

# SCIATIC NEUROMA

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## ABSTRACT

We report a case of a sciatic neuroma presenting 4 months after above knee amputation. Patients developing neuroma following a limb amputation can present with stump pain which is commonly resistant to medical intervention. The duration of presentation of clinical symptoms are very variable. Diagnosis relies on clinical suspicion, accurate assessment, radiological imaging, surgical exploration and histopathology.<sup>1</sup> MRI provides a better soft tissue definition. The aim of treatment for symptomatic neuroma is pain relief and improvement of function. This is often achieved by surgical excision of neuroma.

**Key Words:** Sciatic neuroma, MRI, Nerve tumor

## Introduction

A neuroma is a growth of nerve tissue. Neuromas tend to be benign (i.e. not cancerous). Neuromas can arise from different types of nervous tissue, including the nerve fibers and their myelin sheath.<sup>1</sup>

The term is also used to refer to any swelling of a nerve, even in the absence of abnormal cell growth. It occurs following accidental or deliberate damage to the perineurium and is considered to be the nerve's attempt at regeneration. Sciatic neuroma could be one of the largest to be encountered in the body.<sup>1</sup>

Sciatic neuromas are one of the most common complications after above limb amputation. Post-amputation neuromas may experience pain which interferes with their mobility and affect quality of patient's life. Aim of treatment is to improve quality of life.<sup>1</sup>

## Case Report

A 20 year old young male patient referred to MRI department with history of distal stump pain. Following road traffic accident in 2015, he had left below knee amputation in may 2015, wound debridement thrice

in June 2015, wound coverage with free flap in September 2015.

Since the stump was too short to be fitted with a prosthesis, he required above knee amputation in November 2017. One month after this amputation he developed pain. Pain had gradually increased and now patient had severe pain affecting quality of his life. He took multiple analgesics but pain did not relieved.

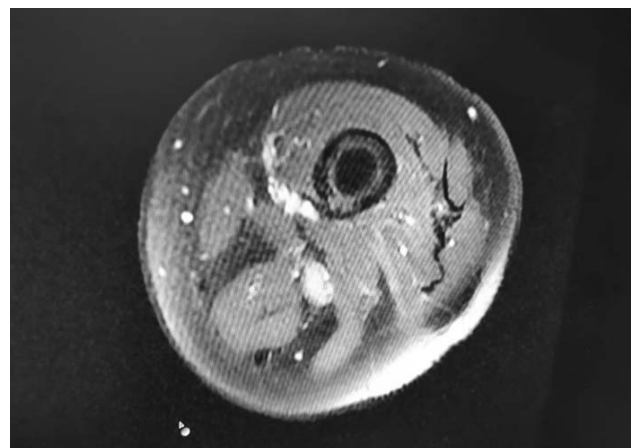


Figure 1

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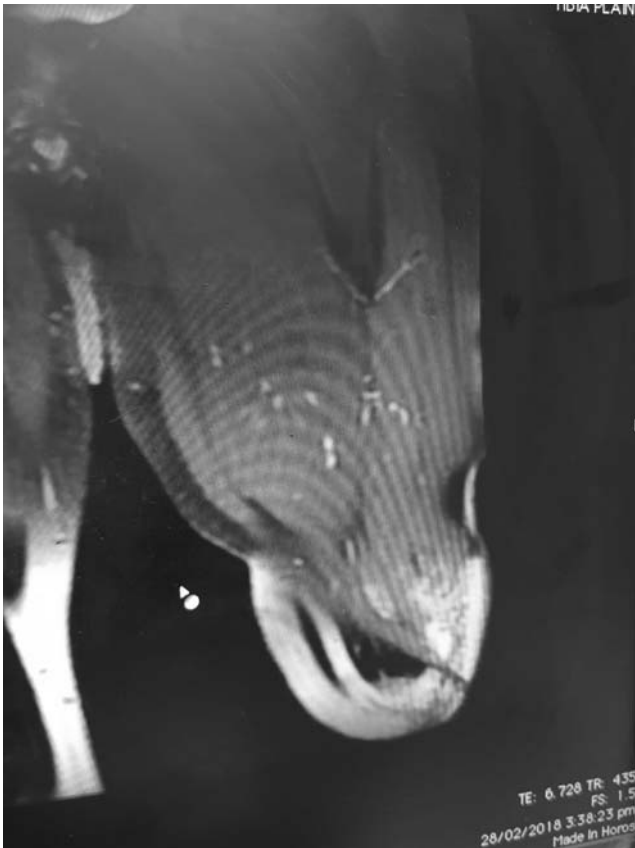


Figure 2

On examination stump was healthy, no evidence of erythema however there was mild swelling and tenderness at stump site. MRI was done in February 2018 which showed high signal intensity and thickening involving sciatic nerve in distal thigh for a length of 9.5 cm approximately 3.5 cm cranial to amputation stump. It showed low signal on T1, high signal on T2 and focal enhancement at distal end. Maximum thickness of nerve measured 1.4 cm representing paradox hypertrophy of sciatic nerve with possible enhancing neuroma at distal end.

On surgical exploration of the stump in prone position, the neuroma was dissected off from the surrounding tissues and neuroma was excised and nerve was buried deep into the muscles.

Postoperatively patient course was unremarkable and he was discharged home after 6 days. On follow-up, his pain scores showed remarkable reduction. However he required supported care by pain management team.

## Discussion

Most of the neuroma are clinically silent and some presents with distal Stump pain after above knee amputation. In this case the very short interval between amputation and stump pain was surprising. MRI is a modality of choice for detection of neuroma however surgical findings and histopathological examination confirmed the MRI findings.<sup>3</sup>


Amputation neuromas are often overlooked, as there are a multitude of other potential causes for stump pain in amputees such as phantom pain, joint problems, ischemic pain, referred pain, and poor prosthetic fit.<sup>2</sup>

The length of interval between neuroma formation and symptoms is very variable in different literature ranging from 8 days to twelve weeks and one and ten years (Jenson et al.,<sup>4</sup> Geraghty and Jones,<sup>5</sup> Falcon et al.<sup>6</sup>) Variability's may be due to differences in the size of the neuroma in this case, the duration of symptom and surgery is very short. The use of ultrasound, computed tomography (CT) and MRI in the detection of neuroma preoperatively has been widely reported. MRI provides superior soft tissue definition than CT, therefore allowing clearer differentiation between neuromata and other causes of stump pain such as scar formation, soft tissue abscesses, osteomyelitis and nerve sheath tumors.

**Conflict of Interest:** None

## References

1. Kitcat M, Hunter JE, Malata CM. Sciatic neuroma presenting forty years after above-knee amputation. *The open orthopaedics journal*. 2009; **3**: 125.
2. Chasapi M, Salibi A, Wain R, Iyer S. A Rare Case of Triple Neuromas as a Cause of Chronic Stump Pain in an Upper Limb Amputee. *Eplasty*. 2016; 16.

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3. Daniilidis K, Stukenborg-Colsman CM, Ettinger M, Windhagen H. Huge sciatic neuroma presented 40 years after traumatic above knee amputation. *Technology and Health Care*. 2013; **21(3)**: 261-4.
  4. Jensen TS, Krebs B, Nielsen J, Rasmussen P. Phantom limb, phantom pain and stump pain in amputees during the first 6 months following limb amputation. *Pain*. 1983; **17(3)**: 243-56.
  5. Geraghty TJ, Jones LE. Painful neuromata following upper limb amputation. *Prosthetics and orthotics international*. 1996; **20(3)**: 176-81.
  6. Falcón CS, Falcón MD, Villaverde RR, Solano JL, Ortega SS. Amputation neuromas after neck surgery. *Dermatology online journal*. 2005; **11(2)**: 176-81.