

## OSTEOMA OF EXTERNAL AUDITORY CANAL: CASE REPORT

**Authors:** Anshu Sood (1), Shubham Dadoo (2)

**Authors Affiliations:** (1) Associate Professor, (2) Assistant Professor, Department of Otorhinolaryngology-Head and Neck Surgery, National Capital Region Institute of Medical Sciences, Meerut

### ABSTRACT

An osteoma of the external auditory canal is an uncommon benign tumor with an incidence estimated to be 0.05% of total otologic surgery. In head and neck, they most often arise in the fronto-ethmoidal region and rarely temporal bone. Osteomas usually asymptomatic and discovered incidentally. A 35 male presented with swelling in right posterior superior part of EAC, without any history of ear picking, swimming or trauma. CT temporal bone revealed a solitary osteoma, with was excised surgically. Histopathological examination confirmed Osteoma.

### INTRODUCTION

An osteoma of the external auditory canal is an uncommon benign tumor with an incidence estimated to be 0.05% of total otologic surgery.<sup>1</sup> In head and neck, they most often arise in the fronto-ethmoidal region and rarely temporal bone.<sup>2</sup> Osteomas have been described in all regions of temporal bone, including middle ear, internal auditory canal, semicircular canals, squamous temporal bone, mastoid and in external auditory canal.<sup>3</sup> Because it is solitary, unilateral and slow growing, it is usually asymptomatic and discovered incidentally. We here present a similar case of osteoma of external auditory canal managed in our department.

### CASE REPORT

A 30 year male presented in our OPD with complains of swelling in right ear. There was no history of ear discharge, vertigo or ear pain. Patient did not give history of ear picking, swimming or trauma. A clinical examination

revealed a solitary swelling about 0.5 x 0.5cm in size, arising from the posterior superior wall of right external auditory canal. It was firm, non tender and did not bleed on touch. Tympanic membrane could not be visualized because of the occlusion of external auditory canal with swelling and wax. High resolution computed tomography of the temporal bone (Fig 1&2) revealed a solitary osteoma which was pedunculated arising from the posterior wall of right external auditory canal. The mass was removed under general anaesthesia via postauricular approach (Fig 3). After raising tympanomeatal flap, a bony mass of 2cm was identified arising from posterior superior wall of external auditory canal. The peduncle was removed using small diamond burr and micro drill (Fig 4). The debris present medially were removed and normal tympanic membrane was visualized. Post operative period was uneventful. Histopathological examination revealed fine trabeculae of lamellar bone and prominent intertrabecular fibrovascular tissue consistent with osteoma. The patient is on regular follow up and no signs of recurrence detected.



Fig. 1



Fig. 2



Fig. 3



Fig. 4

## DISCUSSION

External auditory canal osteoma is an uncommon bony neoplasm, which is usually asymptomatic but sometimes may result to hearing loss if canal obstruction occurs<sup>4</sup>

It is widely accepted that external auditory canal exostoses and osteoma are separate clinical entities that differ in their gross appearance. Exostoses are a benign growth of bone originating from periosteum. These are multiple, bilateral often with anterior and posterior sessile lesions, broad based and are found medial to the

sutures on the tympanic bone. They are thought to be reactive condition secondary to multiple cold water immersions or recurrent otitis externa.<sup>5</sup>

Osteoma are considered true bony tumors that are single, unilateral and pedunculated and arise from the tympano- squamous or tympano mastoid suture line, often found at the anterior aspect of the bony-cartilaginous junction of external auditory canal.

On CT scan, osteoma is seen as a single, unilateral, well demarcated, hyper – dense attenuating outgrowth tumor which originates from tympanosquamous or tympanomastoid suture line , while exostoses appear as multiple , broad based lesion with no deep extension.<sup>4</sup>

Treatment of mastoid osteoma is surgical and it is indicated for osteomas that are symptomatic or cosmetically unacceptable. Excision or drilling of superficial lesion of mastoid and squama is a simple procedure. The major surgical challenges of removing obstructive EAC osteoma are related to proximity of the temporomandibular joint, facial nerve injury, inability to visualize the medial EAC landmarks.<sup>6</sup>

Histopathologically, osteoma of external auditory canal shows lamellated bone with minimal osteocytes surrounding fibrovascular channels. Fibrovascular channels contain sinusoidal blood vessels with abundant fibrous tissue.

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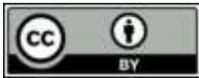
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**Corresponding Author:**

Dr. Shubham Dadoo  
Assistant Professor, Department of  
Otorhinolaryngology-Head and Neck Surgery,  
National Capital Region Institute of Medical  
Sciences, Meerut  
M: 9808785558  
Email: dadoo\_shubham@yahoo.com

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