

Auricular schwannoma– A rare presentation

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Abstract

Schwannoma or neurilemmoma is a benign, slow growing tumour that arises from the nerve sheath consisting of schwann cells. Histologically, it shows encapsulated, well circumscribed lesions composed of different cellular patterns and arrangement. It usually arises from superior vestibular nerve in the internal auditory canal. Here, we report a case of schwannoma that was located on the external ear which is of rare occurrence. Only a handful of such findings has been reported in the literature so far.

Key words: Auricular schwannoma, External ear, Pinna

INTRODUCTION

Schwannoma is an encapsulated nerve sheath tumor of Schwann cells which are of neuroectodermal origin. About 25-45% of extra-cranial schwannoma arises from nerves of head and neck region¹. It presents as well-circumscribed masses attached to peripheral nerves, cranial nerves or spinal nerve roots. Majority of them present as vestibular schwannoma². These tumors are rarely diagnosed in the external ear^{3,4}. It is also one of the common benign tumors of middle ear usually arising from facial nerve and chorda tympani nerve⁶. Thorough review of literature shows only four cases of auricular schwannoma¹, thus we decide to present a rare case of auricular schwannoma which is the first of its kind in our country that has been reported.

CASE REPORT

A twenty-eight years male presented with swelling in left auricular region for one year, which was painless and gradually increasing in size. No history of trauma could be elicited. On examination, there was a 2cmx1cm mass present in left pinna at the region of cymba-concha extending from the inferior crus of antihelix. It was firm, mobile, non-tender and not adherent to the overlying skin (Figure 1). Rest of the aural examination was insignificant. Provisional diagnosis of follicular infundibular cyst was made. Patient was advised for fine

needle aspiration cytology (FNAC), which showed few loose stromal fragments. He was then advised for surgical removal for a definite diagnosis. Excision was done under local anesthesia with preservation of the overlying skin. Per operative finding showed firm, rubbery like swelling not adherent to underlying cartilage. It was excised completely and sent for histopathological examination.

Histopathological examination grossly showed an encapsulated, lobulated, solid grey white mass on cut surface measuring 2cmx1cm in size (Figure 2). Microscopic examination revealed a mixed tumor with predominantly hypercellular (Antoni A) along with hypocellular (Antoni B) areas. Hypercellular areas showed oval to elongated cells. Verocay bodies were also seen (Figure 3). Immunohistochemistry was positive for S100 stain (Figure 4). Accordingly, a definite diagnosis of auricular schwannoma was made. Articulo-temporal branch (V₃) of trigeminal nerve was the probable site of origin owing to the region of the growth. There was no recurrence at 10 months follow up.

DISCUSSION

Schwannoma was first reported in auricle by Fodor et al in 1977⁵. It is also known as neuroma, nerve sheath tumor and neurilemmoma. Schwannomas in head and neck usually present as painless lumps, seldom involving the external ear³. Occasionally in one third of cases of auricular or cutaneous schwannoma, pain and paresthesia may be present⁷.

It presents as slow growing, well demarcated ovoid mass with true capsule which improves dissection during

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surgery⁴. Microscopy shows proliferation of schwann cells in two histological patterns of Antoni A and Antoni B. It shows closely packed cells with small spindle shaped and densely stained nuclei with whirled verocay bodies in Antoni A. Whereas in Antoni B, tissue is loosely arranged stroma in which the fibres and cells form no distinct pattern. The two types may also be mixed⁸.



Figure 1: Mass in left pinna

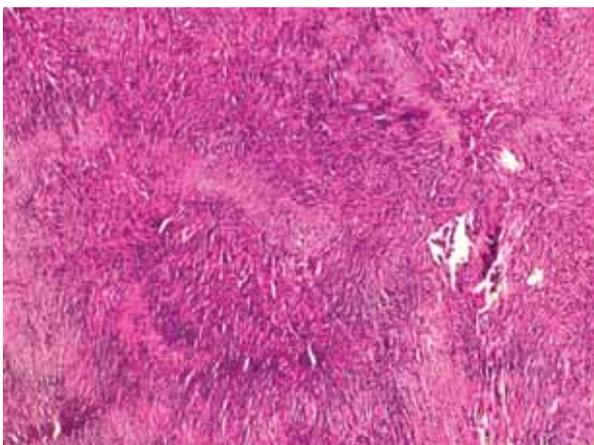


Figure 2: 40X H&E: Encapsulated lobulated mass comprising predominantly of oval to elongated cells

The usefulness of FNAC is controversial and majority of authors do not recommend needle biopsy for these masses². Likewise in our case, the FNAC was inconclusive. Differential diagnosis includes epidermoid cyst, sebaceous cyst, chondroma, fibroma and neurofibroma. The definite diagnosis should be based on histopathological and immunohistochemical findings. Virtually all benign nerve sheath tumors contained numerous immunoreactive S-100 positive cells⁹. It's recurrence is rare when it is surgically excised completely.

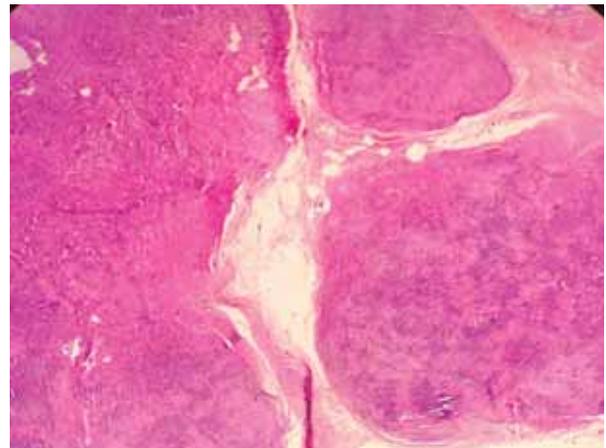


Figure 3: 10X H&E

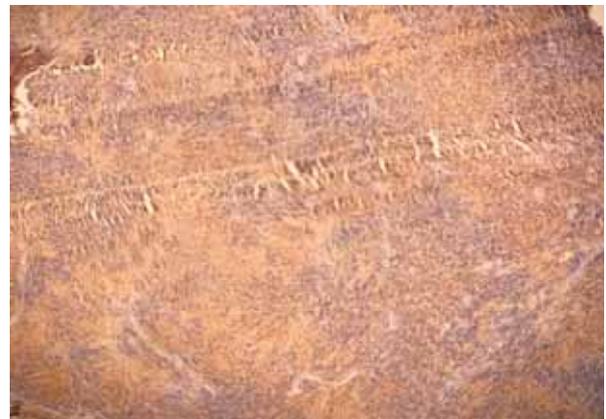


Figure 4: 10X: S-100 positive

CONCLUSION

Auricular schwannoma is a rare condition which can pose diagnostic dilemma to the clinicians. Although it is the first case to be reported in our country, the clinician should be acquainted to all the possibilities. It should be well thought out as a differential diagnosis of a lump on pinna. If FNAC is inconclusive, emphasis should be given to the biopsy of the specimen so that we do not miss out the atypical ones.

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