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CASE REPORT

Auricular Schwannoma: A Rare Presentation

Kuldeep Thakur, Satish Kumar Sharma, Rashmi Raina, Vikas Deep Gupta

ABSTRACT

Schwannoma is an extremely rare tumor of auricle. We are presenting a rare case of auricular schwannoma, perhaps the fifth in world literature, with traumatic etiology. Twenty-five years old female presented with swelling left pinna since 6 years following ear piercing. She desires surgery for cosmetic reasons only. Swelling was excised under local anesthesia and sent for histopathological examination. HPE report was suggestive of nerve sheath tumor. No recurrence has reported so far in follow-up of 9 months period.

Keywords: Schwannoma, Nerve sheath tumor, Auricle, Schwann cells.

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INTRODUCTION

Schwannomas are slow growing, benign tumors of schwann cell origin which encapsulate peripheral nerve fibers, cranial nerves and autonomic nerve fibers.[1] Schwann cells encapsulate nerve fibers and helps in fastening the propagation of nerve impulses. Majority of tumors arises in central nervous system and 25 to 45% of all schwannomas are present in head and neck region with majority as vestibular schwannomas.[2] To our knowledge, in external ear, it commonly involves external auditory canal[1,3] and very rarely in pinna.[2,4-6] A comprehensive review of the literature shows that only four cases of nerve sheath tumors in auricle have been found.[2]

We present further rare case of auricular schwannoma in a young lady.

CASE REPORT

A 25 years of female adult presented with swelling in left pinna following ear piercing since 6 years which was progressively increasing in size. There was no other ear complaint. On physical examination, there was an oval shaped mass present on helix 12 × 8 mm in size near Darwin tubercle in territory of greater auricular nerve (Fig. 1). It was soft to firm, mobile, nontender and overlying skin was mobile and erythematous. Rest of ear examination, general physical examination and laboratory investigations were not contributory to the case under discussion. Provisional diagnosis of chondroma was made. Radiological investigation was no needed as the mass was very small. Mass was subjected for excision under local anesthesia. Intraoperatively, it was not adherent to auricular cartilage and separated from underlying perichondrium by loose connective tissue (Fig. 2). Mass was excised into to, sent for histopathological examination and defect was closed primarily. With histopathological report and S-100 positivity on immunohistochemistry, diagnosis of auricular schwannoma was made. Patient is on regular follow-up and no signs of recurrence has found in 9 months duration.

Gross Appearance

Mass was 12 × 8 mm oval, smooth surfaced, well encapsulated pinkish white and on cut section, it was pinkish white with no necrosis, hemorrhage or cystic degeneration seen (Fig. 3).

Microscopic Findings

On microscopic examination of the H&E stained sections showed spindle shaped cells with darkly stained nuclei arranged in both Antoni type A and B pattern with presence of well-defined verocay body (Figs 4 and 5).

DISCUSSION

Schwannoma also known as neurinoma, neuroma, nerve sheath tumor and neurilemmomas, are slow growing, benign tumors of schwann cell origin which encapsulate nerve fibers and helps in accelerated propagation of nerve impulse.[1] Schwannoma in auricle was first reported by Fodor et al in 1977.[4] Auricle is innervated by Greater auricular nerve, lesser occipital nerve, auriculotemporal nerve and partly by VII th and Xth nerve. In the case under discussion, mass may have originated from the branch of greater auricular nerve as it was present near Darwin tubercle in the territory of this nerve. Auricular or cutaneous schwannomas are usually asymptomatic but pain and paresthesia may be present in about one third of cases as cutaneous manifestation.[7] In auricle, it usually presents as slow growing mass with esthetic deformity. Differential diagnosis of mass in pinna may includes cystic mass (epidermoid, sebaceous cyst), chondroma, fibroma and neurofibroma.

Grossly they tend to be oval, well demarcated and varies in diameter. It has true capsule forming smooth surface under skin which facilitate in dissection during surgery.[1] The cut section is firm, uniform parenchymatuous consistency and

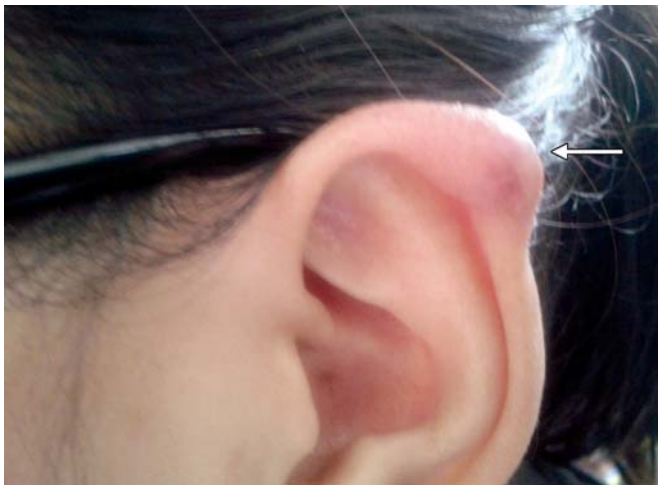

Fig. 1: Mass left pinna

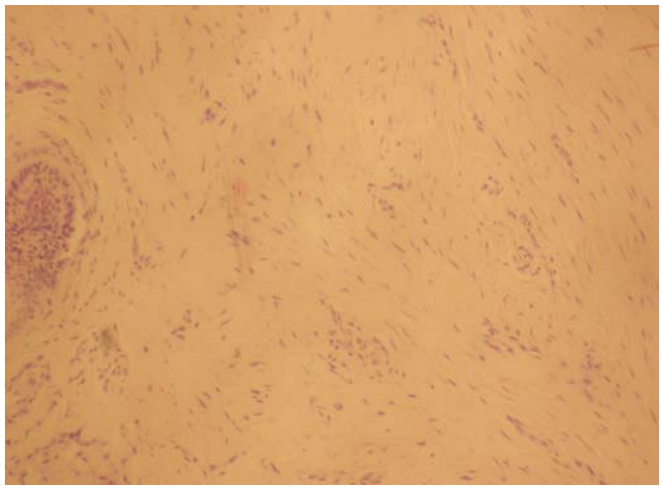

Fig. 4: Microscopic view

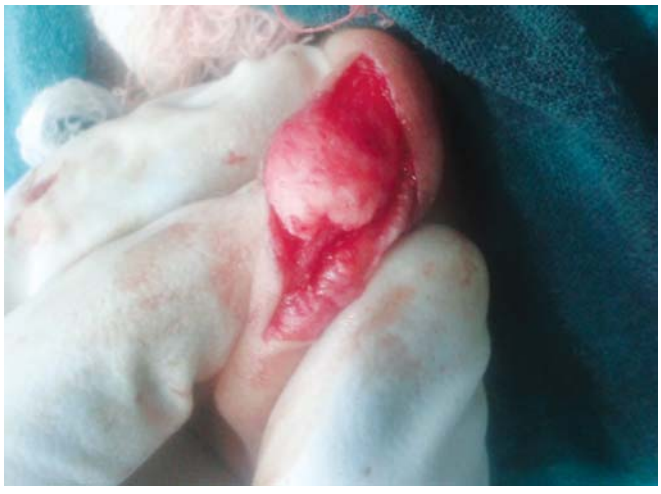

Fig. 2: Intraoperative photograph

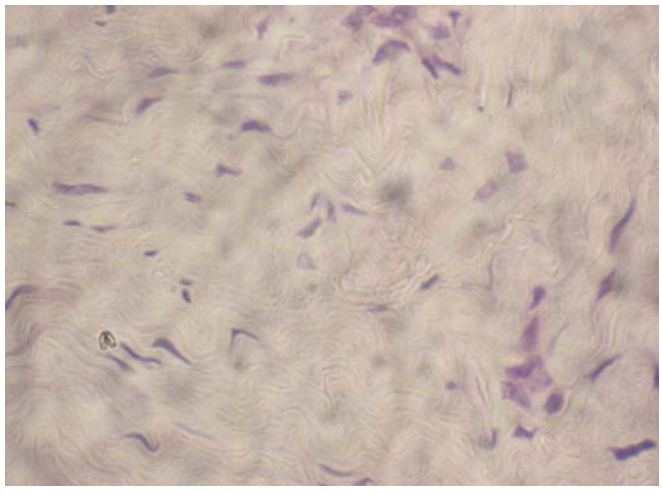

Fig. 5: Microscopic findings high power

Fig. 3: Gross and cut section

tan to grey, and often shows focal hemorrhage, necrosis, cystic degeneration and xanthomatous changes as it increases in size. On microscopic examination, the proliferating schwann cells form two distinctive histological patterns namely Antoni A showing closely packed cells with small spindle shaped and densely stained nuclei. A whirled appearance Antoni type A cells is called Verocay bodies. In Antoni B, there is loose cellular aggregation of vacuolated pleomorphic cells. Combination of both types may be seen.[8]

From the discussion of case under investigation, trauma may be considered as an important etiological factor for auricular schwannoma as ear piercing is very common cosmetic practice.

Another important differential diagnosis is neurofibroma which can be differentiated from schwannoma as it has not well defined capsule and characterstic Verocay bodies are not present on histopathological study.[2]

Malignant peripheral nerve sheath tumors are also found in head and neck, most commonly in parotid gland and infratemporal fossa. They constitute 5% of all malignant soft tissue tumor and 15% of these tumors lies in head and neck.[9]

Final diagnosis of schwannoma is made on the bases of histopathological study and immunohistochemistry.

Treatment of choice is complete surgical excision and recurrence is rare.

Due to rare presentation, these tumors are usually not included in differential diagnosis of mass in auricle.

CONCLUSION

Due to their presentation as mass in pinna, they should be considered in differential diagnosis or miscellaneous category while classifying tumors of auricle.

REFERENCES

1. Topal O, Erbek SS, Erbek S. Schwannoma of the external auditory canal: a case report. Head Face Medicine 2007;3:6.
2. Lee DH, Kang HS, Park HJ. Schwannoma of the auricle. Otology and Neurotology, December 2012;33(9):e85-e86.
3. Morais D, Santos J, Alonso M, Ovelar Y. Schwannoma of the external auditory canal: an exceptional location. Acta Otorrinolaringol Esp 2007 Apr;58(4):169-170.
4. Fodor RI, Pastore PN, Frable MA. Neurilemmoma of the auricle: a case report. Laryngoscope 1977;87:1760-1764.
5. Xing SC, Lü HG. A case report of auricular neurilemmoma. Zhonghua Er Bi Yan Hou Tou Jing Wai Ke Za Zhi. 2008 Jun;43(6):450.
6. Lai JC, Tsai YL. Schwannoma of the auricle. B-ENT 2010;6(4):281-283.
7. Noh S, Do JE, Park JM, Jee H, Oh SH. Cutaneous schwannoma presented as a pedunculated protruding mass. Ann Dermatol 2011 October;23(Suppl 2):S264-S266.
8. Toss M. Natural history of vestibular schwannoma, Scott-Brown's Otorhinolaryngology, Head and Neck Surgery. 7th ed., Chapter 246, Great Britain: Hodder Arnold 2008;2: 3957-3966.
9. Martinez Devesa P, Mitchell TE, Scott I, Moffat DA. Malignant peripheral nerve sheath tumors of the head and neck: two cases and a review of the literature. Ear Nose Throat J 2006 Jun;85(6):392-396.

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