



SCHWANNOMA OF THE ULNAR NERVE: A CASE REPORT

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INTRODUCTION

Schwannomas, also known as neurilemmoma, are benign tumors originating from Schwann cells along the course of a nerve. They are the commonest tumors of peripheral nerves, although the incidence in adults is only 5%^[1] and upper limb schwannomas contribute 19% of them.^[2] The growth of these tumors is slow, so they can remain as painless swellings for a few years before other symptoms appear.^[3] There is a higher incidence in the flexor surface of the upper limb, since the concentration of nerve fibers is higher over that region.^[4] Usually, this tends to occur in patients aged 30–60 years and has no race or sex predisposition.^[5-7] As they usually grow slowly and appear as painless swellings it may take many years before being correctly diagnosed.^[8,9] The onset of symptoms is usually associated with location rather than the size of the tumor as symptoms of neural compression arise with the growth of the mass.^[10]

KEYWORDS: Tumors, Ulnar nerve, Schwannomas.

CASE PRESENTATION

42 years old female presented with complain of swelling over right elbow for 3 years which was insidious in onset, slowly increasing in size to the current level, associated with pain over the site of swelling and radiating to the medial side of forearm with tingling and numbness over little finger and ring finger. She had difficulty in gripping from right hand but was able to do his daily activities. No history of fever, weight loss, constitutional symptoms, trauma and similar swelling in other parts of body.

On Examination. An approximately 4cm sized painless solid mass, pressure sensitive and firmly attached to the surrounding tissues. Slight percussion over the mass produced positive Tinel sign. The patient experienced mild numbness at the distribution of the ulnar nerve at the palm but no motor weakness or muscle atrophy were detected. Despite the large period of the mass existence (3 years) the patient remained asymptomatic.



Figure 1: Well Encapsulated Mass.



Figure 2: Intra-op Picture showing well encapsulated schwannoma within the fascicles of ulnar nerve in continuity.

Based on the long history of the patient, and the clinical and FNAC report, the resection of the tumor was decided. Under general anesthesia. The surgery was performed with the upper body rotated laterally and in supination so that the posteromedial elbow joint was in good view. A 7 cm-longitudinal incision was made from the anterior to the distal side of the mass. Further, to locate the root of the flexor muscles of forearm, a transverse incision was made, and then the skin was pulled anteriorly and fixed. Next, the ulnar nerve penetrating through the posterior side of the medial mass was exposed. We found a soft brown mass of 2.0×2.5 cm dimension covered by a white capsule. A complete excision of the mass was possible as it was clearly distinguishable from the surrounding unaffected nerves

and soft tissue. A neat removal of the mass allowed us to put enough pressure on the ulnar nerve, to wash the area of surgical intervention, and to suture the incision. When the mass was excised, we found partial bleeding at the center of the mass, and that it was filled with light yellowish tissue.

DISCUSSION

Despite rare, tumors should be taken into account in the differential diagnosis of masses in the upper limbs. In this context, it is important to remember that Schwannoma, in these cases, is the most common tumor. Schwannomas should be suspected in all cases where a slow growing, solitary mass is noted and evokes painful paresthesia on percussion.



Figure 3: Soft brown mass of 2.5cmx x 2.0cms in size.



Figure 3: Ulnar Nerve is intact with no intra-op damage to Fascicles.

Although most of these tumors show a positive Tinel sign, paresthesia, and transverse mobility their clinical identification is somehow subjective and for this reason, they are frequently misdiagnosed due to similarities with other soft tissue tumors as lipoma, fibroma, ganglion or xanthoma.^[8,11]

In this case, we treated an ulnar Schwannoma in the Elbow, which is quite rare. We incised the capsule and removed the mass intracapsular, as in other series.^[9,13]

CONCLUSION

Schwannoma is a rare tumor and if it is present over distal upper limb, they are easier to be noticed or palpated by the patient. Two types of schwannomas have been described. The first type involves well-encapsulated tumors in which they can be completely shelled out during the excision. The second one refers to tumors with fascicular involvement. So, a functional deficit may result with the tumor removal.^[6] The most consistent feature with schwannomas is an absence of any specific signs and it rarely impairs nerve function. It occurs more in the mixed nerves instead of pure sensory or motor nerves.

Competing Interests

The authors declare that they have no competing interests.

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