Restoration of Efficacy of Spinal Cord timulation After Conversion From Percutaneous to Paddle Leads

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Learning Objectives

To show recapture of clinical efficacy of SCS after conversion to paddle lead system from percutaneous lead system.

Introduction

Spinal cord stimulation (SCS) is widely used for conditions such as failed back surgery syndrome (FBSS) and complex regional pain syndrome (CRPS I and II). While percutaneous or paddle lead systems are both viable options, percutaneous lead systems have a tendency to lose efficacy due to a higher migration rate, resulting in loss of clinical efficacy.

Methods

A retrospective chart review was conducted to identify patients who had lost efficacy from their percutaneous SCS systems and were converted to a paddle lead system, regardless of etiology.

Patients were contacted and were assessed on their pain reduction and their overall satisfaction with SCS lead conversion.

Results

From 2013 to 2016, 7 patients were identified with a mean age of 54.8 years (range: 32-80) who had received benefit from percutaneous lead systems and presented for evaluation with loss of efficacy.

A total of 5 male and 2 female patients underwent conversion from percutaneous to paddle lead systems with a restoration and/or improvement in their symptom coverage.

Diagnoses included:

- FBSS (71.43%)
- CRPS (28.57%)

Mean follow-up duration:

- 21 months (range: 2-36 months)

All patients who were contacted reported complete satisfaction with their SCS lead conversion and reported restoration of their previous pain relief experienced with their initial surgery.

Patients reported a 50% in pain reduction; however, many patients were not able to provide an exact percentage.

Conclusions

Failure of percutaneous SCS stimulation should not deter using SCS as a treatment modality for patients with a recurrence of their symptoms. While patients should be evaluated on a case-by-case basis, conversion to a paddle-lead system may allow for recapture of their clinical benefit and improve quality of life.