Case Report

Otitis Media with Effusion Revealing Underlying Meningioma

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INTRODUCTION
Extracranial extension of meningioma is rare and most frequently involves the orbit or the nose and paranasal sinuses [1]. Spreading to the temporal bone is even more rare and can imitate otitis media with effusion (OME) with a high risk of misdiagnosis and/or delay to find out the correct diagnosis of intracranial meningioma [2, 3].

We present a case of chronic OME revealing underlying meningioma and based on a literature review, discuss the main aspects of diagnosis and management of this condition.

CASE PRESENTATION
A previously healthy 44-year-old woman visited our department for an OME persisting despite two courses of antibiotics, steroids, and decongestants. She complained of right aural fullness with hearing loss that started 12 months before. Otoscopy revealed a right middle ear effusion behind an intact tympanic membrane suggesting serous otitis media. Physical examination was otherwise normal, including the fiberoptic examination of the nasopharynx. Hearing test revealed a 30 dB right conductive hearing loss (CHL).

A ventilating tube (VT) was placed in the right ear under local anesthesia. The postoperative course was marked by a purulent otorrhea resistant to conservative management, and the persistence of the 30 dB CHL.

Computed tomography (CT) was performed and a non-specific soft tissue mass filling the middle ear and mastoid cavities, associated with a hyperostosis of the temporal bone and a hairy aspect of the margins of this hyperostotic bone reaction, was seen on the right side (Figure 1). This radiologic triad is highly suggestive of an intracranial meningioma extending to the middle ear and mastoid; this was confirmed by additional magnetic resonance imaging (MRI) demonstrating a right temporal en plaque meningioma spreading to the adjacent sphenoid wing (Figure 2).

Based on this diagnosis, we removed the VT. The tympanic membrane spontaneously healed and the discharge stopped. A conservative management was decided. Amplification with hearing aid was offered to the patient who declined.

The patient gave us a verbal informed consent to report her case.
CT, being the first line imaging modality for exploring OME, as in our case with more than 1 year. Imaging is the key for the diagnosis of meningioma. The otolaryngologist should be aware of this situation and should not hesitate to perform complementary imaging evaluation in case of a unilateral OME that is prolonged or unresponsive to usual therapies.

Informed Consent: Verbal informed consent was obtained from the patient who participated in this study.

Peereview: Externally peer-reviewed.


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REFERENCES

4. Williams MT, Ayache D. Imaging of the postoperative middle ear. Eur Radiol 2004; 14: 482-95. [CrossRef]