ISSN PRINT 2319 1775 Online 2320 7876

Research paper UGC CARE Listed (Group -I) Journal Volume 11, Iss 7, Oct 2022

CASE OF RARE CYSTIC MASS IN EXTERNAL AUDITORY CANAL!!

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ABSTRACT

58 years old male came to Santosh hospital with reduced hearing in left ear from last 2 years, most common to conversational sounds. Patient did not give history of giddiness, facial asymmetry, pain, discharge in both ears. Patient is known case of Hypertension. Examination revealed normal looking pinna with soft erythematous cyst present in left external auditory canal (EAC) which covred the tympanic membrane (TM). Examination of the right ear was within normal limits. Pure Tone Audiogram (PTA) showed Left conductive hearing loss. CT scan temporal bone showed left lobular lesion with a central hyper density arising from the anterior wall of the left EAC with medial extension . Surgical exploration revealed large cystic mass from External auditory canal extending towards tympanic membrane. Another cyst was found and excised along the tympanic membrane. Immunohistochemical staining showed paraganglioma. The purpose of the report is to highlight a rare case of head and neck paraganglioma of EAC. Aim is to provide physicians knowledge to make a clinical diagnosis and appropriate treatment.

INTRODUCTION

Paragangliomas are the benign variety of tumors. This tumor is neuroendocrine in origin and present at nerve ganglia. They are of 2 types which is chromaffin and non-chromaffin types. [1]. This type of tumors stain positive for neuroendocrine markers. Head and neck tumors include glomus tympanicus, glomus jugulare, carotid body tumors.[2] Carotid body tumor is most common variety of tumor with 60% of incidence rate among the all tumors, follow by glomus jugulare, glomus tympanicum. [3] There are very low number of cases reported of

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this variety of tumor which is arising from the external auditory canal, having cystic appearance and extending towards the middle ear. [4,5]

CASE PRESENTATION

58 years old male presented to Santosh hospital, Ghaziabad with complaint of reduced hearing in left ear since 2 years. On examination of the patient, a large slightly reddish cystic mass was present in the left external auditory canal (EAC). The mass was big enough to cover the tympanic membrane (TM) and pedunculated with a broad base originating from the anterior external auditory canal. The opposite ear, pinna, EAC and tympanic membrane appeared normal. There was no history of pain, discharge, bleeding from ear, vertigo or facial asymmetry. Pure tone audiogram (PTA) showed moderate conductive hearing loss on left and minimal hearing loss in right side. High resolution CT Temporal Bone showed mass in the left External Acoustic meatus which is pedunculated and originating from anterior wall of external auditory canal. There is no sign of bony involvement. Middle Ear and inner ear structures were normal. Right temporal bone region was within normal limits. No other abnormalities detected. Surgical exploration of the mass showed the mass originating from external auditory canal and extending towards middle ear. Meatal Canal skin flaps were fashioned and preserved. Biopsy specimen taken. The EAC mass was cauterised using bipolar diathermy and removed piecemeal. Complete excision achieved and hemostasis ensured. Histopathology showed nesting pattern of classic praganglioma with central round chief cells and spindled cells at periphery of nest with prominent fibrovascular stroma. Immunohistochemical staining showed Image of tumor stained with antibody to synaptophysin showing diffuse, strong brown staining of tumor cytoplasm.

DISCUSSION

This case was difficult to diagnose as the growth was covered with epithelium giving it a normal cystic appearance rather than a tumour growth. The paraganglioma of EAC can propagate via various routes, mainly neural foramina, vascular channels communicating canal skin to middle ear. The likely structures involved are auricular branch of vagus nerve and on further extension, chorda tympani. This kind of presentation of paragangliomas are very rare. When chance of bone erosion is low, Contrast MRI is more helpful in diagnosis of this disease.

CONCLUSION

Paragangliomas are a rare group of tumours arise from the different parts of the body. But most commonly involves the ENT and head and neck regions. ENT surgeons should have high index of suspicion upon to diagnose such unusual EAC masses. ENT surgeons have to

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consider imaging technique like CT temporal bone on priority basis to rule out the differential out of it. Biopsy of the mass is also important in early identification of the paragangliomas which helps in plan of surgical management on early bases.

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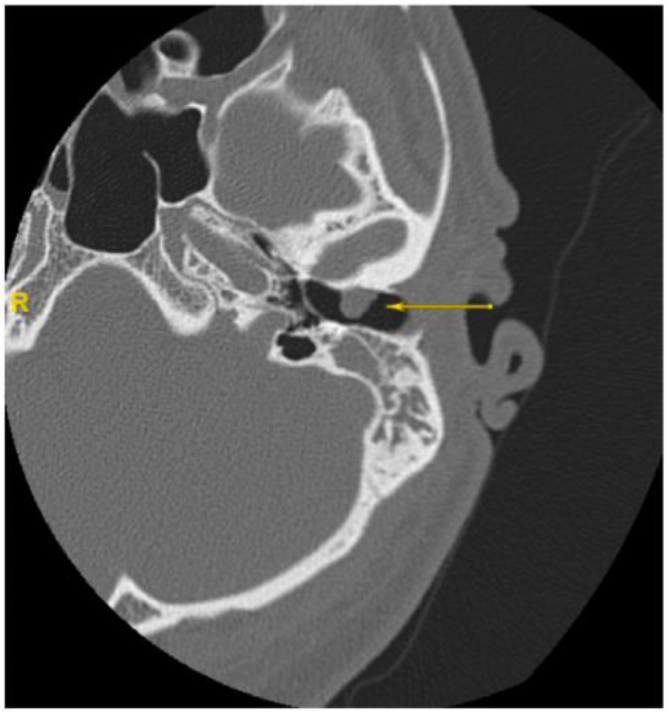

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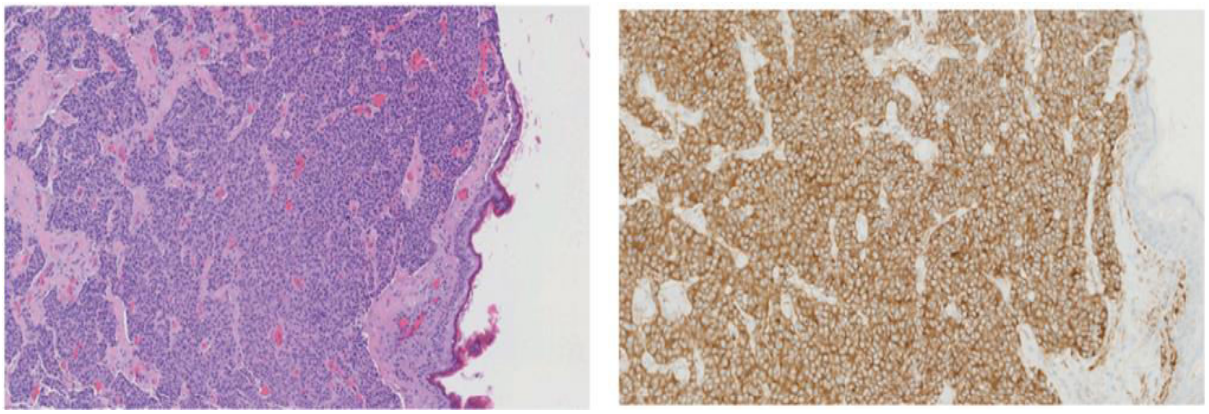
High resolution CT Temporal Bones showing mass in the left Acoustic meatus which is pedunculated along with external auditory canal



A. Histopathology Image showed nesting pattern of classic praganglioma with central round chief cells and spindled cells at periphery of nest with prominent fibrovascular stroma.

B. Immunohistochemical staining: Image of tumor stained with antibody to synaptophysin showing diffuse, strong brown staining of tumor cytoplasm.