ORIGINAL RESEARCH PAPER

Volume-8 | Issue-6 | June-2019 | PRINT ISSN No. 2277 - 8179

INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

TEMPORAL BONE OSTEOMA – A CASE REPORT

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ABSTRACT

Temporal bone osteomas are relatively rare entity which has incidence rate of 0.1% - 1% of all benign tumours of skull. It is a slowly growing benign tumor of temporal bone. We report a rare case of mastoid osteoma. A 26 years old male patient presented to us with right post auricular bony swelling of approximately 4 cm. Diagnosis of temporal bone osteoma was made after proper investigations like histopathology and High Resolution Computed Tomography (HRCT) temporal bone. Complete excision was done with good cosmetic outcome.

KEYWORDS

osteoma, cosmetic deformity, benign tumor

CASE REPORT

A 26 year old male came to Outpatient Department of our hospital with the chief complaint of hard swelling in right post auricular region for 3-4 years which was progressively increasing in size. He had no pain or other symptoms related to swelling except for cosmetic deformity. On examination, there was a single round shaped swelling with smooth margin of size around 5*3 cm at right post auricular region[Fig.1]. Swelling was bony hard in consistency, covered with skin, non-tender and its base fixed to underlying bone. Surrounding area was devoid of any sinus or fistula. No significant past history of trauma or infection. Otoscopic finding suggestive normal ear drums and audiometric examination was normal.

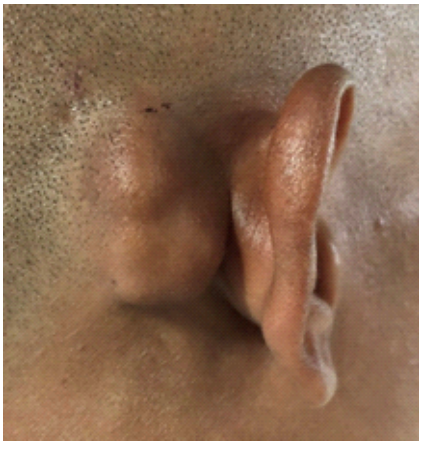

FIG.1 RIGHT POST AURAL MASS

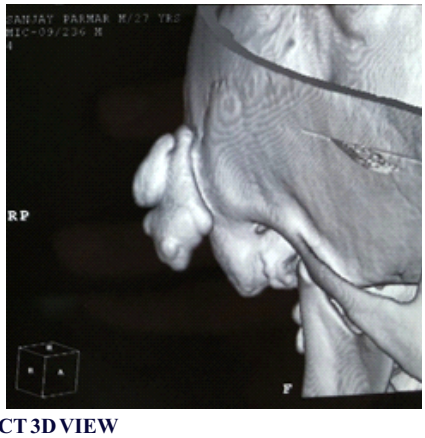

FIG.2 HRCT 3D VIEW

HRCT scan of the temporal bone shows exophytic osseous mass in right post auricular region arising from right mastoid bonefig.2 and 3. The middle ear cavity along with ossicular chain and inner table of skull plus diploe were normal. There were no intracranial extension. On the basis of above findings, a provisional diagnosis of mastoid osteoma was made.

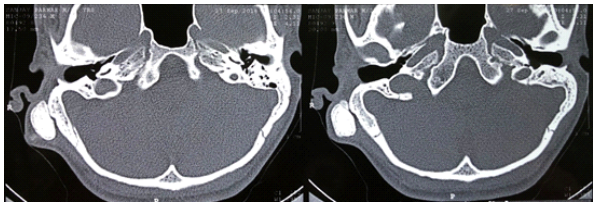

FIG.3 HRCT SHOWING BONY SWELLING RT SIDE

After painting and draping a 5 cm modified post auricular curvilinear incision was kept behind the swelling and subcutaneous flap was elevated to provide complete exposure of the osteoma. Osteoma was removed from base using chisel and hammer and rest of osteoma bone was drilled flush to outer table of skull to ensure complete removal and prevent recurrence[Fig.4,5,6,7] The wound was closed in layers and osteoma sent for histopathology examination[Fig.8,9]. Regular follow up (two months),was done. Patient was with good cosmetic cover and complains of no pain.

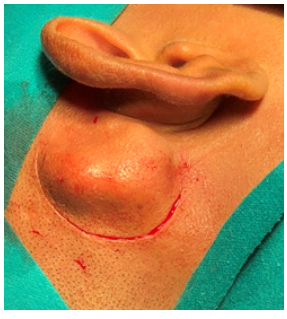

Fig.4 Incision Behind Swelling

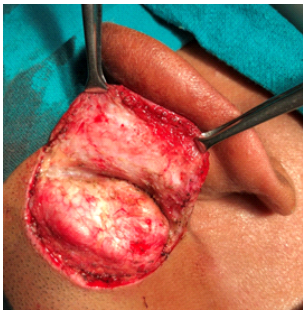

Fig.5 Elevation Of Subcutaneous Tissue

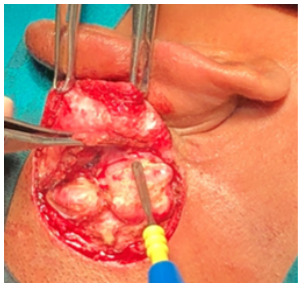

Fig.6 Exposing Of Osteoma

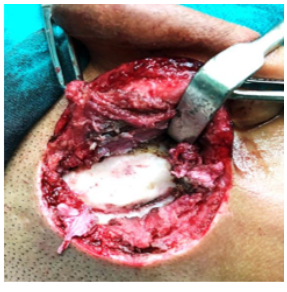

Fig.7 After Removal Of Osteoma

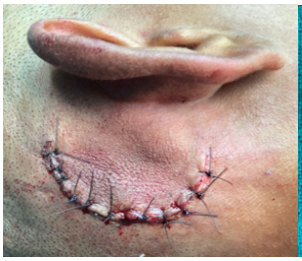

Fig.8 Post Op Closure

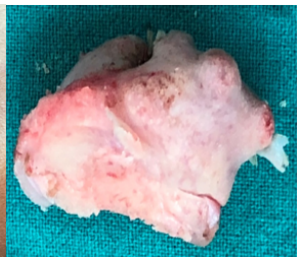

Fig.9 Osteoma

DISCUSSION

Temporal bone osteoma is very rare. Incidence of this osteoma is generally is 0.1%- 1% of all benign tumours of skull[1]. Within the temporal bone, osteomas are commonly reported in the external auditory meatus, middle ear, petrous temporal bone, internal auditory canal styloid process, temporomandibular joint, apex of the. However, it is reported rarely of this size in the mastoid region as in our case[2].

It is difficult to classify type of osteoma clinically, because the presentations are quite similar. There are three types of osteoma of mastoid reported in literature as: osteoma compactum, osteoma cancellare, and osteoma cartilagineum based on histology. Compact osteomas have a wider base and are very slow growing whereas spongy osteomas are more likely to be pedunculated and grow relatively faster[3].

Osteoma occurrence can be divided into syndromic and nonsyndromic Aetiology of nonsyndromic temporal bone osteomas are not known and various possible causes have been reported in literature and previous case reports. These include genetic origin, trauma, surgery, radiotherapy, chronic infections and pituitary dysfunctions[3]. Our case had single pyramid shaped mastoid osteoma without any obvious aetiological history as stated above.

Differential diagnosis of mastoid osteomas may include osteosarcoma, osteoblastic metastasis, isolated eosinophilic granuloma, Paget's disease, giant cell tumour, osteoid osteoma, calcified meningioma and monostotic fibrous dysplasia[3].

In Gardener's syndrome comprises of multiple intestinal polyps, mesentery and skin fibromas, epidermoid inclusion cysts and osteomas with a tendency of occurrence in membranous bones such as maxilla and mandible[4].

Temporal bone osteoma swellings are usually painless like in our case. They however can be painful gradually with cosmetic disfigurement as well as there can be difficulty in wearing glasses. Rarely, the petrous part of the temporal bone may be involved along with facial nerve and part of the internal ear that leads to hearing loss as a complication[5].

Non contrast CT scan is the imaging method of choice for temporal bone osteomas and other osteomas. Imagining showed, ivorywhite osteomas which appear radio dense, similar to normal cortex, whereas mature osteomas may demonstrate central marrow. It is seen as a high opacity, well-demarcated, and dense growth of sclerotic lesion from the mastoid bone[5].

Surgical resection is the treatment of choice with most common indication being cosmetic disfigurement followed by associated symptoms, and also to prevent its later complications, which can be caused by giant osteomas[5].

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