

# WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

<u>Case Report</u> ISSN 2455-3301 WJPMR

## **NEGLECTED SCIATIC NERVE INJURIES (A REPORT OF 7 CASES)**

# El Maqrout Amine<sup>1</sup>\*, Rhouri F., Mekkaoui J.<sup>1</sup>, Boufettal M.<sup>2</sup>, Bassir R-A<sup>2</sup>, Kharmaz M.<sup>1</sup>, Lamrani M. O.<sup>1</sup> and Berrada M. S.<sup>1</sup>

<sup>1</sup>Department of Trauma and Orthopedic Surgery, Ibn Sina University Hospital, Faculty of Medicine, Mohammed V University of Rabat, Rabat, Morocco.

<sup>2</sup>Department of Anatomy, Faculty of Medicine, Mohammed V University of Rabat, Rabat, Morocco.



#### \*Corresponding Author: El Maqrout Amine

Department of Trauma and Orthopedic Surgery, Ibn Sina University Hospital, Faculty of Medicine, Mohammed V University of Rabat, Rabat, Morocco.

Article Received on 06/06/2024

Article Revised on 26/06/2024

Article Accepted on 16/07/2024

### INTRODUCTION

The sciatic nerve is the longest and thickest nerve in the human body, essential for the proper functioning of the lower back, buttocks, legs, and feet. When injured, it can cause intense pain, muscle weakness, and loss of function.

Neglected sciatic nerve injuries are often the result of a traumatic injury. However, they can also be caused by prolonged nerve compression due to poor posture, a tumor, or a herniated disc.

These injuries are considered neglected when they are not diagnosed and treated within the first 6 months following the initial trauma. This can lead to permanent nerve damage and severe complications.

The treatment of neglected sciatic nerve injuries depends on the location of the injury and the severity of symptoms. It may include medications to relieve pain, physical therapy to strengthen weakened muscles, or surgical intervention to repair nerve damage.

## MATERIALS AND METHODS

Seven patients with neglected sciatic nerve injuries were treated at our facility between 2016 and 2024. The average age of these patients was 24 years, ranging from 21 to 35 years, all of whom were male.

The main cause of the injuries was stab wounds. The left side was predominantly affected, with a prevalence of 71.43%. The injuries were mostly located in the thigh, with one in the buttock and one observed on the posterior aspect of the knee.

Neurological examination of the affected limbs primarily revealed paralysis of the common peroneal superficial (SPE) nerve, with complete sciatic nerve paralysis in two patients. Electromyography (EMG) results showed partial axonotmesis in the majority of patients, indicating isolated SPE nerve injury, while two patients had complete neurotmesis of the sciatic nerve. The average time to treatment was 6 months. Three patients underwent a nerve graft of the SPE from the contralateral external saphenous nerve, three patients received late end-to-end sutures with neurolysis, and one patient underwent double arthrodesis with transfer of the posterior tibialis.

After an average follow-up of 12 months, results were satisfactory for 66.67% of patients who received a SPE graft, good for those who had palliative treatment, while outcomes were modest for patients who underwent sutures with neurolysis.

#### FIGURES



Injury of the Great Sciatic Nerve.

#### DISCUSSION

The treatment is mainly based on nerve grafts, with endto-end sutures with neurolysis yielding poor results in cases of complete neglected sciatic nerve section, necessitating palliative treatment.<sup>[1-2-3]</sup>

Neglected sciatic nerve injuries are a rare but serious condition, primarily seen in young men and often caused by stab or gunshot wounds. The most common location of injuries is the thigh, although knee injuries have also been reported.<sup>[3-4]</sup>

Clinically, symptoms can vary and manifest as compression, interruption, or irritation of the sciatic nerve. Electromyographic examination is essential for assessing the extent of nerve damage, ranging from simple neurapraxia to complete neurotmesis.<sup>[4-5]</sup>

Treatment primarily relies on nerve grafts, which have shown positive outcomes in some patients. However, end-to-end sutures with neurolysis have not been as effective, and in cases of complete neglected sciatic nerve section, palliative treatment may be necessary.<sup>[2-3]</sup> A prompt and tailored approach is essential to minimize nerve damage and improve long-term outcomes for patients with neglected sciatic nerve injuries. A multidisciplinary approach involving specialists in neurology, surgery, and rehabilitation is often required to ensure optimal management of these complex cases.

#### CONCLUSION

Neglected sciatic nerve injuries are rare and require early intervention using microsurgical techniques to minimize potential sequelae. Despite appropriate treatment, outcomes can often be modest.

#### REFERENCES

- 1. Birch R. Nerves injuries of the lower limbs. Foot Ankle Surg., 1998; 4: 109-117.
- 2. Bleton R, Alnot JY, Oberlin C. Les lésions traumatiques du tronc du sciatique et de ses branches terminales. Rev Chir Orthop, 1993; 79: 205-217.
- Bleton R, Cesari B. Lésions traumatiques du sciatique. In : Les lésions traumatiques des nerfs périphériques. Paris : Expansion scientifique française, 1997; 115-125.
- Boulu P. Électromyographie et potentiels évoqués dans les pathologies de l'appareil locomoteur. EncyclMédChir (Éditions Scientifiques et Médicales Elsevier SAS, Paris), Appareil locomoteur, 1997; 14-001-R-10: 1-7.
- Danielsen N. Injury degeneration and regeneration. In: Operative nerve and reconstruction. Philadelphia: JB Lippincott, 1991; 109-131.
- 6. Dellon AL. Sensibility testing. In: Operative nerve and reconstruction. Philadelphia : JB Lippincott, 1991; 135-158.