INTRODUCTION

Peripheral nerve tumors are rare, with an incidence of 1 per 100000 per annum (1). Primarily, nerve tumors are most commonly benign. They may arise from peripheral neural sheath or may be intrinsically or extrinsically. The two major types are schwannomas (neurilemmomas) and neurofibromas, the former being more common. Schwannomas arise from Schwann cells in peripheral nerve sheaths. They usually occur in the age group of 20 to 70 years. Median nerve is one of the common sites for schwannoma. Schwannomas are slow-growing tumors and push nerve fascicles aside as they grow (2). Schwannomas are generally asymptomatic. Large schwannomas may present with discomfort as the only presenting complaint of the patient. Parasthesia may be elicited on tapping the swelling. Magnetic resonance imaging and ultrasound may help in the accurate diagnosis. Surgical enucleation is the treatment of choice. Grossly the tumors are round or ovoid and encapsulated. Histologically, schwannomas are classified into Antoni A and Antoni B types according to the arrangement of the tumor cells (3). The most common differential diagnoses are ganglion, lipoma, or lymph node.

CASE REPORT

A 45-year-old female presented with a painless swelling in the volar aspect of distal 1/3rd of left arm of 3 months duration with complaints of gradual increase in size of the swelling associated with tingling since 1.5 months. There was no family history of neurofibromatosis and no associated clinical deficits or paraesthesia. Although similar cases have been reported in the past, such a case is a first-time occurrence in a rural setup as ours. No neurological deficits were noted on examination. Surgical removal was performed under 4.0X Loupe magnification by separating the nerve fascicles from the tumor. Histological examination revealed cellular schwannoma. Post-enucleation patient improved symptomatically with no neurological deficits or paraesthesia. Although similar cases have been reported in the past, such a case is a first-time occurrence in a rural setup as ours.

Key Words: Median nerve; Giant schwannoma; Forearm

DISCUSSION

Schwannomas are benign, slowly growing, encapsulated tumors (4) arising from the neurilemmal sheath, mostly solitary in occurrence. They may occur as multiple lesions and can affect one or several nerves. They are soft in consistency, mobile, mostly painless. They may hence be misdiagnosed as lipoma, fibroma, ganglion, or xanthoma. Cut section of schwannoma shows grey-white whorled appearance with or without areas of haemorrhage (5). Histologically, schwannomas consist of compact cellular lesions (Antoni type A) and loose, hypocellular myxoid lesions with microcystic spaces (Antoni type B) (6,7). Malignant schwannomas are extremely rare, accounting for only 2% of nervesheath tumors, and have a predilection for larger diameter peripheral nerves such as the brachial plexus or sciatic nerves. The tumor is initially painless and asymptomatic. It is hence noticed much after its onset. Pain and paraesthesia may occur when the tumor reaches sufficient size to compress the involved nerve (8). MRI gives information regarding tumor extent, anatomical location, tumor size, and relationship of peripheral nerve. This helps in appropriate planning of surgical therapy and preoperative diagnosis (9). EMG studies may reveal prolonged sensory latency and diminished or absent sensory-evoked potentials Hems et al. advocated the use of ultrasound to differentiate between solid and cystic lesions; In their review of 14 cases of MRI scans of peripheral nerve tumors, the T1 weighted images showed the tumors to be of intermediate signal and the T2 weighted images showed high signals with some heterogeneity (10). The appearances were not specific to peripheral nerve tumors, but the diagnosis was suggested if the lesion arose from a major nerve trunk. They felt MRI alone could not facilitate in differentiating schwannomas, neurofibromas and malignant peripheral nerve sheath tumors. The main aim of the treatment of benign nerve sheath tumors is to prevent axonal damage. Surgical excision is the treatment of choice for schwannomas as they do not invade the nerve fascicles (10,11).

Received: January 19, 2019, Accepted: February 24, 2019, Published: February 28, 2019

This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (http://creativecommons.org/licenses/by-nc/4.0/), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact reprints@pulsus.com
CONCLUSION

It should be considered in view of progression of symptoms or appearance of neurological deficits or if malignancy is suspected. Careful evaluation of proximal and distal nerve involvement is essential post-operatively for complete functional recovery as paraesthesia is the most common postoperative complication. In our case, in spite of it being such a big tumor, nerve fibres were easily identified, separated from the tumor and well preserved using microsurgical technique.

REFERENCES