Schwannoma of the Radial Nerve at 1st WEB Space of Right Hand: A Rare Case Report

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Abstract: Schwannoma is a tumour that develops from peripheral nerve sheath. The diagnosis was based on histopathological examination. Surgical removal is usually curative. Asymptomatic character of tumour and its slow evolution remain essential factor in diagnosis delays. This tumour has a good prognosis with a low recurrence rate and potential for malignant transformation. They usually present solitary swelling along the course of nerve. However, multiple lesions may be present in case of NF-1, familial neurofibromatosis and sporadic schwannomatosis. Electromyography, MRI, Ultrasound are helpful in diagnosis. IN this paper, we present a 65 year old female referred to our hospital for swelling located at 1st web space of right hand dorsal aspect mainly. Total excision was performed. Histopathological examination of mass reveal typical features of schwannoma. After 6th month follow up patient was symptom free. No any paresthesia, numbness present in course of radial nerve.

Keywords: Schwannoma, Radial Nerve, 1st web space, Benign nerve Tumor, Rare tumor, Schwannoma MRI, Post op Schwannoma

1. Introduction
Schwannoma is most common benign tumor of peripheral nerves. It grows at expense of schwann cells of nerve sheath. It is also known as neurolemmas. Benign tumours involving peripheral nerves of upper extremity are uncommon. In upper limb, they may be mistaken for ganglia or carpal tunnel syndrome. It is an encapsulated lesion rarely causing neurological deficit and is usually extirpable.

Although they commonly appear as solitary lesions, occasionally there can be multiple lesions or associated with neurofibromatosis. The median nerve is one of the most affected peripheral nerves.

Schwannoma arising from schwann cells are usually benign tumours and comprise 0.8-2% of all hand tumors. Incidence is similar between both genders and tumour is most common in 3rd and 6th decades. The tumour is usually slowly growing and seen as a painless, asymptomatic mass for several years before diagnosed. However, it is unusual for schwannoma to exceed three centimeters in diameter. Pain, paresthesias and motor weakness may occur when tumour reaches sufficient size. Electromyography, MRI, Ultrasound is helpful in diagnosis. Surgical removal is usually curative.

2. Case report
A 65 year old woman presented with mass at 1st web space of right hand dorsal aspect mainly. On clinical examination, there was a painless solid mass approx.,5*4cm in length and depth, firmly attached to deeper structure. Pain was not severe enough to disturb sleep or hinder physical Activities. Swelling was non tender with no radiating pain. No any complaint of numbness or paresthesia noted in course of Radial nerve. No Tinel sign and phalen sign elicited. There is no objective motor and sensory deficit. Patient reported that she first palpated a nodule 6 month ago that grew up slowly to current size. There is no any family history of neurofibromatosis and associated clinical features.

Ultrasound shows 5*4cm homogenos hypoechoic lesion with minimal vascualrity s/o Benign Lesion. FNAC shows Benign spindle cell lesion. On X-ray soft tissue swelling seen no any bony invovlement seen. A longitudinal incision centered over tumor bulk performed.

Figure 1: Pre-op Picture.
Surgical exploration brought to light an encapsulated tumor firmly attached to Radial nerve, which was easily resected. Histopatho Examination s/o Benign nerve sheath tumour-schwannoma Sheets of spindle cells with hypercellular (ANTONI A) and hypocellular (ANTONI B)area with VEROCAY BODIES. No increase in mitosis and atypia seen. Followup up to 6 months for any neurological deficit.

4. Conclusion

Schwannoma are benign nerve tumours. Their diagnosis is often delayed by the absence of clinical symptoms due to the nervous adaptation to the increased volume of the tumor. Hence, the need to think about this type of tumour before any mass in the path of peripheral nerve.

References