ISSN 2321 – 7359 EISSN 2321 – 7367

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Medical Science

Recurrent Benign Multiple Schwannoma of the Posterior Tibial Nerve: A Case Report

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Publication History
Received: 18 October 2013
Accepted: 16 December 2013
Published: 8 January 2014

Citation
Md.Kaleemudin, Sabir Ali, Nageeruddin Shaik, Vamshi Krishna K, Satish Kumar D, Md. Asimuddin Ansari, Syed Salman Ahmed, Mahjabeen Salma. Recurrent Benign Multiple Schwannoma of the Posterior Tibial Nerve: A Case Report. *Medical Science*, 2014, 4(11), 18-20

ABSTRACT

We hereby report a case of recurrent benign multiple schwannoma of the posterior tibial nerve. This is to the best of our knowledge after going through the literature is a rare case. Two cases have been reported by American Orthopedics Foot and Ankle Society in the journal " Multiple Schwannomas of the Posterior Tibial Nerve", Foot and Ankle International XX(X) 1-5, by Author(s) : Karl M. Schweltzer, Duke university Medical center, Department of Orthopaedic Surgery.

Key Words: Schwannoma, Posterior Tibial Nerve, Multiple Recurrent Schwannoma.

1. INTRODUCTION

A schwannoma or neurilemmoma is a rare benign nerve sheath tumour of Schwann cells. Although more commonly appearing in isolation, multiple schwannomas occur and are frequently found in association with neurofibromatosis (*Stout AP; Takada et. Al*). A schwannoma and a neurofibroma can cause pain and compressive symptoms.

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pre operative photograph showing old scar and multiple swellings

A schwannoma is typically a solitary encapsulated mass that forms within the perineurium, while neurofibromas occur as multiple masses with nerve fibre involvement (Gominak et al. 1998). Thus a schwannoma can be carefully resected without compromise of the adjacent nerves where as neurofibroma generally requires sacrifice of the affected nerve. The malignant degeneration of the schwannoma is quite rare (Giannestras et al. 1975). Multiple schwnnomas are typically associated with neurofibromatosis type 2. Schwannoma is recognized as third form of neurofibromatosis. Schwannomas occur most commonly in the head and neck involving spinal nerves and the brachial plexus. Although rarely found in extremeties, they affect the sciatic, ulnar and tibial nerves (Stout AP: Tumors of the peripheral nervous system. 1989). Solitary schwannomas of the posterior tibial nerve causes compressive neuropathy and presents as Tarsal Tunnel syndrome.

2. CASE REPORT

A 31 years old male presented with severe pain,tenderness and paraesthesia of the sole, with nodular swelling of the medial aspect of the left ankle of 13 years duration. Patient was operated for the similar complaint 15 years back and was reported as Schwannoma. Before surgery, CT scan was done; reported as multiple soft tissue swellings on the medial side of the left ankle. Surgery was done on 01/11/2013, the entire mass with multiple swellings dissected out from the surroundings without injuring the main vessels and the nerves of region (Figures 1, 2, 3, 4). HPE (S-316 01/11/2013) reported as Schwanomma with no evidence of malignancy.

Figure 1

Figure 2

Figure 3

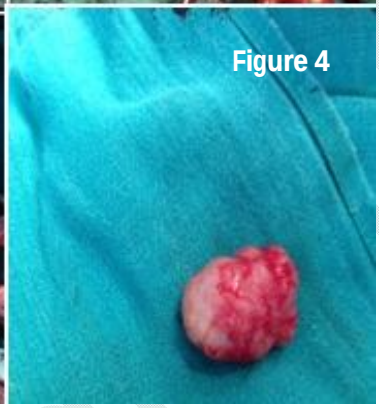

Figure 4

3. DISCUSSION

Schwannomas arise from the neural crest derived Schwann cell and are associated with neurofibromatosis type 2. Most common in the second through to the fifth decades of life and have no gender or racial predilection (Carpintero et al 2006, Verocay, 1910). Symptoms are referable to local compression of nerves or other structures. The first case of a schwannoma was discussed by Liebau, who stated that schwannomas should be looked for in all the cases where patient presents with pain, parasthesia of leg and foot, especially if all other injury has been excluded (Masson, 1943).

Schwannomas are well circumscribed, encapsulated masses that are attached to the nerve but can be separated from it. Their sizes ranges from 2-20 cms. Tumours form firm masses but may also have areas of cystic and xanthomatous change. These tumours can be diagnosed best by M.R.I and C.T scan but histopathology will give definitive diagnosis of schwannoma and establish whether the lesion is benign or malignant (Ogose, 1999). Treatment includes surgical excision without damaging the nerves or surrounding structures.

4. CONCLUSION

In conclusion schwannomas are rare solitary nerve tumours but can rarely be multiple, benign and recurrent also. They should always be considered as a differential diagnosis when Tarsal Tunnel syndrome, Neuromas. Nerve entrapment or radiculopathy is suspected.

ACKNOWLEDGEMENTS

I would like to thank Dr. CHANDRAMALA (professor), Head of Department Shadan Medical College, for professional guidance and valuable support, her advice in keeping my progress on schedule. I would like to express my appreciation to Dr Sarib Rasool Khan, Managing Director, Shadan Institute of Medical Sciences and Research Centre, for his support during the planning and development of this research work.

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