

SCHWANNOMA OF THE MEDIAL PLANTER ASPECT OF THE FOOT: A CASE REPORT**Dr. Ramesh Kaundal¹, Dr. Sandeep Rajta², Dr. Seema³ and Dr. Mukesh Kumar^{4*}**¹M.S. General Surgery, Medical Officer, CH Theog.²M.S. General Surgery, Sr Resident IGMC Shimla.³M.S. General Surgery, Medical Officer, DDUZH Shimla.⁴M.S. General Surgery, Medical Officer, RH Bilaspur.***Corresponding Author: Dr. Mukesh Kumar**

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Article Received on 12/04/2021

Article Revised on 02/05/2021

Article Accepted on 23/05/2021

ABSTRACT

A schwannoma, also known as a neurilemmoma, is a type of benign peripheral nerve sheath tumor. It is the most common benign peripheral nerve sheath tumor of the upper extremity. Schwannomas of the common medial plantar nerve branch are rare solitary nerve sheath tumors. Fewer than a dozen cases have since been described in the literature, most of which were initially misdiagnosed as ganglion cysts. The case of a 57-year-old female who developed a painful mass on the plantar medial side of left foot for last one year and was gradually increasing in size, is presented. FNAC report was descriptive. Surgical excision was done under local anaesthesia and detailed histopath report revealed Schwannoma. Schwannoma usually present over head and upper extremity and rarely present over foot. It rarely has malignant transformation. Surgical excision is the treatment of choice and make patient symptom free and help in establishing the complete diagnoses. Even though schwannomas of the foot have been reported in literature, this case demonstrates an abnormal location on a branch of the medial plantar nerve.

KEYWORDS: Medial plantar nerve; Peripheral nerve sheath tumor; Schwannoma.**INTRODUCTION**

Schwannomas are benign, painless, firm nodules, 1–2 cm in diameter, that develop from the Schwann cells of peripheral nerve sheaths. They are tethered to a nerve and are therefore only laterally mobile.^[1] They are usually present over upper extremity and head and predilection to foot is rare.^[2] They are mostly benign and malignant transformation is rare. Patients usually present with the painful or painless swellings which gradually increasing in size. Surgical excision is usually indicated to eliminate the patient's symptoms and to properly diagnosis the tumor and Pathology report confirms schwannoma with H&E stain and subsequently reaffirmed with positive S-100 protein stain.^{[3],[4]} This case report include a 56 year old female patient with a swelling over planter medial aspect of forefoot.

CASE REPORT

A 56 year female patient presented to the surgery OPD in the month of Feb 2021 with the history of painful swelling in left forefoot without any comorbidity. On further detailed history its found that pt noticed the swelling about one and half year back which was painless and now for past few months swelling has increased in size and become painful which is altering her daily routine life and difficulty in walking. On examination there was swelling of size approx. 3*3 cm on

planter medial aspect of left foot just proximal to 1stmetatarsophlangeal joint which soft to firm in consistency slightly mobile in lateral direction and mild tenderness was present. FNA of the swelling was sent for cytology but report comes out to descriptive. Due to unavailability of the radio imaging (MRI) patient was planned for the excision. Excision of the soft tissue swelling was done under local anaesthesia after explaining the procedure and outcome and obtaining the consent from patient. On exploration there was a well circumscribed, encapsulated, glistening white mass of size 3*3 cm in subcutaneous plane and was densely adherent to the medial planter never (Fig3&4). It was originating from medial planter nerve. Due to dense adhesion medial planter nerve couldn't be preserved and sacrificed. After complete haemostasis wound was closed.

Specimen was sent for the histopathological examination and report revealed spindle cell neoplasm, schwannoma (Fig. 1&2).

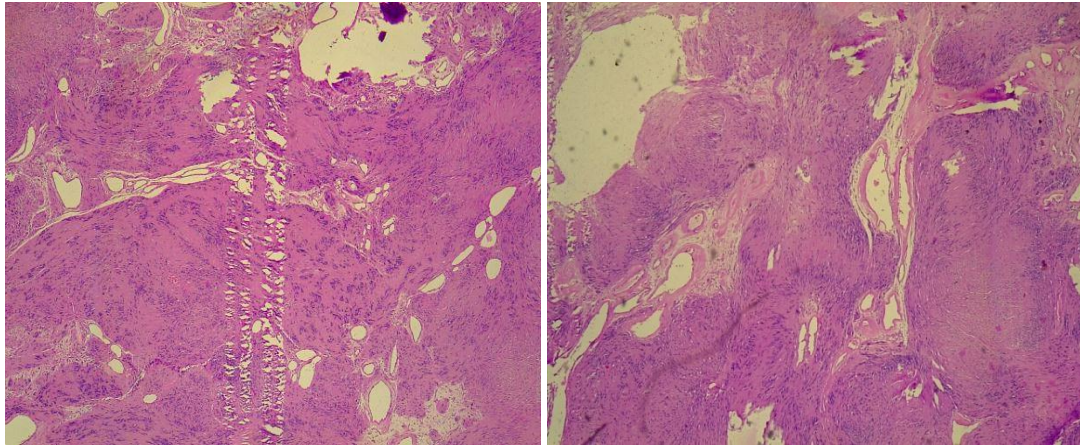


Fig. 1 and Fig. 2: showing Antoni A which are located between palisading spindle cell, confirming the diagnosis.



Fig. 3: Intraoperative Finding Showing Well Encapsulated Solitary White Glistening mass.



Fig. 4: Cut section of schwannoma.

DISCUSSION

The differential diagnoses of such cases include neurofibroma and benign vascular tumours such as angioleiomyoma. Cystic hygroma, followed by lipoma, haemangioma, ganglion, and myxoma, are also commonly seen.^[5] Schwannomas are derived from the neuroectoderm sheath and their main purpose is to form myelin sheaths in the peripheral nerves. Schwannomas are also categorized with a neurinoma, neurilemma or a neurofibroma however unlike these masses a schwannoma does not pass through the nerve and remains within the outer sheath. Schwannomas also do not present with underlying systemic disease, as does a neurofibromatosis.^[6] Schwannomas can develop anywhere in the body, however most present in major nerves trunks of the upper and lower extremities. In two large cohort studies by Das Gupta *et al.* and Spiegl *et al.* most of the schwannomas occurred in the head a neck region with only 11% being located in the foot.^[7,8] Schwannoma in relation to medial planter nerve is a rare presentation and a few cases has been reported in past. In one case review Wolpa *et al.* reported a 1 cm in diameter schwannoma that was, freely moveable and appeared to be adjacent to the extensor longus tendon to the fifth toe.^[9] In another study Fisher *et al.* reported a schwannoma about 2 cm in height and in width, on the dorsal lateral aspect of the hallux, proximal to the nail.^[10] In our case patient presented with the solitary swelling over medial planter aspect and on intraoperative finding it was in relation to medial planter nerve.

CONCLUSION

Schwannoma of medial medial planter nerve is very rare. Only 12 cases has been reported in English literature.^[11] They should always be considered as a differential diagnosis when ganglion cysts, fibromas, or neuromas are suspected. MRI is especially useful in identifying the exact location and size of the mass. Definite treatment and diagnosis is achieved by surgical excision and leads to complete removal of mass and resolve the symptoms.

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