

Treatment of Cancer-Related Chest Wall Pain Using Spinal Cord Stimulation

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Reference: Alexander E. Yakovlev, Beth E. Resch, and Sergey A. Karasev
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Abstract

Objective: It has been estimated that 15% to 40% of chronic cancer pain has a neuropathic component, and this type of pain often responds poorly to opioids. In an attempt to provide increased pain relief for patients with intractable cancer pain, unconventional agents and interventional management approaches have received considerable attention. Spinal cord stimulation (SCS) has been used with increased frequency for the treatment of intractable cancer pain.

Methods: The patients with a history of cancer-related chest wall pain underwent an uneventful SCS trial with percutaneous placement of 2 temporary 8-electrode leads (Medtronic Inc, Minneapolis, Minnesota) placed at the level of T3-T4-T5.

Results: After experiencing excellent pain relief over the next 2 days, the patients were implanted with permanent leads and rechargeable generator 2 to 2 1/2 weeks later and reported sustained pain relief at 12-month follow-up visit.

Conclusion: SCS provides an effective, alternative treatment option for select patients with cancer-related chest wall pain who have failed conservative treatment. SCS may provide pain relief with advantages over conservative treatments and more invasive techniques.

Strengths of the study:

- 1)No conflict of interests
- 2)Somewhat relevant to palliative care patients
- 3)Two day period of percutaneous lead placement prior to the invasive procedure to test efficacy
- 4)Follow up for one full year
- 5)Well established method of intractable pain control, even pain not related to cancer
- 6)Increase the chance to come off opioids

Weaknesses of the study:

- 1)Cohort study, no control population
- 2)Small sample size
- 3)Did not use a set scale for pain quantification
- 4)An invasive procedure, can not be done by family physicians, and could not be administered by nurses and has its own side effects panel (infection, injury...etc)
- 5)One year follow up, long term efficacy and side effects are unclear

Relevance to palliative care: Spinal cord stimulation is an established method for pain management if conservative therapy fails. However, its utilization in the palliative care setting may prove challenging because patient's pain is not always localized. Further studies with higher number of patients who suffer from localized pain are needed. use of a recognized pain scaling system is required. However, the use of this method in palliative patient with generalized pain phenomenon needs further investigation.

