14. Temporal bone meningioma: imaging features to alert the radiologist and triage to a neuro-otology tertiary referral unit.

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Purpose

Discussion of a case of temporal bone meningioma presenting as conductive hearing loss with display of imaging findings helpful for accurate pre-surgical diagnosis. Early diagnosis can alert the ENT surgeon that a combined ENT and neurosurgical surgical approach may be required.

Methods and Materials

Clinical, audiometric, histopathological and imaging findings in a case of temporal bone meningioma mimicking chronic otitis media.

Results

A 43 year old lady was referred to ENT OPD with progressive unilateral hearing loss. Examination and audiometry were suggestive of chronic middle ear effusion or otosclerosis. CT temporal bones showed opacification of the right mastoid air cells and middle ear with sclerosis of the temporal and occipital bones thought to reflect chronic middle ear infection with a possible cholesteotoma. At EUA a fleshy middle ear mass was identified and biopsied. Histology showed meningoepithelial tissue with psammoma bodies, confirming meningioma.
Opacification of the mastoid air cells and middle ear with or without temporal bone sclerosis is seen with middle ear infection, cholesteatoma or chronic mastoiditis. Hyperostosis, soft tissue in the diploic space and involvement of other skull base bones are not features and should suggest meningioma.
Post biopsy MRI showed typical post contrast avidly enchaing mass in the temporal and occipital bones with dural enchancment.

Conclusions

Temporal bone meningioma involving the middle ear is rare. Presenting symptoms are non-specific. This can lead to delayed diagnosis and treatment. Radiological diagnosis with typical CT +/- MRI findings can help distinguish meningioma from other middle ear diseases and prompt appropriate referral to a tertiary neuro-otology unit.