doi:10.1017/S0022215116006423

ID: IP146

Middle Ear Adenoma, A Rare and Controversial Diagnosis: Case report and Discussion

Presenting Author: **Mona Mozaffari**

Mona Mozaffari[1], Matthew Bull[2], Olivia Whiteside[2]

[1]*ENT registrar at Wexham Park Hospital, UK,* [2]*Wexham Park Hospital*

Learning Objectives: Learning Objectives Middle ear adenomas are exceedingly rare Pre-operative radiological workup does not always correlate with intraoperative findings and clinicians should keep an open mind Histological classification of middle ear adenomas remains controversial Surgical resection is the treatment of choice.

Introduction: Middle ear adenoma is a rare differential diagnosis for a middle ear mass. Histological classification of middle ear adenomas remains poorly defined. As well as presenting our experience of one such case, this study aims to assimilate findings from previously published cases in order to contribute to our knowledge of a rare diagnosis.

Method: We report the case of a 51 year old male who presented with symmetrical tinnitus and left sided hearing loss. Examination revealed a postero-inferior mass behind the left tympanic membrane. CT and MR imaging was consistent with a tumour arising from the chorda tympani nerve and a pre-operative diagnosis of chorda tympani neuroma was made. However, intra-operative findings revealed a well-defined mass, close to but distinct from the chorda tympani nerve. Histopathology of the tumour was consistent with a middle ear adenoma.

Results: A review of the literature shows 95 previous reported cases of middle ear adenoma with the entity first described in 1976. A common theme is the difficulty of making a correct pre-operative diagnosis when faced with a middle ear mass, despite modern imaging techniques. Histologically, middle ear adenomas continue to defy classification with their cell line of origin posing the main point of controversy: exocrine versus neuroendocrine cell types. This in turn poses controversies regarding treatment and follow up.

Conclusion: Middle ear adenomas are rare. Reported cases highlight the difficulty of interpreting preoperative imaging. The histological classification of these tumours poses a further difficulty. With the natural progression and prognosis if left untreated of these tumours remaining unknown, further studies and reports would be a welcome addition to the literature. A current literature review advocates a radiological workup and surgical excision where there is clinical suspicion of middle ear adenoma

doi:10.1017/S0022215116006447

ID: IP148

The cytokeratin pattern of congenital and acquired cholesteatoma, epidermoid, medial and lateral canal wall skin

Presenting Author: **Jef Mulder**

Jef Mulder[1], Theo Peters[1], Paul Vennix[2]

[1]*Radboud University Medical Center,* [2]*Leids Universitair Medisch Centrum*

Learning Objectives: In this paper we present a study in which cytokeratins have been used to characterize congenital cholesteatoma and epidermoid (and we compared these patterns with previous data on acquired cholesteatoma and ear canal skin) in order to confirm or invalidate a developmental theory.

Introduction: Histologically ear canal skin, epidermoid, congenital and acquired cholesteatoma are indistinguishable. They all contain keratin, a matrix of keratinizing stratified squamous epithelium and a lamina propria-perimatrix. Nowadays still different theories on the development of congenital cholesteatoma and epidermoid are suggested.

Cytokeratins are intermediate filament proteins that are exclusively present in epithelial cells and can be used to study epithelial differentiation.

In this paper we present a study in which cytokeratins have been used to characterize congenital cholesteatoma and epidermoid (and we compared these patterns with previous data on acquired cholesteatoma and ear canal skin) in order to confirm or invalidate a developmental theory.

Methods: Cytokeratin Antibodies RCK103, RCK105, M20, CK18–2, LP2 K, AE14, RCK107, E3, KA12, LL025, RKSE60, 6B10 en 1C7 were used to characterize the cytokeratin pattern of congenital cholesteatoma and epidermoid of the cerebellopontine angle. These data were compared with previous patterns on acquired cholesteatoma and medial and lateral ear canal skin.

Results: Our results show that the cytokeratin pattern of congenital cholesteatoma and epidermoid differs. The cytokeratin expression of congenital cholesteatoma mimics the pattern of acquired cholesteatoma and medial ear canal skin: slightly positive LP2 K (Ck19), AE14 (Ck5), 6B10)Ck10) and 1C7 (Ck13). The pattern of epidermoid is comparable to that of normal skin: negative LP2 K, 6B10 and 1C7 and positive AE14.

Conclusions: The cytokeratin pattern of congenital cholesteatoma, acquired cholesteatoma and medial ear canal skin coincide. This may support the invasion theory as explanation of its development. Epidermoid and lateral ear canal