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Case Report

Middle supraclavicular nerve schwannoma

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ABSTRACT

Supraclavicular nerve schwannoma is very rare tumor present in head and neck region. We are reporting an interesting case of Middle Supraclavicular nerve schwannoma. A 28 year old female patient presented to us with left supraclavicular swelling since 1 year. She was diagnosed differently initially four times as having connective tissue neoplasm, tuberculous lymphadenitis, reactive lymphadenitis and granulomatous lymphadenitis by different surgeons. She was referred to our institute from Akola for further management. After all investigations she was subjected to excisional biopsy and her histopathological report came suggestive of schwannoma. Post-op no neurological deficit was observed. She was discharged on fourth day post operatively.

Keywords: Supraclavicular nerve schwannoma, Cervical plexus schwannoma

INTRODUCTION

Schwannomas are rare tumors and most of them arise in head and neck region.[1] They are benign nerve sheath tumors and only about 5% are supraclavicular in location, mostly arising from brachial plexus in this location.[2] Very rarely these arise from cervical plexus nerves in this location.

They pose a great challenge to surgeons due to their rare occurrence, complex anatomical location and initial misdiagnosis most of the times.

CASE REPORT

A 28 year old female patient presented with left supraclavicular swelling since 1 year. The size of the swelling increased gradually from that of a peanut to that of a lemon.

There is no history of trauma, fever or systemic illness in the past except for a history of tubercular meningitis for which she took complete treatment of AKT for 6 months around 1 year back. She only complained of a visible smooth swelling in left supraclavicular region. No complaints of weakness or numbness or loss function of the ipsilateral upper limb. On examination she had 3.5 x 4 cm, firm, mobile, non-tender swelling in the left supraclavicular region. Neurological examination of the upper limb was completely normal.

Ultrasonography of local site suggested it to be either a neurogenic tumor or a lymph node not involving any vessel and not having any nerve entrapment.

CT scan of the head and neck region was suggestive of an enlarged lymph node which was well defined, well circumcised, non-enhancing, homogeneous soft tissue density, oval shaped in left supraclavicular region superior to sub-clavian vessels of size 6 x 4 x 3.3 cm with multiple enhancing enlarged cervical lymph nodes.

Patient was subjected to fine needle aspiration cytology 4 times with different results at all times:

1) Connective tissue neoplasm (? Schwannoma)

2) Tuberculous lymphadenitis

3) Reactive lymphadenitis

4) Granulomatous lymphadenitis

Surgery was done under general anesthesia and a horizontal incision parallel to clavicle was taken over the swelling. Incision deepened layer by layer, swelling identified and separated from surrounding structures very carefully. Mass separated from the nerve sheath of the nerve passing beneath it carefully and excised completely without any injury to the nerve. A suction drain was kept *in situ*.

Specimen was sent for histopathological examination and the report suggested it to be a schwannoma.

Post-operative period was uneventful with no residual neurological deficit in the ipsilateral upper limb. Patient is advised monthly follow up for the first 6 months and then 6 monthly follow up.

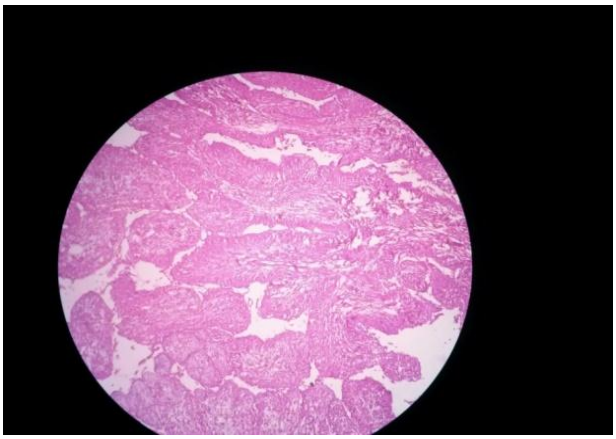

Figure 1: Histopathological view of the tumor i.e. schwannoma.

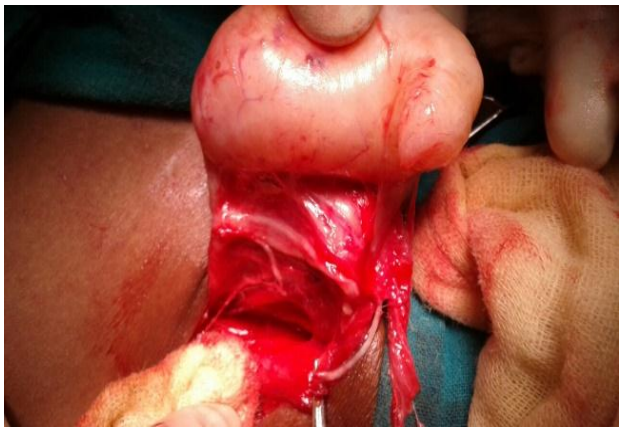

Figure 2a: Intra-op photo showing tumor and nerve.

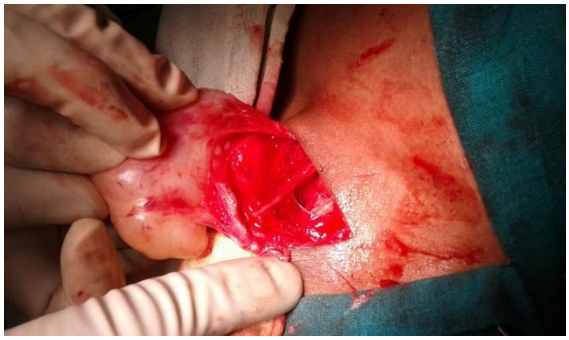

Figure 2b: Intra-op photo showing tumor and nerve.

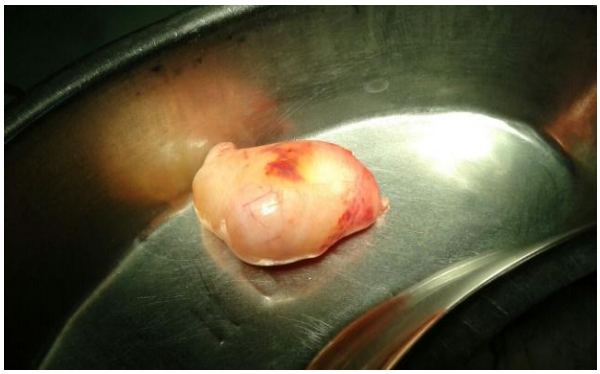

Figure 2c: Gross anatomy.

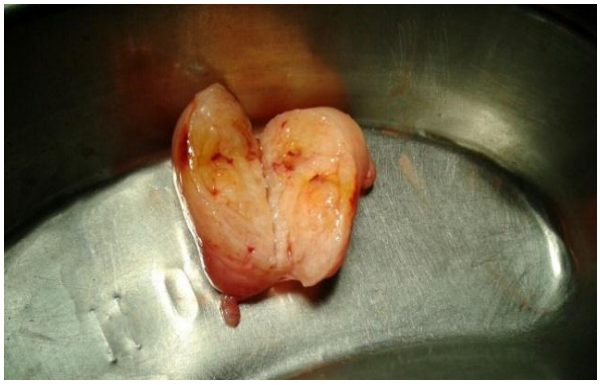

Figure 2d: Cut section of tumor.

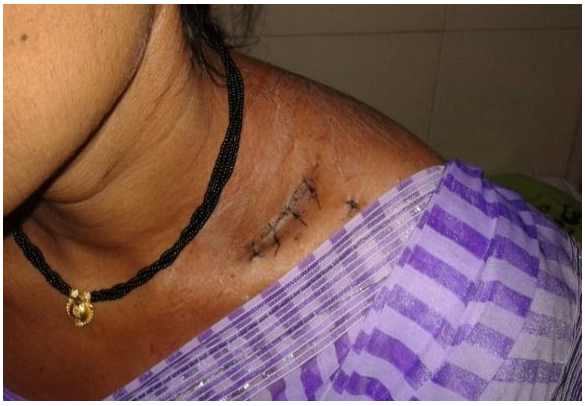

Figure 2e: Post-op photo.

DISCUSSION

Schwannomas are benign well encapsulated tumors arising from the nerve sheath.[3] Schwannomas usually present with local slow growing mass but may present with symptoms of nerve compression more commonly when arising from nerves of cervical plexus. Grossly these tumors are round, oval or plexiform and may appear yellow or gray.[4] They may present at all ages but most commonly occur at second to fourth decade of life.[5] Our case also presented in her twenties. Surgery is indicated for tumors causing neurological deficit, discomfort, progressively growing lesions with a suspicion of malignancy and to prevent or minimize neural damage. Complete resection of these tumors with preservation of surrounding nerves should be the goal. Neural fascicles surrounding the schwannoma are usually separable and enucleation of the tumor is almost always possible. In our case we were also able to dissect the nerve fascicles and successfully excise the tumor with preservation of all the nerve fascicles. High suspicion and inclusion of this entity in the differential diagnosis of supraclavicular swellings is a must for proper treatment of the patient.

CONCLUSION

Supraclavicular schwannoma is a rare entity and that too of middle supraclavicular nerve is very rare. Proper diagnosis of the lesion and information about the surrounding structures must be established before surgery as it can be easily mistaken as an enlarged supraclavicular lymph node as happened in our case and can result in an iatrogenic injury. Schwannoma should be included in the differential diagnosis of supraclavicular swellings and further management and surgery should be planned accordingly.

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Ethical approval: Not required

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