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Mastoid Osteoma Case Report

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Abstract

Osteomas are uncommon benign slowly growing bony tumors. It is rarely present in the mastoid portion of temporal bone. It is usually asymptomatic and kept stable for long time and mostly treated for cosmetic purposes. In the present report, we describe such a rare case in 22 year female managed in our department.

Keywords: *Osteoma, mastoid, temporal bone*

Introduction

Osteomas are benign, new bone forming tumors located within bones or developing on them.[(1)] predominantly occurring in long bones, rarely found in the skull, in the skull mostly occur in the fronto-ethmoidal region and rarely in the temporal bone, if occur in temporal bone it is mostly in the external auditory canal and extracanalicular cases mainly present on the mastoid.[(2)] Asymptomatic in most cases, patients may present with unacceptable disfigurement and treated mainly on cosmetic grounds.[(3)] imaging is the gold standard for the diagnosis.

Case report

The patient is 22 year old female presented with the complaint of right post-auricular swelling for about 4 years duration which was painless and gradually increasing in size. She did not complain of earache, headache, deafness, giddiness or any neurological or other systemic symptoms. She denied any history of trauma.

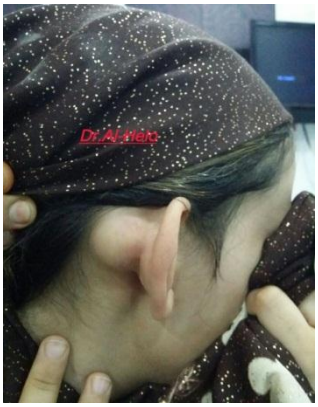

Figure 1 Clinical photograph

On clinical examination, there was 3×3 cm rounded swelling, of smooth surface, bony hard in consistency, immobile and attached to underlying structure and not tender, detailed ENT examination including cranial nerves was all normal.

CT scan was done and revealed well demarcated sessile bony mass originating from right mastoid cortex with no evidence of destruction, no intracranial extension and all external, middle and inner ear structures were normal. There was a definite plane of well pneumatised bone at the base of the osteoma. There were no other osteomas elsewhere in the skull.

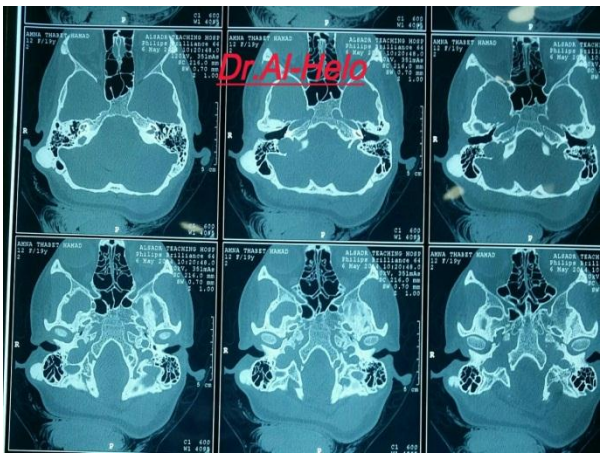

Figure 2: CT scan, Axial cuts

Patient was taken up for surgery under GA, by modified post- aural incision over the mass and dissection was done to release it from all directions, we found a white ivory mass with a broad base, which was thinned out using a bone drill and then removed in to using a GIGLY saw, the base was polished till the pneumatised bone had been reached.

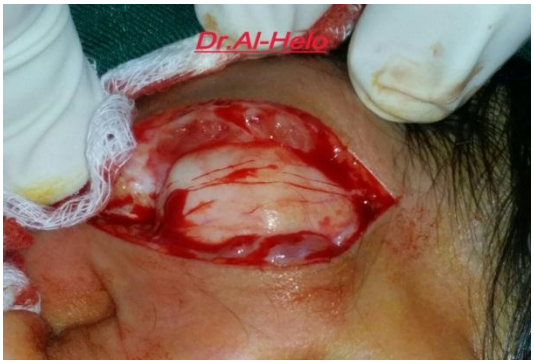

Figure 3: Intraoperative view after incisin

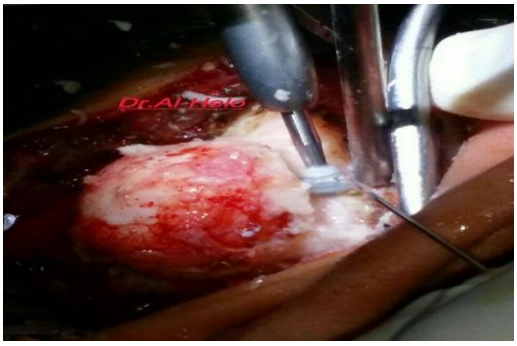

Figure 4: Thining out the base by drill

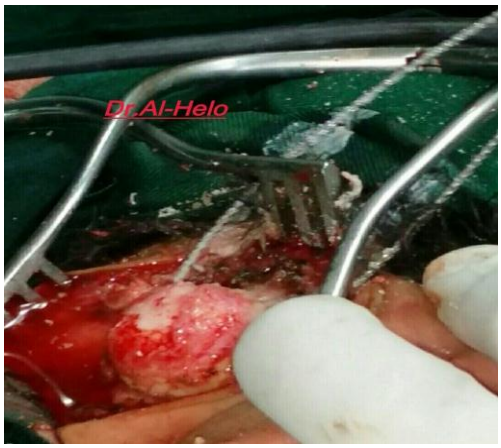

Figure 5: Removing the mass by GIGLY saw

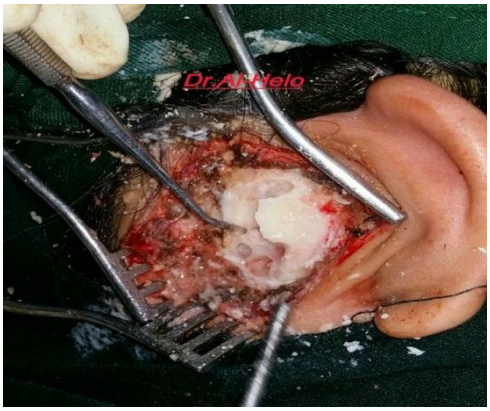

Figure 6: The base of mass immediately after removal

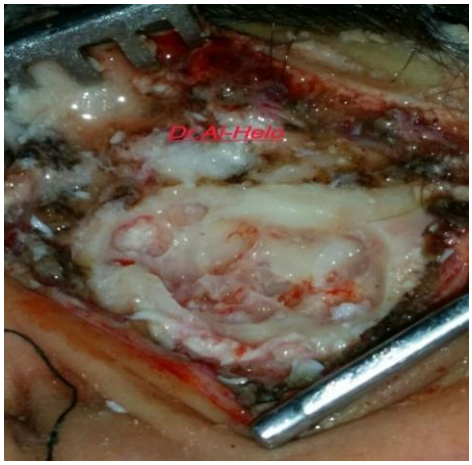

Figure7: The mass removed completely and the base was polished

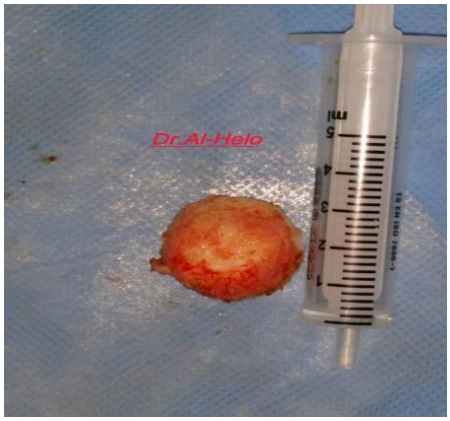

Figure 8: The excised specimen

Discussion

Osteoma is a slow growing benign mesenchymal osteoblastic tumor formed by mature bone tissue.[4] Excluding lesions of the external auditory canal ,osteomas of the temporal bone are a definite rare occurrences, the commonest site being the squama and the mastoid.[5] Generally, osteomas of the temporal bone occur in young individuals and those of the mastoid process are more common in females[5]. Mastoid osteoma is usually single and grows from the outer table of the mastoid cortex producing an external swelling [5]. The etiology of osteoma is unknown, but there is some evidence to suggest a congenital origin [6]. Metaplasia following recurrent local irritation, trauma, previous surgery, radiotherapy, chronic infection, and hormonal factors are the most commonly accepted theories for occurrence of osteoma [4] [6]. Osteomas usually occur singly, but when they are multiple, Gardner's syndrome must be ruled out [6].

It is generally an incidental finding, Its occurrence is of 0.1% to 1% of all benign tumors of the skull [4]. Treatment is indicated for osteomas that are symptomatic or cosmetically unacceptable [4]. It should be differentiated from (differential diagnosis) other mastoid bone tumors,

especially osteosarcoma, bone metastases, multiple myeloma, giant cell tumor, lesions encountered in Paget's disease or fibrous dysplasia [7].

Histologically, three varieties of osteoma are classically described: compact, cancellous and mixed [7]. Our case was of compact type which is the commonest one.

Conclusion

Although mastoid osteoma is a rare presentation, should be listed in the differential diagnosis of post-auricular masses, and clinical plus radiological features give high suspicion.

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