The Use of Radiofrequency Ablation in Managing Refractory Pain Associated with Multiple Sclerosis: A Case Report

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INTRODUCTION

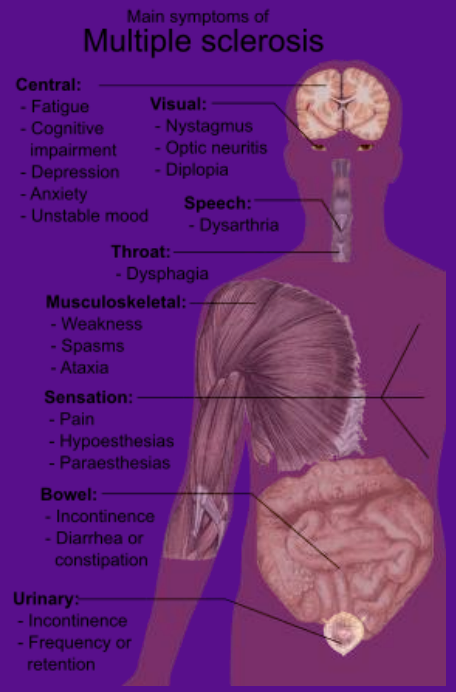
Multiple Sclerosis (MS) is a complex autoimmune disorder of the central nervous system. It is characterized by progressive deterioration of the protective myelin sheath of nerve cells. In turn, this creates a debilitating condition that often leads to relapsing and remitting neuromuscular symptoms. Studies have shown that up to 65% of patients with multiple sclerosis experience acute and subacute pain syndromes. In addition, patients may experience muscle spasms as well. Radiofrequency ablation (RFA) is a medical procedure that involves the use of targeted heat energy to interrupt the transmission of pain signals along nerves. Typically, RFA is offered as an intervention to patients with chronic spondylosis of the spine in light of arthritis and degenerative disc disease. However, RFA may offer promising relief of pain and increased functionality in patients with neuromuscular diseases like multiple sclerosis.

PURPOSE

The purpose of this study is to report the clinical utility of radiofrequency ablation in managing pain in patients with multiple sclerosis.

METHOD

Case report and clinical review.



RESULTS

In one case, a 36 year old hispanic female with relapsing-remitting multiple sclerosis presented for chronic low back pain with sharp, shooting pain down her left lower extremity. Despite her BMI being in a healthy range, her condition had affected her functionality and she was on disability being away from her prior occupation as a billing coordinator. The patient had failed conservative measures including a course of physical therapy and multiple pain medications including pregabalin, nortriptyline, zanaflex, and duloxetine. MRI of lumbar spine was unremarkable. The patient reported sustained pain relief without any changes in her pain medications following left radiofrequency ablation to the L3, L4, L5 medial branch nerves of the facet joints.

CONCLUSIONS

This case demonstrates the clinical utility of radiofrequency ablation in treating pain and muscle spasms in patients with demyelinating neurological diseases such as multiple sclerosis. Of note, this patient did not have significant spondylosis, as typically expected in patients with chronic low back pain. Perhaps radiofrequency ablation is an interventional technique that can be offered to patients experiencing similar pain in light of a central nervous system pathology.

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