

Internal auditory canal cavernous hemangioma

[Internal auditory canal cavernous hemangioma](#) is an extremely rare type of tumor.

Only 65 cases of cavernomas in this location have been previously reported.

Case series

A study included 6 patients with cavernous hemangioma of the IAC. All patients presented with [sensorineural hearing loss](#) and [tinnitus](#), and 2 also suffered from [vertigo](#). Five patients reported a history of [hemifacial spasm](#) or [facial palsy](#): 3 had progressive facial weakness, 1 had a hemispasm, and 1 had a history of recovery from sudden facial paresis. All patients underwent CT and MRI to rule out intracanalicular [vestibular schwannomas](#) and facial nerve neuromas. Five patients had their tumors surgically removed, while 1 patient, who did not have facial problems, was followed up with a wait-and-scan approach.

All patients had a presurgical diagnosis of cavernous hemangioma of the IAC, which was confirmed pathologically in the 5 patients who underwent surgical removal of the tumor. The [translabyrinthine approach](#) was used to remove the tumor in 4 patients, while the [middle cranial fossa approach](#) was used in the 1 patient who still had functional hearing. Tumors adhered to cranial nerves VII and/or VIII and were difficult to dissect from nerve sheaths during surgeries. Complete hearing loss occurred in all 5 patients. In 3 patients, the facial nerve could not be separated from the tumor, and primary end-to-end anastomosis was performed. Intact facial nerve preservation was achieved in 2 patients. Patients were followed up for at least 1 year after treatment, and MRI showed no evidence of tumor regrowth. All patients experienced some level of recovery in facial nerve function.

Cavernous hemangioma of the IAC can be diagnosed preoperatively through analysis of clinical features and [neuroimaging](#). Early surgical intervention may preserve the functional integrity of the facial nerve and provide a better outcome after nerve reconstruction. However, preservation of functional hearing may not be achieved, even with the retrosigmoid or middle cranial fossa approaches. The translabyrinthine approach seems to be the most appropriate approach overall, as the facial nerve can be easily located and reconstructed ¹⁾.

Case reports

2016

A 22-year-old woman surgically treated for a cavernous hemangioma in the left internal auditory canal, mimicking on preoperative magnetic resonance imaging MRI an acoustic neuroma. Neurological symptoms were hypoacusia and dizziness. The cavernous angioma encased the seventh and, partially, the eighth cranial nerve complex. A “nearly total” removal was performed, leaving a thin residual of malformation adherent to the facial nerve. Postoperative period was uneventful; hearing was unchanged, but the patient had a moderate inferior left facial palsy (House-Brackmann grade II) slightly improved during the following weeks. On the basis of the observation of this uncommon case, we propose a revision of the literature and discuss clinical features, differential diagnosis, and treatment ²⁾.

1)
Zhu WD, Huang Q, Li XY, Chen HS, Wang ZY, Wu H. Diagnosis and treatment of cavernous hemangioma of the internal auditory canal. J Neurosurg. 2016 Mar;124(3):639-46. doi: 10.3171/2015.3.JNS142785. Epub 2015 Sep 25. PubMed PMID: 26406793.

2)
Mastronardi L, Carpineta E, Cacciotti G, Di Scipio E, Roperto R. Cavernous hemangioma of the internal auditory canal encasing the VII and VIII cranial nerve complex: case report and review of the literature. Neurosurg Rev. 2016 Feb 15. [Epub ahead of print] PubMed PMID: 26876892.

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