

Letter to Editor





Traumatic sciatic nerve injury and effectiveness of spinal cord stimulation

Volume 5 Issue 3 - 2016

Mert Akbas, Gözde Dagıstan²

'Associate Proffesor, Division of Pain Management, Akdeniz University Faculty of Medicine, Turkey 2Division of Pain Management, Akdeniz University Faculty of Medicine, Turkey

Correspondence: Mert Akbas, Faculty Department of Anesthesiology Division of Algology, Akdeniz University Medical, 07070-Antalya/Turkey, Tel +90(242)2496642, Fax +90(242)2415426, GSM: +90 505 6482826, Email akbasmert@akdeniz.edu.tr, akbasmert@gmail.com

Received: July 29, 2016 | Published: July 29, 2016

Letter to editor

We would like to highligt sciatic nerve injury related to intramusculer injection. Sciatic nerve injury has been recognized for many years. Intramusculer injection is common cause of sciatic nerve injury. Kline et al. reported that injection is the most common cause of sciatic nerve injury at the buttock level in their study. The most of the patients with sciatic nerve injection injury have an immediate, but some patients have delayed onset of symptoms. This difference is related to injection site, if it is closer to the nerve or not. Intraneural injection seems to cause an immediate onset of symptoms.² Sciatic nerve damage can range from minimal to severe. Depending on damage level sciatic nerve injury can present minor transient pain without neuorological sequelae or severe sensory disturbance and motor loss with poor recovery.3 Postulated mechanisms of injury includes ischemia, needle injury, neuritis, circumferential constriction around nerve fibre by scar tissue, direct nerve fibre damage by neurotoxic agents injected.4

We had 2 patients with sciatic nerve injury following intramuscular injection. Patients had been injected analgesic intramuscularly to the left buttock region. They were admitted to our clinic with pain, paresthesia and burning sensation along the sciatic distribution and motor weakness at the left leg and also had a drop foot with loss of dorsiflexion of left foot. Patients' electromygraphy was analysed on left lower extremity, there was nearly complete and complete axonal denervation on common peroneal and posterior tibial division of sciatic nerve respectively. VAS values were recorded 10 and 9 respectively. After the examination sacral 2-3-4 nerve block on left side was performed with fluoroscopy. Dexamethasone and lidocaine were used for block. Eker et al. performed the block to five patients with sciatic nerve injury following intramuscular injection without fluoroscopy. They observed significiant reduction in pain.5 But we didn't see any difference on visual analog scale (VAS) values. Anticonvulsant, antidepressant and analgesic agents were addedd to treatment. Despite the invasive procedure and medical treatments, pain persisted. Then it was decided to perform spinal cord stimulation (SCS) as an alternative treatment.

SCS was applied between T8-T10 levels. Prior the procedure VAS values were recorded as 10 and 9. They were recorded 3 and 1, after performing SCS trial respectively. There were many clinical studies, reviews and case reports about sciatic nerve injury due to intramuscular injection. Most of them are about the management, surgical and conservative therapies, results of sciatic injection injury. When we checked out the literature, we could't find any case report like this. Our cases may be first applied SCS for sciatic neuropathy following intramuscular injection. In this case report we present 2 cases who had neuropathic pain due to intramuscular injection which is resistant to invasive and medical theraphies. We observed that the SCS treatment was effective to relieve pain due to sciatic neuropathy. We did not observe any side effects and infection associated with SCS procedure. SCS should be considered as an alternative treatment

method that can be used safely for sciatic neuropathy which has immediate response.

| | Patient I | Patient 2 |
|----------------------|--|-----------------------------|
| Age | 54 | 60 |
| Gender | М | М |
| Duration on symptoms | 8 months | 4 months |
| VAS before SCS | 10 | 9 |
| VAS after SCS | 1 | 3 |
| EMG | Nearly complete axonal denervation | Complete axonal denervation |

Acknowledgments

None.

Conflicts of interest

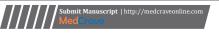
The authors declare there is no conflict of interests.

Funding

None.

References

- Kline DG, Kim D, Midha R, et al. Management and results of sciatic nerve injuries: a 24 year experience. J Neurosurg. 1998;89(1):13–23.
- Yeremeyeva E, Kline DG, Kim DH. Iatrogenic sciatic nerve injuries at buttock and thigh levels: the Lousiana State University experience review. *Neurosurgery*. 2009;65(4 suppl):A63–A66.
- Kim HJ, Park SH. Sciatic nerve injection injury. J Int Med Res. 2014;42(4):887–897.





- 4. Clark WK, Williams PE Jr, Willis W. Injection injury of the sciatic nerve. Clin Neurosurg. 1970;17(4):111-125.
- 5. Eker HE, Cok OY, Aribogan A. A treatment option for post-injection sciatic neuropathy: transsacral block with methylprednisolone. *Pain Physician*. 2010;13(5): 451–456.