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SUBCUTANEOUS SCHWANNOMA OF THE EAR IN CHILDREN: A CASE REPORT

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SUMMARY
Plexiform schwannoma is an exceptional subtype of schwannoma. It is a benign nerve tumor originating in the Schwann sheath. It is often a solitary, asymptomatic nodule in the cutaneous or subcutaneous tissue, progressively increasing in size. Diagnosis is histological. We report the case of a superficial solitary plexiform schwannoma of the left ear in a 06-year-old girl. The literature is reviewed.

KEYWORDS: Schwannoma, benign tumor, surgicall.

INTRODUCTION

Schwannomas are benign, slow-growing nerve tumors that develop from schwann cells. Schwann cells play an important role in the propagation of nerve impulses, encapsulating nerve fibers of peripheral nerves, cranial nerves and nerves of the autonomic system. Head and neck schwannomas account for 25-45% of all schwannomas, and are dominated by vestibular schwannomas.[1,2] They are rarely found in the external auditory canal, and exceptionally in the pinna.[3]

PATIENT AND OBSERVATION

This is a 06-year-old girl who consulted for a left auricle nodule that appeared 4 years ago, was not painful and was progressively increasing in volume, causing cosmetic damage, and had no other associated otological signs (Figure 1). The patient reported a history of ear trauma at the age of 3. Clinical examination revealed an oval mass in the auricle with a firm consistency, painless on palpation and mobile in relation to the skin, measuring approximately 2 cm in long axis. The mass had no impact on hearing, and given its small size, no radiological examination was requested.

The mass had been excised under local anaesthetic. Dissection was easy and the entire mass was excised.

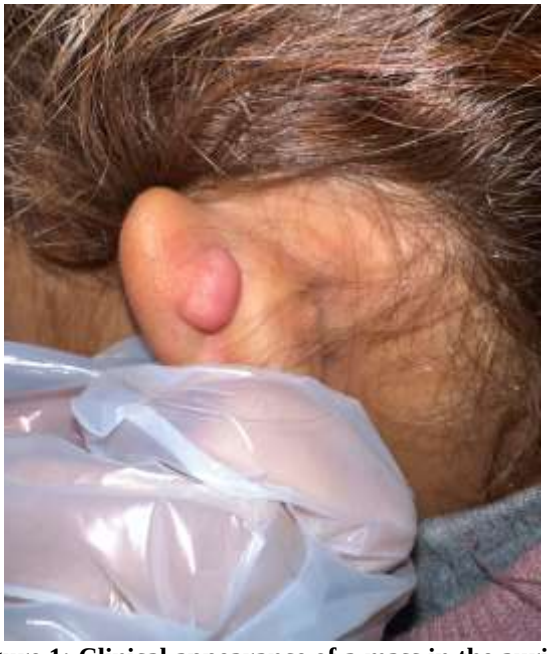

Figure 1: Clinical appearance of a mass in the auricle covered with normal-looking skin.

The histopathological study was in favor of a schwannoma (Figure 2), and the post-operative course was straightforward. No recurrence was noted at 06 months follow-up.

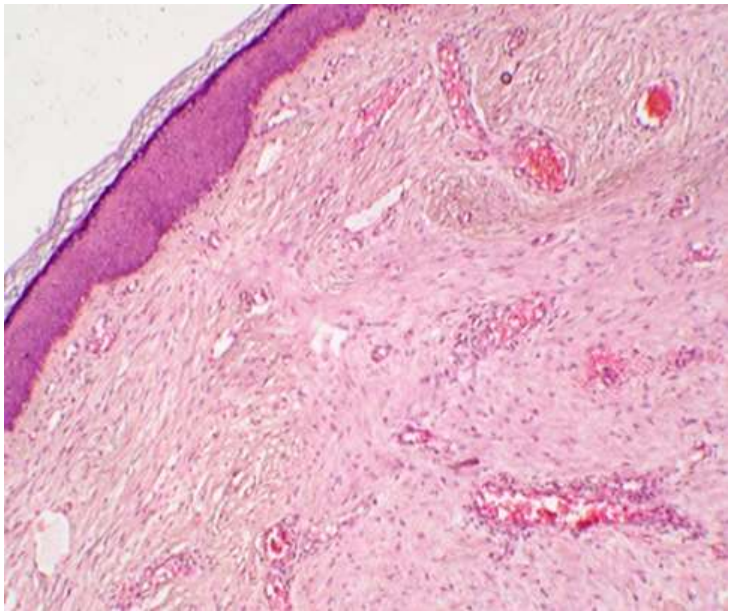

Figure 2: Auricle lined with a regular skin covering, the site of a well-limited fusocellular tumor proliferation. (HE, x50)

DISCUSSION

Schwannomas; also known as neurinomas, neurilemmomas or nerve sheath tumors; were first described in 1908 by Verocay, who gave them the name neurinomas, and in 1974 Batsakis gave them the name schwannomas.[4] They are benign, slow-growing tumors that originate from Schwann cells. These cells encapsulate peripheral, cranial or autonomic nerves, and help accelerate the propagation of nerve impulses. Schwannoma of the auricle was first described by Fodor et al in 1977.[5] Clinically, pinna schwannoma is generally asymptomatic, presenting as a slow-growing mass causing cosmetic damage.[3] Neurological signs such as pain or paresthesia may be present in a third of cases.[6]

The differential diagnosis is that of pavilion masses, and includes: cysts (epidermoid cyst, sebaceous cyst), benign tumors (chondroma, lipoma, fibroma and neurofibroma) and malignant tumors and their metastases (melanoma, carcinoma and sarcoma).[5] The treatment of choice is surgical excision. Dissection of this type of tumor is facilitated by the presence of a capsule that forms a smooth surface beneath the skin.

Since schwannomas arise from schwann cells, they affect the surface of the nerve, unlike neurofibromas, which arise from the nerve fibers themselves. As a result, some superficial schwannomas can be removed without necessarily sacrificing the nerve.[4]

According to the literature, in the case of isolated solitary schwannoma, trauma is considered an important etiological factor.[3] However, in the case of multiple schwannoma or schwannomatosis, we must think of type III neurofibromatosis, characterized by the presence of multiple cutaneous schwannomas, central nervous system tumors and other neurological complications, excluding the typical signs of neurofibromas. It is a rare disease, affecting only around 1 in 40,000 people.

Definitive diagnosis is based on histological findings: schwannomas are characterized by a proliferation of elongated spindle cells, with elongated nuclei often arranged in a palisade-like pattern called Antoni A type (Verocay corps), while those in which the cells are loose and irregularly arranged are called Antoni B type. Immunohistochemical studies often show positive staining for S-100 protein.[7] After complete surgical excision, local recurrence has rarely been reported.[8]

Case	Age	Gender	Localion
I. Chaari [1], et all.[9]	59y	Female	The thenar lodge
A. Daoudi et all.[10]	22y	Male	The forearm
Talel Badri et all.[11]	30y	12 female and 14 male	Solitary tumors were located in the limbs (10 cases), head (9 cases) and trunk (5 cases). Two patients had multiple tumours
Younes Essatara,et all.[12]	29y	Male	Penis
Amal Ankouz et all.[13]	50y	Female	Chest wall
Ilias Benchafai, et all.[14]	12y	Female	Ear lobule

CONCLUSION

Schwannomas of the auricle are benign tumors of nervous origin (schwann cells). Trauma is often incriminated as an etiological factor. They are treated surgically, and recurrence is rare after complete excision. Because of their presentation as a mass in the auricle, auricular schwannomas must be considered in the differential diagnosis of ear tumors.

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