

# Schwannoma of the Superficial Peroneal Nerve

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## Abstract

A 53 year old male presented with a mass in the peroneal compartment of his right leg. He had altered sensation in this region. Excision biopsy revealed a schwannoma of the superficial peroneal nerve. Post-operatively he was left with a residual sensory loss over the lateral aspect of his right lower leg and foot. Schwannomas of the peroneal nerves are very rare, a search of the medline database, has revealed only two previous case reports of schwannomas of the peroneal nerves.

## INTRODUCTION

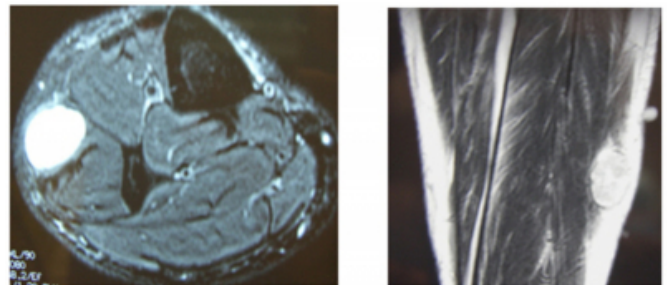
Schwannomas (or neurilemmomas) are, lobulated, encapsulated tumours, that arise from the neurilemmal cells in nerve sheaths (1). They usually arise in peripheral nerves or nerve roots. They may occur singly or in multiple, and have been found in a number of locations. They are normally benign, however they can rarely be malignant (2).

## CASE REPORT

An otherwise well 53 years old male presented with a mass in the lateral aspect of his right lower leg. He had had this mass for several years, and he had noticed it was increasing in size. He was complaining of some altered sensation on the outer aspect of his right foot. Examination revealed a mass deep in the peroneal compartment, that was moderately tender, Tinnel's sign was positive and there was reduced sensation along his outer right foot. Clinically this was thought to possibly be a lipoma. A previous unsuccessful attempt at excising this mass had been made prior to this presentation. An MRI scan was performed to investigate this mass further (see below), this showed a soft tissue lesion in the peroneal compartment, indenting into peroneus brevis and longus. The impression of the radiology report, was that it was a haemangioma.

## Figure 1

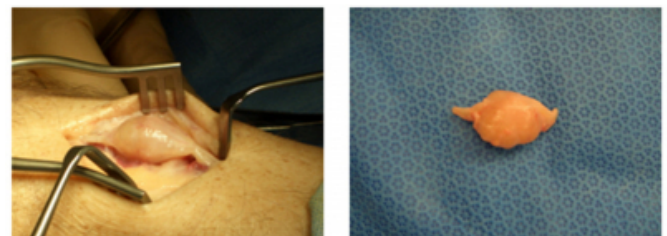
Figure 1: MRI Images of mass.



The decision was made to perform an excision biopsy of this mass. During the procedure, the lesion was found to be attached to the superficial peroneal nerve. It was around 3cm x 1.5 cm in size. The histology report described the sample as a schwannoma, that was benign, with no evidence of malignant change. Post-operatively the patient developed an area of paraesthesia on the lateral aspect of his right foot.

## Figure 2

Figure 2: Images of the mass at excision.



## DISCUSSION

A schwannoma of the superficial peroneal nerve is very rare. A search of the medline database revealed only two other

reports of a peroneal nerve schwannoma, neither of which were related specifically to the superficial peroneal nerve. There was no available data on the incidence of this occurrence.

The first report (2) describes a patient presenting with pain at his right fourth toe and at his dorsal fourth web space, this pain was worsened when pressure was applied at the mid-calf region. On surgical exploration, and subsequent histological investigation, a benign schwannoma of the deep peroneal nerve was found. Post-operatively his symptoms had completely abated.

The second report (3) describes a patient who had presented with an 8 year history of paraesthesia on the dorsal aspect of her right foot, and a mass in the lateral aspect of her popliteal fossa. A 30cm long tumour was excised from the lateral peroneal nerve. Subsequently the patient developed a

right sided foot drop, and paraesthesia anterior and lateral on the right lower leg.

In summary schwannomas are rare tumours of the nerve sheath, that are usually benign. They very rarely affect the nerves of the lower limb. Resection of the lesion can relieve the presenting symptoms, but may also cause further harm. They can be very difficult to diagnose clinically, and can often be mistaken for a lipoma.

### **References**

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