial meningiomas. Types

Giant medial sphenoid meningioma.

Meningioma en plaque of the sphenoid ridge.

Anterior clinoid region meningioma

Treatment

see Medial sphenoid wing meningioma treatment.

Videos

Resection of medial sphenoid wing meningiomas poses surgical challenges because of the close contact with important cerebrovascular structures. The standard treatment for large tumors is microsurgical resection. Complete removal includes maximal resection of the dura and any involved bone, but this approach is not always feasible when the tumor encases the arteries or cranial nerves. In these cases, there is evidence that a more conservative resection followed by radiation treatment can reduce operative morbidity with acceptable tumor control rates. In this 3-dimensional video (http://www.youtube.com/watch?v=owNVp-x_xOQ), the authors demonstrate their preferred technical nuances to resect a large middle to medial sphenoid wing meningioma.

Case series

1975

A procedure employed in removing meningiomas of the ala parva and of meningiomas affecting simultaneously ala parva and ala magna is described. Materials derived from operative interventions in 78 patients are studied. The application of the microsurgical technique in separating meningiomas from basilar arteries made it possible to improve the effectiveness of operative interventions. The overall post operative lethality comprised 24.3 per cent.

Case reports

1989

Gum and Frueh report a case of unilateral exophthalmos and compressive optic neuropathy due to
sphenoid ridge meningioma. The patient underwent transantral orbital decompression with removal of the orbital floor and medial wall that resulted in rapid, dramatic normalization of both visual acuity and visual field in the involved eye. Due to the slow-growing, noninfiltrative nature of meningiomas, we propose this procedure as an alternative, initial, palliative treatment for selected cases of compressive optic neuropathy due to meningioma compressing the posterior orbit. This procedure can provide restoration of visual function with less risk to the patient than neurosurgical resection.

1971

Total removal of large global meningiomas at the medial aspect of the sphenoid ridge. Technical note.


