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Middle Ear Adenoma with Uncommon Presentation: A Case Report

Edde Dih Haimedah [a*], Hamed Bamine [a], Hacen Hamoud [a], Tijani Mohamed Abdel Malik [a], Heiba Mohamed [a] and Ledour Abdelvetah [a]

[a] Military Hospital, Nouakchott, Mauritania.

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Study

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ABSTRACT

Adenomas of the middle ear are even rarer. Although considered benign tumors, they carry a risk of recurrence and malignant transformation. We present a 37-year-old patient with a hypoacusis of the left ear with purulent otorrhea on a non-marginal tympanic perforation as symptomatology. The audiogram showed transmission deafness, and the scanner found a fleshy attic mass with a preserved ossicular chain. The patient underwent an antro-atticotomy with mass excision, the anatomopathological result of which was in favor of an adenoma of the middle ear. The patient has shown no recurrence for almost 2 years. In conclusion, middle ear adenomas are rare neoplasms and have no specific symptoms or clinical presentation. Total exploration and extirpation is required for treatment, and microscopic and immunohistochemical examinations are mandatory for a definitive diagnosis.

Keywords: Case report; adenoma; middle ear; atticotomy.

1. INTRODUCTION

Ear tumors form a heterogeneous group whose diagnosis must be evoked in the face of any unilateral damage (hearing, vestibular), any duct polyp, or unfavorable development of a usual treatment must lead to an auditory examination [1]. The adenoma of the middle ear is a benign tumor, but there is a risk of recurrence and malignant transformation [2].

**Corresponding author: E-mail: hamedbamine@gmail.com;*

Middle ear adenoma is a rare disease with few published cases in the literature [1-4]. Here we presented a 37-year-old patient with a hypoacusis of the left ear with purulent otorrhea who underwent surgery and was diagnosed histopathologically as an adenoma of the middle ear.

2. CASE PRESENTATION

A 37-year-old patient consulting for recurrent left ear infections associated with hearing loss. otoscopy find the presence of purulent otorrhea on a non-marginal tympanic perforation and a fleshy polyp in the middle ear. Acoumetry and audiogram find transmission deafness. A computed tomography (CT) scan of the rocks was performed, which resulted in the presence at the attic level of a fleshy filling with a continuous ossicular chain (Fig. 1).

The patient underwent antro-atticotomy with mass removal, the anatomopathological result of which was in favor of an adenoma of the middle ear (Fig. 2). The patient has shown no recurrence for almost 2 years.

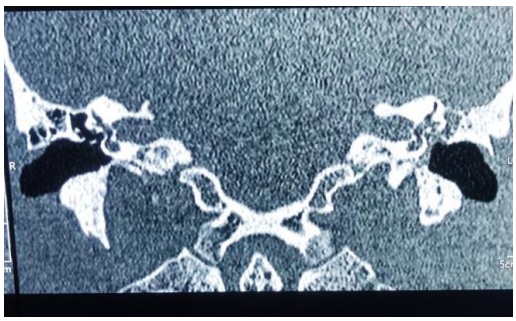

Fig. 1. CT images of a middle ear adenoma, showing a non specific middle ear mass (arrow)

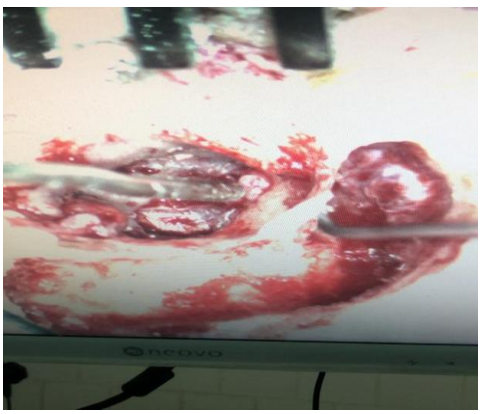

Fig. 2. Intraoperative photo showing the adenoma after mastoidectomy (arrow)

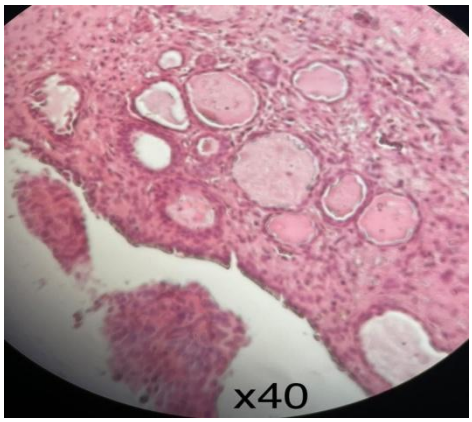

Fig. 3. Photo showing the histological examination of adenoma

3. DISCUSSION

Middle ear adenoma (sometimes incorrectly called ‘’carcinoid tumor’’ or ‘’ceriminoma’’ is a rare benign epithelial tumor; only about 100 cases are reported, with a small (10mm) well-limited size [5, 6]. It is derived from pluripotent epithelial cells of the middle ear mucosa, of endodermal origin, which have a double capacity of exocrine differentiation (cells with mucosal secretion granules) and neuroen-docrine differentiation (cells with neurosecretory granules) [6].

The average age of onset is between 20 and 40 years. The most common symptoms are hearing loss, fullness of the ear, tinnitus and otorrhea. Dizziness and peripheral facial paralysis are more rarely reported [1, 7].

Clinical examination may reveal non-pulsatile retrotympanic greyish mass. The eardrum is rarely invaded by the tumors [7].

The main differential diagnoses are usually eliminated by preoperative radiologic imaging [CT and Magnetic resonance imaging (MRI)]: paraganglioma, cholesteatoma, or much more rarely schwannoma of the tympanic segment of the facial nerve, meningioma, etc. [3]. In CT scan, adenoma occurs as a mass of the eardrum cage that may affect the patient. groin the ossicular chain. Mastoid extension, ossicular lysis and bone erosion – including the tegmen rupture as described in our clinical case – are rare. In MRI, the lesion is elevated after gadolinium injection and is not hypersignal on the diffusion sequences, distinguishing it from the cholesteatoma [6].

Given the rarity of these lesions and the lack of specific clinical presentation, the diagnosis is rarely mentioned in the preoperative period. The treatment is surgical removal, sometimes with the need for an ossicular sacrifice to allow complete removal [6]. The diagnosis is then confirmed by histological and immunohistochemical examination. Recurrences after complete removal are rare [8].

4. CONCLUSION

Middle ear adenomas are rare neoplasms and have no specific symptoms or clinical presentation. Total exploration and extirpation is required for treatment, and microscopic and immunohistochemical examinations are mandatory for a definitive diagnosis.

CONSENT

As per international standard or university standard, patients' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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