

Osteoma Of Surgical Mastoid Cavity –A Case Report

S Gulati, Anshu, R Wadhwa

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Abstract

Osteoma of temporal bone predominantly arises from external auditory meatus followed by mastoid and temporal squames. They usually present as cosmetic deformity or are incidental findings on radiological investigation. Surgical excision is the treatment of choice. A case of osteoma, developing in mastoid cavity is being reported for the first time from India.

INTRODUCTION

The osteoma of temporal bone is a rare neoplasm. The most common location of osteoma in the temporal bone is external auditory meatus but these are anatomically distinct from extra canalicular osteomas which are exceedingly rare growths. Here we report a case of osteoma presenting with unilateral ear discharge and hearing loss developing in an operated mastoid cavity.

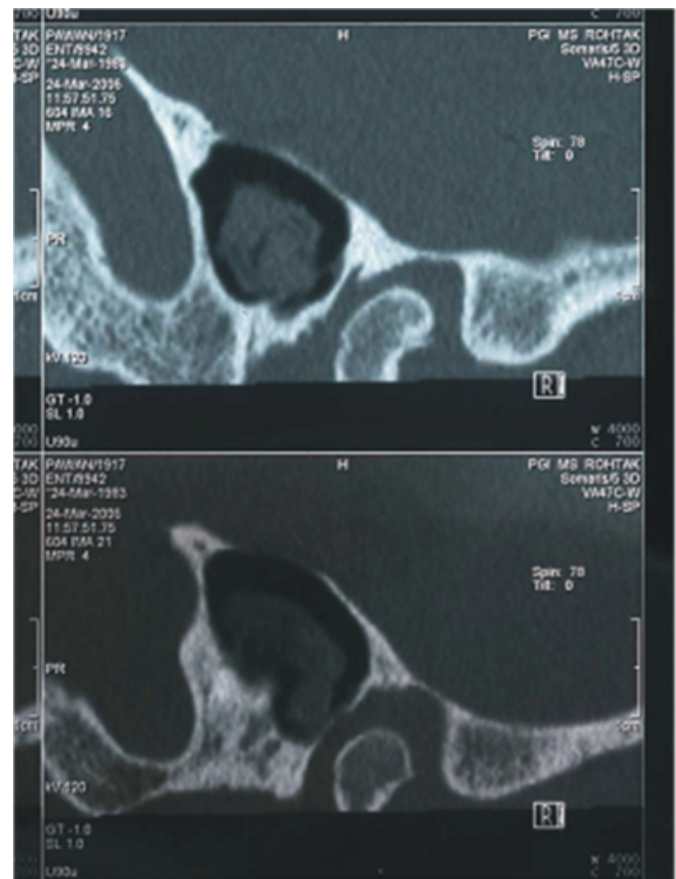
CASE REPORT

A 35 year old female presented to the outpatient department of Otorhinolaryngology at Pt. B.D. Sharma University of Medical Sciences, Rohtak, Haryana, a state in northern part of India, with complaints of, 1) on & off ear discharge, and, 2) hearing loss in the right ear since childhood. She gave a history of undergoing mastoidectomy with tympanoplasty 10 years back but the discharge from ear and hearing loss was still persisting. On examination a post auricular scar was present. Foul smelling discharge was present in external auditory canal and meatoplasty was blocked. Tympanic membrane showed subtotal perforation. Left ear was normal. Pure tone audiometry revealed a conductive hearing loss of 40 dB in the right ear of the patient. CT scan revealed a hyperdense shadow/mass arising from sigmoid plate and growing into the mastoid cavity. The patient was taken up for revision mastoidectomy. The mastoid was exposed via post auricular approach and a bony hard mass was seen arising from sigmoid plate, growing into the mastoid cavity. The mass was drilled out and was sent for histopathological examination. The cavity was cleaned and grafting and meatoplasty was done. The postoperative period was uneventful. Histopathological examination of excised mass revealed typical features of osteoma. On follow up

examination, after six months, the patient was completely asymptomatic.

Figure 1

Figure 1: Pre-operative CT scan showing hyperdense mass in the mastoid cavity.



DISCUSSION

Osteomas are benign slow growing osseous neoplasms consisting entirely of well differentiated bone that occur

almost exclusively in the craniofacial region. Cranial osteomas are of 4 types – intraparenchymal, dural, at the skull base and in the skull vault. Out of these, intraparenchymal osteomas are the rarest.² Skull base osteomas are most commonly located in fronto-ethmoid region but rarely may arise from temporal bone. The predominant location in the temporal bone is the external auditory meatus followed by mastoid and temporal squames. They may rarely arise from internal auditory meatus and middle ear. Few cases of osteoma, arising from lateral semicircular canal have also been reported.^{3,4} The osteoma arising in post operative mastoid cavity has never been reported to the best of our knowledge in English literature.

Osteoma can develop in response to irritants, including trauma-induced periosteitis and chronic infection, which can trigger tumor growth.⁵ Some local growth factors are also implicated in its development. In the present case, osteoma originated from sinus plate in the postoperative mastoid cavity. Thus, the possible etiology could be surgery induced periosteitis.

Osteomas are slow growing tumors. Clinically, osteoma of mastoid cavity is asymptomatic and may be silent for years. They are diagnosed only when osteoma becomes large

enough to be seen clinically or they may be picked up incidentally during radiological investigation. Osteomas of mastoid bone or squamous part of temporal bone may also cause cosmetic deformity. In suspected cases, patient must be subjected to CT scan imaging in which it appears as a well demarcated dense outgrowth. In symptomatic cases, surgical resection of osteoma is usually indicated. Osteoma should be fully excised until underlying normal bone is exposed.

CORRESPONDENCE TO

Dr. Anshu, H.No. 99, Sector- 14, Rohtak-124001. (Haryana) INDIA. E-mail ID: drantarikshdeep@hotmail.com Phone no: +91-9315328727

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Author Information

S.P. Gulati, M.S.

Department of Otorhinolaryngology, Pt. B.D. Sharma, PGIMS

Anshu, M.S.

Department of Otorhinolaryngology, Pt. B.D. Sharma, PGIMS

Raman Wadhera, M.S.

Department of Otorhinolaryngology, Pt. B.D. Sharma, PGIMS