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ABSTRACT:

Conscious sedation with dexmedetomidine during spinal cord stimulator lead placement.

Introduction

Spinal cord stimulation (SCS) for neuropathic pain is mostly performed under general anesthesia. Regarding the need for perioperative evaluation of the stimulation pattern, we investigated the efficacy of dexmedetomidine as sedative. Being able to verify the stimulation pattern during electrode placement can minimize the risk of lead misplacement and revision.

Material and Methods

25 patients who were treated with epidural SCS (Medtronic 565-paddle lead) during a perioperative infusion of dexmedetomidine were included. Guided by patient feedback, the position of the electrode was adjusted to optimize stimulation pattern.

Results

24 out of 25 patients completed the procedure. In 46% (10 out of 24) the position of the electrodes needed to be adjusted because of inadequate stimulation pattern. No significant hemodynamic changes or cognitive effects were recorded. Generally, the procedure was well tolerated (Figure 1).

Conclusion

Dexmedetomidine has no negative effects on the respiratory function and can lead to a cooperative form of sedation. Generally, there was an acceptable level of comfort despite the invasive procedure. One patient needed more profound sedation. With cooperative sedation, the amount of revisions or suboptimal working neurostimulators can be decreased as compared to general anesthesia