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Letter to Editor

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Podcast

Meralgia paresthetica treated with temporary peripheral nerve stimulation

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Meralgia paresthetica (MP) is a painful neuropathic condition caused by impingement of the lateral femoral cutaneous nerve (LFCN).[1-3] The LFCN is a purely sensory nerve that innervates the anterolateral thigh. This nerve is derived from divisions of the L2 and L3 spinal nerves.[1-3] This condition can lead to neuropathic pain, paresthesias, and dysesthesias along the distribution of this nerve. Patients typically present with pain in the anterolateral thigh that is burning and tingling in nature and commonly exacerbated with light touch and hip extension.[1-3] This condition is typically diagnosed based on clinical history and physical exam findings but can be confirmed by nerve conduction studies (NCSs) or diagnostic injections.

Initial management of MP is conservative and includes lifestyle modification and weight loss. When these initial measures are ineffective, pharmacological options with neuropathic pain medications can be explored. If these noninvasive therapies continue to fail, local anesthetic with a steroid injection and further interventions can be considered. There has been some growing interest in the use of peripheral nerve stimulation (PNS) for neuropathic pain.[4,5] This minimally invasive therapy may provide another option for patients who continue to suffer from debilitating pain despite adequate conservative treatment. We briefly describe a patient with refractory MP who was successfully treated with a temporary peripheral nerve stimulator device that was implanted for 60 days.

The patient was a 44-year-old man who presented with severe neuropathic pain along the distribution of the right LFCN.

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His pain was exacerbated by wearing belts and most physical activity. The patient reported that his pain averaged 9/10 on numerical rating scale (NRS). He underwent imaging of the lumbar spine with no apparent pathology. He was obese with a body mass index (BMI) of 38 kg/m^2. The patient tried conservative therapy with a home exercise program and weight loss to a BMI of 32 but continued to experience pain complaints. Pharmacological options were explored and the patient was trialed separately on gabapentin and pregabalin with minimal improvement in his pain. He underwent a steroid injection of the LFCN with complete resolution of his symptoms for 3 weeks. Given persistent pain complaints, the patient was offered a 60-day treatment with PNS of the LFCN.

The procedure was performed under local anesthetic. A linear ultrasound transducer was used to identify the right LFCN. The stimulating needle was advanced under ultrasound guidance near the LFCN until the patient reported comfortable paresthesia coverage in the area of pain. The lead was then secured to the skin with skin adhesive and dressings were applied. The patient tolerated the procedure well and there were no complications.

The patient was seen for follow-up in the clinic after 30 days and reported a pain score of 2/10 on NRS. He expressed interest in weaning his pregabalin regimen due to improvement of his pain complaints and his dose was reduced from 150 mg three times a day to 150 mg twice a day. At his 60-day follow-up, he had decreased his pregabalin further to 150 mg daily with continued pain score of 2/10. He self-reported 80% improvement in his pain and functionality with the therapy. The peripheral nerve stimulator lead was removed without complications. At his follow-up appointment 30 days after lead removal (90 days after initial treatment), he continued to report a pain score of 2/10 and continued to utilize his pregabalin at the same dosage of 150 mg daily.

MP can be a difficult condition to treat. Initial management of MP should include conservative measures with weight loss and avoidance of tight-fitting clothing. When conservative management fails, more invasive options can be considered. PNS has been shown to provide improvement in pain and functionality for several forms of neuropathies and painful neuropathic conditions.[4,5] This case is of interest in that it demonstrates the utility of a temporary 60-day peripheral nerve stimulator device for the treatment of MP. This procedure required no permanent implant or surgery and was performed under local anesthetic. The patient achieved 80% improvement and was able to reduce his medication usage by 66% with continued improvement at his follow-up appointment. This case adds to the growing literature to support PNS for a variety of neuropathic conditions.

Conflict of Interests

The authors declare no conflict of interest in this study.

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