

Auricular Schwannoma: An Uncommon Location

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Sir,

A 15-year-old male presented with a 2-year history of a slowly growing mass located in the external ear. The patient denied any history of trauma or associated pain. Physical examination revealed an erythematous, firm, pediculated, smooth-edged tumor measuring 2.5 × 2 cm in size, non-adherent to the underlying skin, painless on palpation and with telangiectasia [Figure 1]. The rest of the physical examination was unremarkable. The mass was excised surgically with primary wound closure. Intraoperative findings showed a firm, bilobulated tumor, free from underlying cartilage. Histopathological examination revealed numerous narrow cords of spindle-shaped cells separated by fibrous septa with type-A Antoni pattern [Figure 2]. Immunohistochemical staining for S-100 was positive. The diagnosis of schwannoma was made. The patient showed a favorable esthetic outcome. On a 6-month follow-up no recurrence was found.

Schwannoma, also known as neurilemoma, is a benign, encapsulated, slow-growing tumor of Schwann cell origin first described by Verocay in 1908.^[1,2] Approximately 25%–45% of schwannomas appear in the head and neck, whereas schwannoma of the external ear are uncommon; to our knowledge only six previous cases have been reported.^[3,4]

Schwannoma can affect any nerve in the body with a sheath of Schwann cells, understanding that because of its etiopathogenesis the olfactory and optic nerves are not affected.^[1] Intracranially, the vestibulocochlear nerve (VIII) is the most commonly affected, followed by sensory nerves, and finally motor nerves.^[4] The auricle is innervated by the great auricular nerve, the auriculotemporal nerve, the lesser occipital nerve, and the auricular branch of the vagus nerve. Based on the location of the tumor in the present case, the mass may have originated from the great auricular nerve. Its etiology is unknown; however, previous



Figure 1: Erythematous, firm, pediculated, smooth-edged tumor, non-adherent to underlying cartilage

trauma has been proposed as a possible predisposing factor.^[4] The average age of onset is between 30 and 60 years with a slight female preponderance.^[2] It usually presents as a firm, painless, encapsulated, slow-growing mass with a smooth surface. However, pain and paresthesia may be present in one-third of patients.^[4]

Histopathological examination shows the proliferation of Schwann cells in two different patterns: 1) the type-A Antoni pattern with clusters of compact cells with small spindle-shaped and densely dyed nuclei, also known as Verocay bodies and 2) the type-B Antoni pattern with aggregation of vacuolated pleomorphic cells. Likewise, a mixed pattern can be present. Immunohistochemistry reveals immunoreactive S-100 positive cells.^[2]

Differential diagnoses include auricular pseudocysts, epidermoid cysts, and neurofibroma.^[3] Unlike schwannomas, auricular pseudocysts consist of a fluctuant fluid-filled cavity in the intercartilaginous space and are not cystic. Epidermoid cysts usually present a dilated punctum, have a wider base, are freely movable, and can express a thick, cheesy material with foul odor. Neurofibromas are non-encapsulated tumors with a rubbery consistency.

Histopathological differentiation with neurofibroma should be made. Neurofibromas lack a well-defined capsule, numerous mast cells are present and characteristic Verocay bodies are absent.^[4]

The definitive diagnosis is made based on histopathological and immunohistochemical studies. The treatment of choice is complete surgical excision with low recurrence rate.^[5]

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

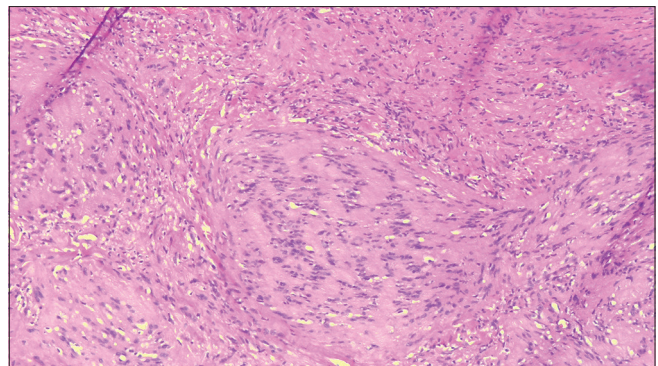


Figure 2: Narrow cords of cells, spindle-shaped, separated by fibrous septa, with type-A Antoni pattern (H and E, ×200)

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Conflicts of interest

There are no conflicts of interest.

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