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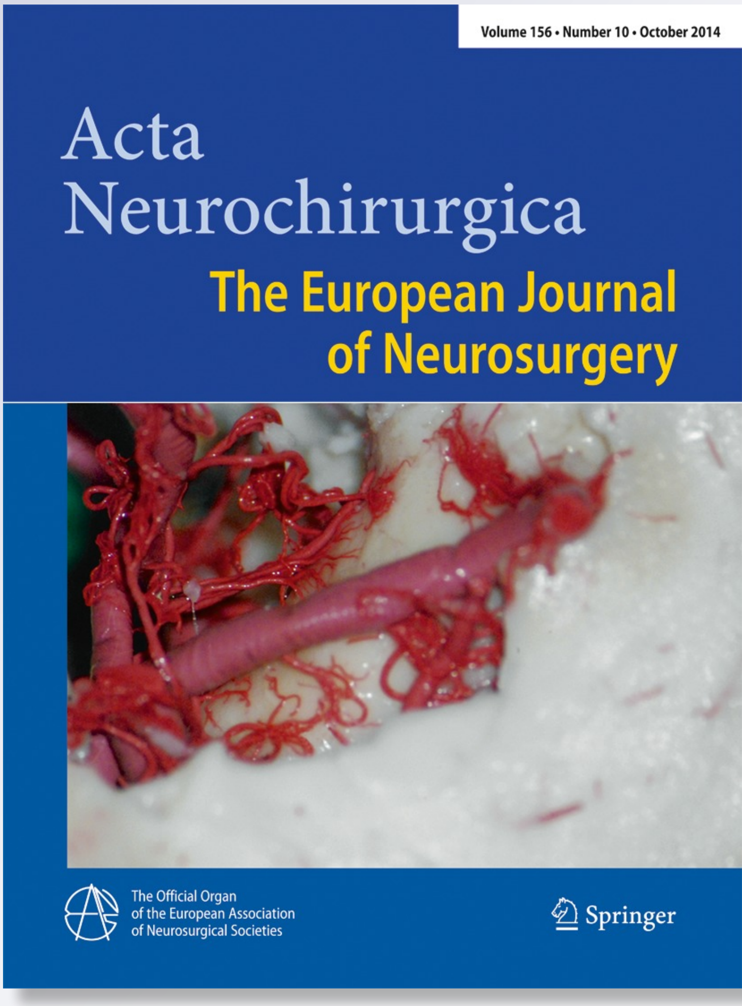


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CLINICAL ARTICLE - NEUROSURGICAL TECHNIQUES

# Neurolysis for secondary sciatic nerve entrapment: evaluation of surgical feasibility and functional outcome

**Islam Aboulfetouh · Ahmed Saleh**

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**Abstract**
*Background* The study included 11 patients; seven males and four females with mean age of 68.3±11 years. All patients had sciatic nerve entrapment: three had a penetrating injury, three suffered postoperative trauma, two had a crush injury, two had inadvertent injections and one was trapped in a machine belt. Clinical examination included: an evaluation of the extent of motor and sensory impacts according to the British Medical Research Council (BMRC) scale and the Semmes-Weinstein monofilament test; assessment of pain sensation using the visual analogue scale (VAS); electromyography; and nerve conduction velocitiey determination. The applied operative procedure for sciatic neurolysis was modulated according to the suspected site of sciatic nerve entrapment. At 6 and 12 months after surgery all patients were evaluated for recovery of motor and sensory function.
*Results* All patients passed the smooth intraoperative course within a mean operative time of 77.7±21 min. The mean duration of wound drainage and postoperative hospital stay was 2.6±0.7 and 4.8±0.8 days, respectively. Pain sensation showed progressive significant improvement in nine patients but decreased at time of discharge and remained stationary till 12-m post-operative (PO). Recovery of motor function showed progressive significant improvement at 6 and 12 months after sciatic nerve neurolysis. The frequency of patients having muscle power recovery and regained sensation was significantly higher at 6-m and 12-m PO as compared to preoperative grading with a significantly higher frequency at the 6-m grading compared to preoperative grading. Two patients showed no change of their muscle strength grade, while nine patients showed improvement for a total success rate of motor strength recovery of 81.8%. At 6- m PO five patients showed no change of their sensory group, while six patients showed improvement for a total success rate of sensation recovery of 54.5%. At 12-m PO ten patients had fullly recovered protective sensation for a success rate of 90.9%.
*Conclusion* Surgical exploration and neurolysis of cases with sciatic nerve entrapment is a safe and effective therapeutic modality with significant improvement of both motor and sensory functions without risk of additional deficit secondary to neurolysis.

**Keywords** Sciatic nerve entrapment · Surgical neurolysis

## Introduction

The sciatic nerve is one of the thickest peripheral nerves in the body. It is the largest branch of the sacral plexus, formed by the union of the ventral rami of the fourth and fifth lumbar and the first, second, and third sacral roots with contributions from the fourth sacral nerve root. The sciatic nerve leaves the pelvic cavity via the greater sciatic notch and, in most of the studied specimens, below the piriformis muscle. The sciatic nerve ends at the popliteal fossa after dividing into two terminal branches: the tibial and common peroneal nerves [1–3].

Anatomical relationships of the sciatic nerve make it vulnerable to traumatic injuries that are devastating, despite being

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uncommon to rare. Inadvertent injections are one of the most common causes of traumatic nerve injury, irrespective of the nerve affected or age of patients. Nerves may be injured by direct injection in the nerve tissue or induction of a foreign body reaction enclosing the nearby nerve [4, 5]. Hip replacement surgery (HRS) is one of the most frequent orthopedic surgical procedures; sciatic neuropathy is rare, but is a typical complication of HRS with a frequency ranging from 0.17 to 7.6%. HRS procedure-related sciatic neuropathies rank second after gluteal injection injury as the most frequent cause of traumatically-induced iatrogenic sciatic neuropathies [6, 7].

Traumatic hip dislocation and fracture-dislocation are not uncommon and their incidence is increasing. These dislocations are more often posterior than anterior. Failure to perform urgent reduction can result in post-traumatic avascular necrosis (up to 33%) as the femoral head is depleted of its blood supply; it can also result in nerve palsy (10–15%) caused by prolonged nerve traction [8, 9]. Heterotopic ossification is the formation of mature lamellar bone in soft-tissue sites outside the skeleton and is a known complication of hip dislocation with or without associated fracture and could be considered another cause for sciatic nerve entrapment [10, 11].

The current prospective study aimed to evaluate the surgical and functional outcome of sciatic nerve neurolysis in patients with secondary chronic sciatic nerve entrapment.

## Patients and methods

The current study was conducted at Neurosurgery Department, Benha University Hospital and Central Hospitals, Ministry of Health, KSA since March 2008 till January 2013 to allow a minimum postoperative follow-up period of 1 year. After approval of the study protocol by the Local Ethical Committee and obtaining fully informed written patients' consent; patients with clinical picture suggestive of sciatic nerve entrapment were enrolled in the study. Exclusion criteria included acute sciatic nerve injury, time lapse since trauma of less than 2 months, presence of concomitant spinal cord injury, and/or diabetes mellitus.

All patients underwent general examination for demographic data, type of initial trauma, and duration since appearance of clinical manifestations of nerve affection. Then patients were examined clinically for evaluation of the extent of motor and sensory affection according to the British Medical Research Council (BMRC) scale [12] and the Semmes-Weinstein monofilament test [13], respectively. All patients underwent evaluation of pain severity using 11-points visual analogue scale (VAS) with 0 indicated no pain and 10 indicated intractable pain. Pain scoring was determined preoperatively, at time of discharge, 6-m and 12-m postoperative (PO) [14]. All patients underwent electrophysiological studies including electromyography and nerve conduction velocities; preoperative, 6 and at end of 12 months of postoperative follow-up.

## Operative procedure

All surgeries were conducted under general inhalational anesthesia with patients entubated to allow for proper positioning. Patients were placed in a prone position with support beneath the pelvic region to provide flexion of the pelvis. The lower extremity to be operated upon was prepared. No tourniquet was applied and control of bleeding was achieved by bipolar diathermy and compression of wet gauze for 2 min. The operative procedure was modulated according to the suspected site of sciatic nerve entrapment.

In case of proximal entrapment an incision was made starting from the lateral side of the posterior iliac spine. The incision was then curved to the iliac wing and advanced along the superior border of the gluteus maximus muscle, extended along the greater trochanter and femoral shaft until the gluteal fold where it reached the midline of the posterior thigh. The gluteus maximus muscle was exposed and released from the iliotibial tract laterally and superiorly. It was then incised, leaving a 2–3 cm portion of muscle and tendon at its insertion to the greater trochanter to facilitate re-attachment during closure. Skin and muscle were retracted to the medial side and the sciatic nerve was found medially using initial blunt dissection and then sharp dissection so as to perform the intended neurolysis. If the injury was at the level of the thigh a lazy S-shaped incision was made medial to the lateral hamstring muscles in the midline of the posterior thigh. The sciatic nerve was exposed after separating the biceps muscle from the semitendinosus muscle. In case of distal entrapment at level of knee joint a broad portion of the incision crossed the fibular neck so that the nerve could be better explored. The short head of the biceps muscle was elevated and moved laterally away from the common peroneal nerve to allow wider room for visualization and dissection, which was continued to the lateral popliteal space where the nerve passed under the fibula. Nerve dissection continued by cutting the lateral gastrocnemius fascial extension and soleus muscle. The posterior edges of muscles and peroneal fascia were explored by sharp dissection (Figs. 1, 2, 3 and 4). All wounds were drained using a suction drain that was removed if collection was less than 10 cc in 24 h.

## Operative data

Operative data included duration of surgery, amount of bleeding and need for blood transfusion. The occurrence of intraoperative complications, failure to release the constricting material, need for nerve grafting of cut and anastomosis were reported.

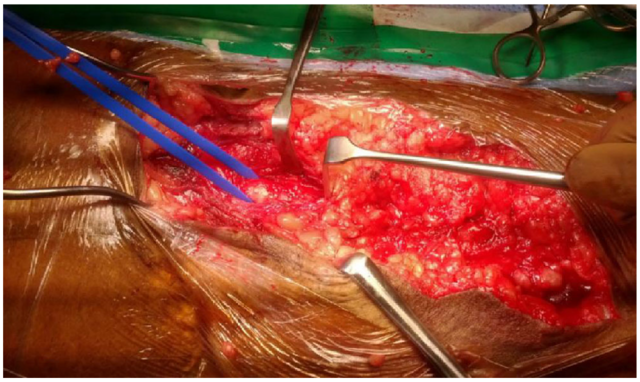

**Fig. 1** Showing exposure of the main trunk of sciatic nerve (hanged by the blue tape) at mid-thigh level with identification of the constricting band hanged by the distal retractor

### Postoperative care and follow-up

Duration of wound drainage, frequency and severity of wound complications and duration of postoperative hospitalization were recorded. At six and twelve months after surgery all patients were evaluated for recovery of motor and sensory function. Motor recovery was determined as full in patients with an M4-M5 muscle strength classification, satisfactory in patients with M3, fair in M1-M2 patients and poor in M0 patients. Sensory recovery was determined and patients of group 1 were considered to have a recovered sense of protection, group 2 if there is diminished light touch only, group 3 if there is diminished protective sensation, group 4 if there is loss of protective sensation and group 5 if sensation was not testable.

### Statistical analysis

Obtained data were presented as mean±SD, ranges, numbers and ratios. Results were analyzed using a Chi-square test ($X^2$ test). Statistical analysis was conducted using the SPSS

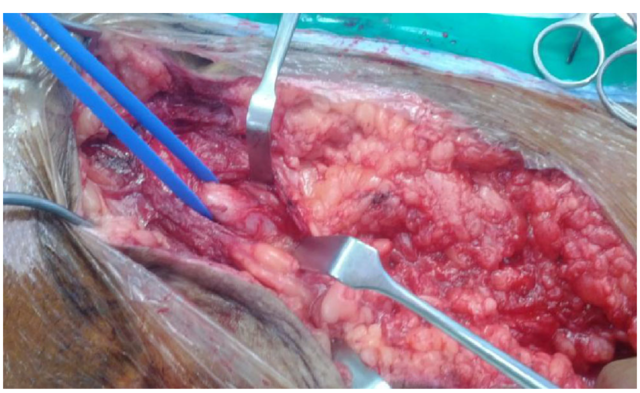

**Fig. 2** Showing piecemeal dissection and release of sciatic nerve (hanged by the blue tape) with release of the constricting band (hanged by the distal retractor)

**Fig. 3** Showing complete sciatic nerve (hanged by the blue tape) neurolysis

(Version 15, 2006) for Windows statistical package. *P* values <0.05 were considered statistically significant.

## Results

The study included 11 patients: 7 males (63.6%) and 4 females (36.4%) with mean age of 68.3±11; range: 41–72 years. In regards to the cause of the sciatic nerve injury, three cases (27.2%) had a thigh-penetrating injury that required wound exploration; during the acute phase there were no manifestations of injured sciatic nerve, but they appeared later and patients were clinically evaluated for determination of the extent of affection. Three patients (27.2%) manifested a clinical picture of sciatic nerve affection secondary to operative trauma during hip replacement surgery. Two patients (18.2%) had an inadvertent injection near the sciatic nerve and showed manifestations after a prolonged period; the cause was discovered during history taking. Another two patients had a crush injury affecting the thigh and emergency exploration revealed multiple muscle lacerations requiring repair, but there

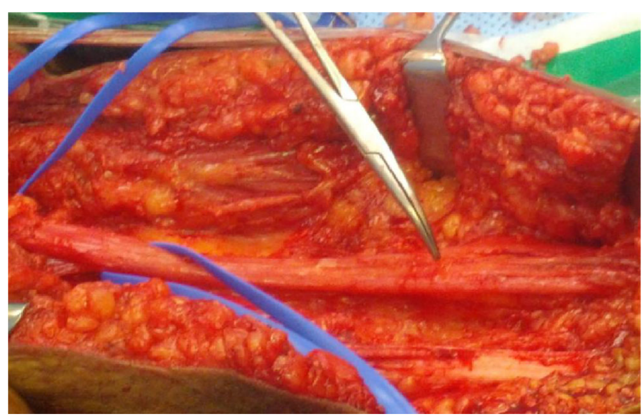

**Fig. 4** Showing sciatic nerve after exploration and external neurolysis from mid-thigh to bifurcation at the back of knee (signed by tip of the forceps)

was no evidence of nerve injury that appeared later. One patient had a right thigh machine-belt trapping injury. The mean duration till presentation suggestive of sciatic nerve injury was 3.5±0.8; range: 2–5 months; five patients (45.4%) presented after three months, four patients (36.4%) presented after 4 months, while one patient (9.1%) presented after 2 months and another after 5 months (Table 1).

Clinical examination showed a probable site for injury at the gluteal region in ***two*** patients with painful parasthesia radiating down the posterior thigh, lower leg and into the foot with weakness of the hamstring. Five cases had an injury to the upper thigh. In two of these cases the hamstring muscles were spared, but the other three cases had weakness in the short head of the hamstring. Preoperative clinical examination could not predict the site of injury in the remaining four cases.

Nine cases showed dorisflexion and eversion of the foot and extensors of toes, especially extensor hallucis longus, suggestive of peroneal injury. Tibial division of the sciatic nerve was affected in only two cases, manifested as weakness of planter flexion and inversion of the foot as well as toe flexion.

All patients passed the smooth intraoperative course without intraoperative complications. All constricting materials were excised and nerves were successfully released. No patients required nerve grafting or cut and end-to-end anastomosis. Mean operative time was 77.7±21; the range was 45–100 min. The mean duration of wound drainage was 2.6±0.7; range: 2–4 days. The mean duration of postoperative hospital stay was 4.8±0.8; range: 4–6 days (Table 2).

Postoperative collective pain visual analog scale (VAS) scores showed a gradual decrease with time of follow-up and were significantly decreased ($p<0.001$) at the time of discharge, at 6-m PO and at 12-m PO. Pain scores determined at 12-m PO were significantly lower compared to that determined at time of discharge ($p<0.001$) and at 6-m PO ($p=0.046$) with significantly lower ($p<0.001$) scores at 6-m compared time of admission (Fig. 5). Individually, PO pain VAS scores showed a significant decrease in all patients except two who showed a stationary pain score at 6 and 7 points, respectively, since the time of admission till the end of the follow-up.

All patients showed improved nerve conduction velocity at 6-m PO and further progress was observed at 12-m PO. This improvement manifested clinically as PO improvement of both muscle strength and sensation. Preoperative muscle strength evaluation according to the BMRC scale determined four patients had an M3 grade, four had an M2 grade and three patients had an M1 grade. Recovery of motor function showed progressive significant improvement at 6 and 12 months after sciatic nerve neurolysis. At 6-m PO three patients had full

**Table 1** Patients' enrolment data

| | | | Number | Mean±SD |
|---|---|---|---|---|
| Age (years) | Strata | <50 | 3 (27.2%) | 42.7±2.1 (41–45) |
| | | 50–60 | 4 (36.4%) | 53.8±2.8 (51–57) |
| | | >60 | 4 (36.4%) | 68.3±3 (65–72) |
| | Total | | 11 (100%) | 56±11 (41–72) |
| Gender | Males | | 7 (63.6%) | |
| | Females | | 4 (36.4%) | |
| Cause of injury | Penetrating injury | | 3 (27.2%) | |
| | Operative trauma | | 3 (27.2%) | |
| | Crush injury | | 2 (18.2%) | |
| | Inadvertent injection | | 2 (18.2%) | |
| | Machine belt trapping | | 1 (9.1%) | |
| Duration since injury (days) | Strata | 2 months | 1 (9.1%) | |
| | | 3 months | 4 (36.4%) | |
| | | 4 months | 5 (45.4%) | |
| | | 5 months | 1 (9.1%) | |
| | Total | | 11 (100%) | 3.5±0.8 (2–5) |

Data are presented as number & mean±SD; percentages & ranges are in parentheses

**Table 2** Operative and immediate postoperative data

| | | | Number | Mean±SD |
|---|---|---|---|---|
| Operative time (minutes) | Strata | ≤60 | 4 (36.4%) | 53.8±7.5 (45–60) |
| | | >60–90 | 3 (27.2%) | 53.8±2.8 (75–90) |
| | | >90 | 4 (36.4%) | 98.8±2.5 (95–100) |
| | Total | | 11 (100%) | 77.7±21 (45–100) |
| Duration of wound drainage | 2-days | | 5 (45.5%) | |
| | 3-days | | 5 (45.5%) | |
| | 4-days | | 1 (9 %) | |
| | Total | | 11 (100%) | 2.6±0.7 (2–4) |
| Duration of postoperative hospital stay (days) | 4-days | | 4 (36.4%) | |
| | 5-days | | 5 (45.5%) | |
| | 6-days | | 2 (18.2%) | |
| | Total | | 11 (100%) | 4.8±0.8 (4–6) |

Data are presented as number & mean±SD; percentages & ranges are in parentheses

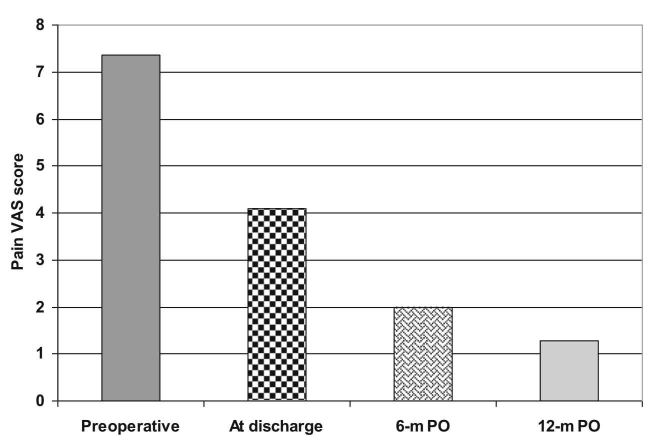


**Fig. 5** Mean pain VAS score of sutudied patients determined throughout the study period

**Table 3** Postoperative motor outcome as judged by the British Medical Research Council scale for muscle strength in comparison to preoperative scoring

| | | Preoperative | Postoperative | |
|---|---|---|---|---|
| | | | 6-m | 12-m |
| Normal power (M5) | | 0 | 1 (9.1%) | 3 (28.2%) |
| Movement against gravity and resistance (M4) | | 0 | 2 (18.2%) | 4 (36.4%) |
| Movement against gravity (no resistance) (M3) | | 4 (36.4%) | 4 (36.4%) | 2 (18.2%) |
| Movement with gravity eliminated (M2) | | 4 (36.4%) | 3 (28.2%) | 1 (9.1%) |
| Flicker (M1) | | 3 (27.2%) | 1 (9.1%) | 1 (9.1%) |
| Total paralysis (M0) | | 0 | 0 | 0 |
| Significance of difference | Versus preoperative grading | | $X^2$=13.115; $p$=0.0008 | $X^2$=42.376; $p$=0.0001 |
| | Versus 6-m postoperative grading | | $X^2$=15.138; $p$=0.0007 | |

Data are presented as number; percentages are in parentheses

recovery (one patient was M5 and three patients were M4), four patients had satisfactory recovery (M3) and four patients had fair recovery (three patients were M2 and one patient was M1). The frequency of patients that had muscle power recovery was significantly ($X^2$=13.115; $p$=0.0008) higher at 6-PO compared to preoperative grading. At 12-m PO seven patients had full recovery (three patients were M5 and four patients were M4), 2 patients had satisfactory recovery (M3) and two patients had fair recovery (one patient was M2 and one patient was M1). The frequency of patients that had muscle power recovery was significantly higher at 12-m PO compared both to preoperative grading ($X^2$=42.376; $p$=0.0001) and at 6-m PO grading ($X^2$=15.138; $p$=0.0007) (Table 3, Fig. 6). Unfortunately, two patients showed no change in their muscle strength grade; one M1 and one M2 grade, while the remaining nince patients showed improvement for a total success rate for recovery of motor strength of 81.8%.

Preoperative sensory function evaluation as judged by the Semmes-Weinstein monofilament test showed that five patients had diminished light touch (Group 2), another five patients had diminished protective sensation (Group 3) and only one patient had loss of protective sensation (Group 4). Postoperative evaluation of sensory function showed significant improvement at 6-months after sciatic nerve neurolysis as one patient regained normal sensations (Group 1), six patients recovered sensory function despite still having only diminished light touch sensation (Group 2), four patients had diminished protective sensation (Group 3), but only one patient still had no protective sensations (Group 4). The frequency of patients that had improved sensory function was significantly ($X^2$=6.523; $p$=0.023) higher at 6-m PO compared to preoperative grading. At 6-months PO two patients had regained normal sensations (Group 1), seven recovered sensory function despite still having only diminished light touch sensation (Group 2), and one patient had diminished protective sensation (Group 3); only one patient still had no protective sensations (Group 4). The frequency of patients that had improved sensory function was significantly higher at 12-m

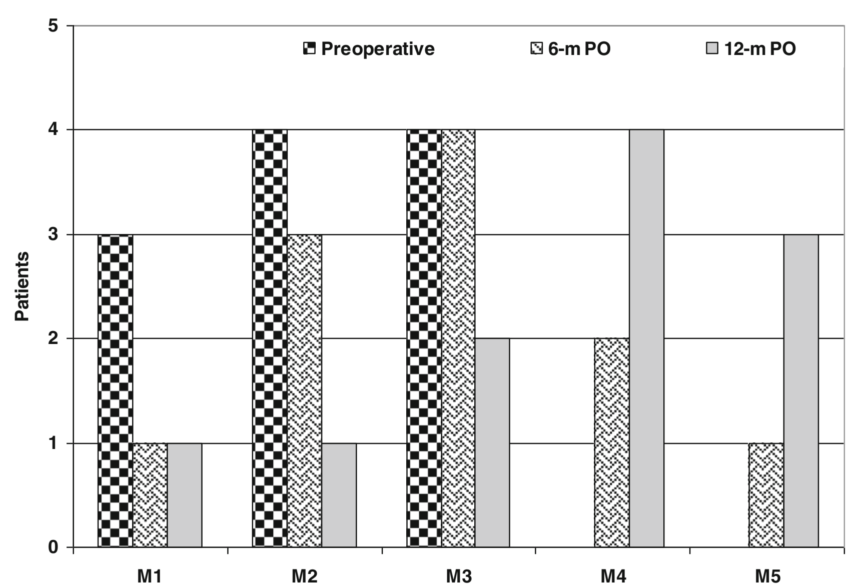


**Fig. 6** Patients' distribution according to BMRC motor strength grading determined at 6- and 12-m after surgery compared to preoperative distribution d

**Table 4** Postoperative sensory outcome as judged by the Semmes-Weinstein monofilament test in comparison to preoperative scoring

| | | Preoperative | Postoperative | |
|---|---|---|---|---|
| | | | 6-m | 12-m |
| Normal sensation (Group 1) | | 0 | 1 (9.1%) | 2 (18.2%) |
| Diminished light touch (Group 2) | | 5 (45.5%) | 6 (54.5%) | 7 (63.6%) |
| Diminished protective sensation (Group 3) | | 5 (45.5%) | 3 (27.3%) | 1 (9.1%) |
| Loss of protective sensation (Group 4) | | 1 (9%) | 1 (9.1%) | 1 (9.1%) |
| Significance of difference | Versus preoperative grading | | $X^2$=6.523; $p$=0.023 | $X^2$=36.228; $p$=0.0005 |
| | Versus 6-m postoperative grading | | $X^2$=5.462; $p$=0.037 | |

Data are presented as number; percentages are in parentheses

postoperative compared to both preoperative grading ($X^2$= 36.228; $p$=0.0005) and 6-m grading ($X^2$=5.462; $p$=0.037) (Table 4, Fig. 7). Unfortunately, five patients showed no change in their sensory group; one of group four, another of group three and three of group 2, while the remaining six patients showed improvement for a total success rate for recovery of sensation at 6-m PO of 54.5%. At 12-m PO ten patients had fully recovered protective sensation for a total success rate for recovery of sensation, at 12-m PO of 90.9%. Differential patient data and sciatic nerve neurolysis outcome is shown in Table 5.

## Discussion

Irrespective of the underlying cause and location of entrapment, all studied patients passed smooth intraoperative and immediate postoperative courses without complications and no patient required nerve grafting or developed additional deficit secondary to surgery. Collectively, the distribution of patients among grades of motor strength scoring and sensory grouping was significantly improved compared to preoperative ones with an 81.8% success rate for improving motor strength and a 54.5% success rate for improved sensory function. These data point to the safety and effectiveness of sciatic nerve neurolysis as a therapeutic modality for cases of secondary chronic sciatic nerve entrapment.

The obtained results supported previously reported literature concerning the outcome of surgical sciatic nerve neurolysis for varied causes of nerve compression. Montgomery et al. [15] presented a case of developed intense and focal pain in the buttock radiating down the leg with nerve palsy after cemented total hip replacement(THR); surgical exploration showed tight adhesions tethered the nerve behind the level of the femur neck over a length of 4 cm, and after external neurolysis nerve stimulation proximal to the lesion revealed strong conduction distally for both divisions of the sciatic nerve. Two days later the patient was discharged pain free with a full neurological recovery.

Issack et al. [16, 17] retrospectively evaluated the effect of sciatic nerve release on sciatic neuropathy associated with acetabular fractures and reconstructive acetabular surgery and documented that sciatic neurolysis decreases the sensory symptoms of preoperative sciatic neuropathy, but motor symptoms are less likely to be resolved. Poptodorov et al. [18] described a case of sciatic nerve entrapment neuropathy

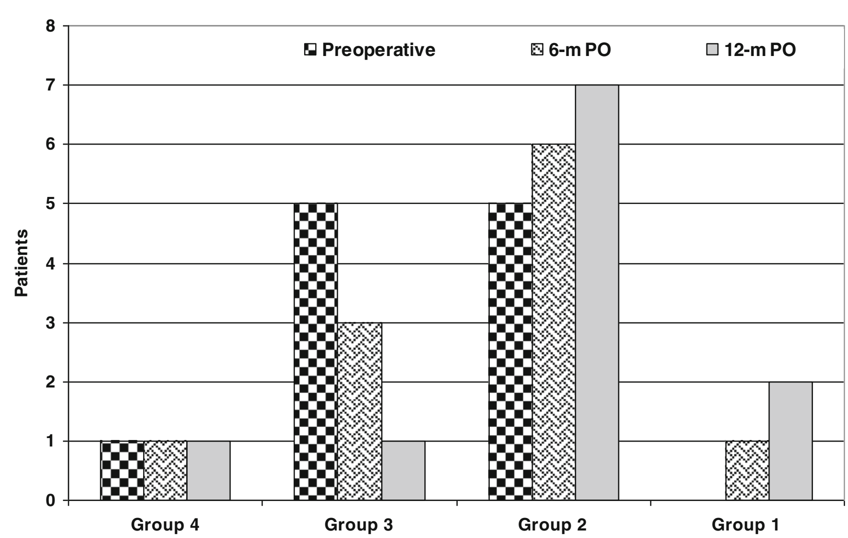


**Fig. 7** Patients' distribution among Semmes-Weinstein sensory function test groups determined at 6- and 12-m after surgery compared to preoperative distribution

**Table 5** Patients demographic, clinical and operative data and outcome at 12-m

| No. | Age | Time since trauma | Muscle strength | Sensory function | Etiology | Operative findings | Outcome at 12-m |
|---|---|---|---|---|---|---|---|
| 1 | 57 | 2 | M3 | G2 | Operative trauma | Adherent scar | Complete neurolysis improved M3——M5 G2——G1 |
| 2 | 55 | 3 | M2 | G3 | Machine belt trapping injury | Constriction band compressing the nerve at mid thigh | Complete neurolysis improved M2——M4 G3——G2 |
| 3 | 51 | 4 | M2 | G2 | Penetrating injury | Tissue injury healed by fibrosis encasing the nerve | Complete neurolysis improved M2——M5 G2——G1 |
| 4 | 52 | 3 | M3 | G3 | Inadvertent injection | Nerve was enclosed in mass of foreign body reaction | Complete neurolysis improved M3——M4 G3——G2 |
| 5 | 69 | 4 | M1 | G3 | Operative trauma | constriction of the sciatic nerve by a cerclage | Complete neurolysis improved M1——M1 G3——G2 |
| 6 | 65 | 3 | M3 | G2 | Crush injury | Compression of the nerve by penetrating bony spicule | Complete neurolysis improved M3——M4 G2——G2 |
| 7 | 72 | 3 | M2 | G3 | Operative trauma | Constriction secondary to healing by fibrosis | Complete neurolysis improved M2——M3 G3——G2 |
| 8 | 67 | 4 | M1 | G2 | Crush injury | Compression of the sciatic nerve by a small, prone foreign body | Complete neurolysis improved M1——M2 G2——G2 |
| 9 | 45 | 3 | M3 | G4 | Penetrating injury | Nerve was enclosed in healing by fibrosis | Complete neurolysis improved M3——M4 G4——G4 |
| 10 | 41 | 4 | M1 | G2 | Penetrating injury | Nerve entrapment by healed injured muscle | Complete neurolysis improved M1——M3 G2——G2 |
| 11 | 42 | 5 | M2 | G3 | Inadvertent injection | Nerve was enclosed in mass of foreign body reaction | Complete neurolysis improved M2——M3 G3——G3 |

due to post-traumatic heterotopic ossification in a patient who developed right lower limb pain and weakness progressing for one year after a blunt trauma and a hematoma of the hip; surgical exploration discovered an osseous tunnel in the fascial plane between the semitendinous and biceps femoris muscles, encasing the sciatic nerve; under optical magnification the ectopic bone was totally removed and decompression of the sciatic nerve was achieved.

Topuz et al. [19] retrospectively evaluated outcomes of surgical neurolysis of sciatic nerve in patients with buttock-level traumatic injury and injuries due to intramuscular injections and found the outcome was excellent in 24.1% of the patients, good in 48.2% and fair-to-poor in the remaining patients. He concluded that if clinical evidence points to nerve injury the nerve may be explored without waiting for electrophysiological confirmation, as delay contributed to poor outcome in many of the cases. Marchese et al. [20] described a case of developed severe neuropathic pain and foot-drop in the left leg following resurfacing arthroplasty of the left hip; at exploration a PDS suture was found passing through the sciatic nerve at several points over 6 cm and terminating in a large knot. After release of the suture and neurolysis there was dramatic and rapid improvement of the neuropathic pain and of motor function.

Kakati et al. [21] studied 18 patients that had injection nerve palsy who underwent neurolysis after a mean duration since injury of 5.2 months and reported good outcome in 10 patients. Kakati et al. concluded that the outcome of injection nerve palsy is generally good and is dependent on preoperative motor power. Anakwenze et al. [22] presented a case of developed increasing right hip pain with reduction of e neurological status of the right lower extremity up to footdrop. These symptoms occurred over 5 months after open reduction of a posterior hip dislocation and femoral head fracture; computed tomography (CT) showed significant heterotopic ossification coursing along the sciatic nerve. Surgical exploration confirmed the CT findings and nerve decompression resulted in improved motor function with full recovery of gastrocsoleus complex strength and sensory function improvement, most notably in the tibial nerve division.

Kyriacou et al. [23] evaluated whether exploration and neurolysis is an effective method of treating neuropathic pain in patients with a sciatic nerve palsy after THR and found that sciatic nerve neurolysis significantly reduced pain scores and recommended this form of surgery over conservative management in patients with neuropathic pain associated with a sciatic nerve palsy post-THR.

It could be concluded that surgical exploration and neurolysis of cases with sciatic nerve entrapment is a safe and effective therapeutic modality resulting in significant improvement of both motor and sensory functions without risk of additional deficit secondary to neurolysis.

**Conflict of interest** None.

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