Case Report ISSN (O):2395-2822; ISSN (P):2395-2814

Primary Pleomorphic Adenoma of the External Auditory Canal-A Case Report and Literature Review.

Sophia Amalanathan[1], Satish Kumar[2], Bharathi K.V[3]

[1,2]Assistant Professor, Department Of Otorhinolaryngology.

[3]Associate Professor, Department Of Pathology.

Received: December 2018
Accepted: January 2019

ABSTRACT

Tumours primarily arising from the external auditory canal are very uncommon and 5% of these originate from the glands present in the skin. Primary Pleomorphic adenomas arising from the External Auditory Canal are extremely rare and are difficult to diagnose preoperatively. They have clinically unremarkable presentation, and are treated by wide local excision with adequate normal margins. These tumours are mostly diagnosed postoperatively by histopathological examination and requires a long term follow up. In this case report we describe one such unusual case of primary Pleomorphic adenoma of the external auditory canal along with the literature review.

Keywords: External auditory canal, Pleomorphic adenoma, wide Local excision.

INTRODUCTION

Ceruminal glands are modified sweat glands present in the skin, and these glands in the external auditory canal (EAC) can give rise to tumours, both benign and malignant.[1] Primary Pleomorphic adenoma of the EAC are the rarest of tumours and are considered benign in the classification as given by World Health Organization(WHO) and Wetli et at.[2,3] EAC Pleomorphic adenoma have varied clinical presentation depending on the site of origin and extent into the middle ear.[4] We found only few cases have been reported till now, and limited information regarding their clinical presentation and management.[4,5] We report one such unusual case of Pleomorphic Adenoma of external auditory canal and its management.

CASE REPORT

33 years old female patient presented to the Outpatient department of otorhinolaryngology in our hospital with complaints of a mass in the left External auditory canal of 3 months duration. She had blocked sensation in the left ear which was progressively increasing. She did not have ear discharge, tinnitus or vertigo.

Name & Address of Corresponding Author
Dr. Sophia Amalanathan
Assistant Professor,
Department Of Otorhinolaryngology.

On examination of the left ear canal showed a single skin covered mass of size 10x10mm completely occluding the ear canal involving the cartilaginous portion of the External auditory canal. The mass seemed attached to the anteroinferior canal wall and the Tympanic membrane could not be visualized. The mass was non-tender, firm in consistency and did not have any significant cervical node enlargement on palpation. The EAC mass was planned for a wide local excision under microscopic guidance.

Per-operatively the mass was found to be arising from anteroinferior wall of the External auditory canal involving the cartilaginous portion in the left ear. The EAC mass was completely excised by wide local excision along with a part of normal skin. The underlying canal wall skin and the tympanic membrane were intact and no bony erosion was noticed. The ear canal was packed with a medicated wick that was removed on the second post operative day.

The gross findings of the excised specimen on pathological examination showed a grey white nodule measuring 1x 1 x 0.5 cm and the cut surface was solid and grey white, the microscopic examination showed an encapsulated tumour completely covered by stratified squamous epithelium [Figure 1]. The tumour was composed of lobules of ducts and trabeculae of cuboidal cells along with myoepithelial cells and fibromyxoid stroma [Figure 2]. The ducts showed secretions with apocrine features suggesting the ceruminal gland origin of the pleomorphic adenoma.

Postoperatively the patient was relieved of her ear symptoms and the ear wound completely healed with intact tympanic membrane. The patient is

followed up for 11 months, there is no recurrence at the surgical site and is continuing to be followed up.

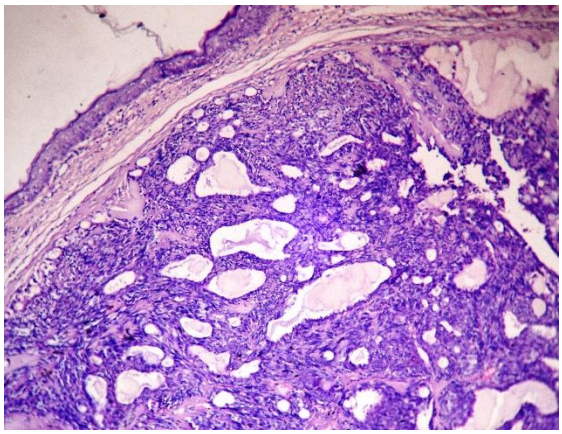

Figure 1: Showing lining by stratified squamous epithelium with subepithelium showing well circumscribed lesion containing stromal and glandular component (H& E stain 4X magnification)

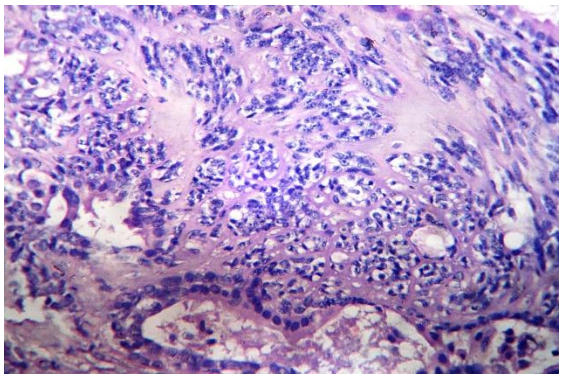

Figure 2: Showing stromal fibrocollagenous and myxoid component with glandular component displaying round to tall columnar cells with mucous secretions in lumen (H& E stain 40X magnification)

DISCUSSION

Pleomorphic adenoma is a "mixed tumour" arising from the salivary glands and can arise from the apoeccrine glands present in the skin of EAC.[1] Primary Pleomorphic adenoma of External auditory canal arise from the outer cartilaginous portion and can occur various sites as described in other case reports, the posterior wall, postersuperior, anterior or anteroinferior wall.[6] In our case the mass was seen arising from the anteroinferior wall of the EAC.

There is no gender or age predilection to the occurence of the tumour.[6] The tumors vary in size and may completely occlude the EAC and it can invade the middle ear causing various clinical symptoms like ear block, ear discharge , hearing loss, tinnitus or vertigo.[6] CT or MRI scan of the temporal bone can be done preoperatively to visualize the extent of the tumour, erosion of the underlying bone, involvement of the middle ear and also helps in planning the surgical procedure.[6]

Fine needle aspiration cytology (FNAC) of the tumour or incisional biopsy may help in histological diagnosis preoperatively but few also feel the procedure may seed the tumour cells and lead to recurrence later.[7,8] The duration of the tumour determines its malignant potential, which is said to be 6%.[8] Thus it is imperative to distinguish the nature of the mass in the EAC preoperatively for adequate management.

Histopathology helps in clinching the diagnosis, microscopy shows a completely encapsulated tumour, with lobules of ducts lined by myoepithelial cells and myxoid stroma. These features show that the tumour is benign and is arising from the ceruminal glands in the skin of the external auditory canal.[8]

A wide local excision of the tumour with adequate normal margins is considered the main stay of treatment and a histopathological examination is essential post-operatively.[8,9] This tumour mandates a long term follow up as Pleopmorphic adenoma can recur and also has the malignant potential,[10] therefore follow up of patient is necessary, however we also insist for a need of multicentre research for management of the malignant types of ceruminal tumours.

CONCLUSION

Primary Pleomorphic Adenoma of the External auditory canal is a very rare benign tumour arising from the ceruminal glands present in the skin. The clinical presentation may vary depending on the site and size of the tumour. CT or MRI scan of the temporal bone done preoperatively can help in diagnosing and also to plan the surgery. A complete local excision with adequate normal margins is considered the main stay of treatment. The histopathological examination of the excised tumour is a must after surgery. The patient has to be kept on follow up post-surgical excision, because pleomorphic adenoma has chances of recurrence and potential to turn malignant.

REFERENCES

1. Mansour P, George MK, Pahor AL. Ceruminous gland a reappraisal J Laryngol Otol. 1992 Aug;106(8):727-32.
2. Fletcher CDM. Ear. In: Barnes L, Eveson JW, Reichart P, Sidransky D, editors. Pathology and Genetics of Head and Neck Tumors. Lyon, France: IARC; 2005. pp. 330–333.
3. Wetli CV, Pardo V, Millard M, Gerston K. Tumors of ceruminous glands. Cancer. 1972; 29(5):1169–1178.
4. Haraguchi H. Pleomorphic adenoma of the external auditory canal: a case report and review of the literature. Journal of Laryngology and Otology. 1996;110(1):52–56
5. Markou K, Karasmanis I, Vlachtsis K, Petridis D, Nikolaou A, Vital V. Primary pleomorphic adenoma of the external ear canal. Report of a case and literature review. American

Journal of Otolaryngology: Head and Neck Medicine and Surgery. 2008; 29(2):142–146. [PubMed]
6. Chizu Saito, Takeharu Kanazawa, Takehiko Yamaguchi, Ken-ichi Nakamura, Keiichi Ichimura Primary Pleomorphic Adenoma of the External Auditory Canal: A Case Report and Review of the Literature Case Rep Otolaryngol. 2014; 2014: 975151.
7. Masumura C., Horli A., Mishiro Y., et al. — Magnetic resonance imaging of pleomorphic adenoma arisingfrom external auditory canal. J Laryngol Otol. 117 (11):908-909, 2003.
8. Snya Chadha, Kulwant Kaur Pannu, Karamjit Singh Gill Pleomorphic Adenoma of External Auditory Canal, Indian J Otolaryngol Head Neck Surg. 2011 Jul; 63(Suppl 1): 61–63.
9. Samir Jaber, Milan Rudic, Ivan James Keogh. Pleomorphic Adenoma of the External Auditory Canal: A Rare Presentation Case Rep Otolaryngol. 2015; 2015: 696531.
10. Wright D (1997) Diseases of the external ear: Scott Brown's otolaryngology, 6th ed, vol 3, Oxford, Butterworth–Heinemann

How to cite this article: Amalanathan S, Kumar S, Bharathi KV. Primary Pleomorphic Adenoma of the External Auditory Canal-A Case Report and Literature Review. Ann. Int. Med. Den. Res. 2019; 5(2): EN01-EN03.

Source of Support: Nil, **Conflict of Interest:** None declared