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Original Research Paper

Oncology

SCHWANNOMA OF THE RIGHT ULNAR NERVE: A CASE REPORT

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ABSTRACT

Introduction: Schwannomas are rare tumours that most commonly arise from peripheral nerve sheaths. They are mostly situated in the extremities (upper more than lower) and are solitary. The majority of these tumours are benign, and malignant transformation is very rare. The diagnosis is mostly made after histopathological examination. We hereby report a case of schwannoma of the right ulnar nerve which we recently encountered. Complete excision of the tumour was done sparing the nerve.

Case report: A 70-year-old female presented to us with history of swelling over the left forearm from past 4 years. Local examination showed a tender ill-defined swelling over medial aspect of right forearm, measuring 6 × 5 cm. The swelling was excised completely sparing the ulnar nerve. The histopathology revealed it to be a schwannoma.

Conclusion: Schwannoma is a rare nerve sheath tumour frequently diagnosed after a histopathological examination of soft-tissue neoplasm. Resection of the tumour with nerve preservation is the treatment of choice as chance of recurrences is very low.

KEYWORDS :

Introduction

Nerve sheath tumours are tumours that can affect any nerve in the body. Neurofibromas and schwannomas are two benign nerve sheath tumours that commonly occur in adults. Neurofibromas are more common than schwannomas. Schwannomas affect all the age groups and grow very slowly[1].

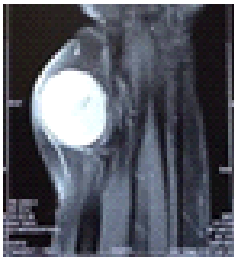
Most often, they are solitary and are frequently located in the extremities, with upper extremities being involved more commonly than lower extremities[2]. The treatment of choice is resection of the tumour. We hereby report an uncommon case of schwannoma of the right ulnar nerve which we recently encountered.

Case report

A 70-year-old female presented to us with history of swelling over the medial aspect of the right forearm for the last 4 years. There was no history of fever, weight loss or any preceding trauma. She had pain over the right forearm which radiated to the fingers.

On local examination, there was a swelling over the medial aspect of the forearm measuring 6 cm × 5 cm. It had ill-defined borders. The swelling was firm and tender on deep palpation. The swelling had free mobility horizontally and restricted mobility vertically. The skin over the swelling was free. There was no muscle weakness or axillary lymphadenopathy. A diagnosis of soft-tissue tumour was considered clinically. The patient was subjected to FNAC which showed a spindle cell neoplasm. Her x-ray of the forearm was normal. An MRI scan (Figure 1) was done showing a well-defined rounded enhancing lesion in the subcutaneous tissues of ulnar aspect of distal forearm- likely peripheral nerve sheath tumour.

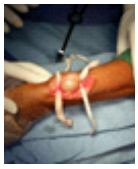
Figure 1:



MRI showing a well-defined rounded enhancing lesion in the subcutaneous tissues of ulnar aspect of distal forearm- likely peripheral nerve sheath tumour.

The patient underwent resection of the tumour (Figure 2). It arose from the ulnar nerve. The nerve was preserved, and the patient's postoperative recovery was uneventful.

Figure 2:



Intraoperative view of the tumour with the ulnar nerve preserved.

Her histopathology report showed an encapsulated lesion composed of elongated cells arranged in palisading pattern. These cells possessed wavy nuclei with pointed ends. The hyper-cellular (composed of spindle-shaped cells) Antoni A and the hypo-cellular areas (composed of loosely arranged cells with round-to-oval nuclei)Antoni B were seen. Numerous blood vessels present within the lesion- some with thrombosed lumina and others showed hyaline thickening of wall. Myxoid and edematous change was present. Mitosis was not seen. Findings were suggestive of Schwannoma.

Discussion

Although schwannomas are considered to be rare tumours, they are still the most common primary nerve sheath tumours of the hand and wrist. They account for about 5% of all the benign soft-tissue neoplasms[3].

Schwannomas are well-encapsulated benign tumours with a true capsule[4]. Microscopically, two types of cells have been described namely Antoni A and Antoni B, which are found in typical schwannomas[1,2]. The tumour cells are considered to be strongly immunopositive for the S-100 protein[1].

The most frequently affected peripheral nerve in schwannoma is the median nerve[5].

MRI is considered to be the most important radiological imaging technique for diagnosing the nerve sheath tumours, but differentiating between schwannomas and neurofibromas remains difficult even today[3].

Since the malignant rate and recurrence are very low, resection of the tumour after careful dissection is recommended[2]. There may

be slight impairment of the nerve function after the tumour is resected due to dissection and nerve retraction, but it returns to normal after a few months[2].

Conclusion

Schwannoma is a rare nerve sheath tumour frequently diagnosed after a histopathological examination of soft-tissue neoplasm. Resection of the tumour with nerve preservation is the treatment of choice as chance of recurrences is very low.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the editor-in-chief of this journal.

Authors contribution

All authors contributed to the conception, design, and preparation of the manuscript, as well as read and approved the final manuscript.

Competing interests

None declared.

Conflict of interests

None declared.

A.M.E

All authors abide by the Association for Medical Ethics (AME) ethical rules of disclosure.

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