

#967 Neuromodulation for Cancer-Related Pain - A Case Series

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Introduction

Cancer and treatment for cancer can leave many patients with problematic neuropathic pain, which can be resistant to treatment. In cancer survivors, long-term neuromodulation in form of spinal cord stimulation (SCS) or peripheral nerve stimulation (PNS) can be considered.

The author describes 20 cases of neuromodulation used to manage cancer related neuropathic pain over 2 year period.

Materials / Methods

All patients were referred by oncology services and seen in dedicated cancer pain clinic. All patients completed local neuromodulation pathway, including consultant and CNS assessment, psychology if required, and MDT approval. All SCS implants using Boston scientific device, for superior MRI conditionality. All PNS implants using Stimrouter, Bioness device. All cases implanted since February 2020.

Results

20 cases of SCS/PNS for treatment of chronic neuropathic pain in cancer survivors described:

Pain resulting from cancer disease:

Muscle tumours:

- ◆ Fibromatosis of deltoid, PNS to left brachial plexus;
- ◆ Fibromatosis deep loin, SCS T8/9;
- ◆ Sarcoma (multiply recurrent) requiring hindquarter amputation with L5 pain, SCS T10/11;

Nerve tumours:

- ◆ Cervical ependymoma C5-T1, PNS to left brachial plexus;
- ◆ Neurofibroma C5 SCS C2/3;
- ◆ Neurofibromatosis type II, L5 pain, SCS T10/11

Bone tumours:

- ◆ Myeloma, L5 root compression, SCS T8-10;
- ◆ Myeloma L1-3 fusion, SCS T9/10;
- ◆ Metastatic prostate cancer with bone mets L3, SCS T8/9.

Pain following treatment of cancer:

Surgery:

- ◆ SCS for Post-thoracotomy pain from oesophageal cancer age 35;
- ◆ Ovarian cancer hysterectomy oophorectomy with pelvic pain, SCS T8 and L1;
- ◆ Breast Ca excision, SCS T2/3.

Radiotherapy:

- ◆ Sacral radiotherapy to SCC anal verge with buttock/sciatic pain, SCS T8-10;
- ◆ Vulval Ca, left hemipelvectomy and vulval radiotherapy, SCS T11/12;
- ◆ Radiation neuritis following SCC mandible, brachial plexus PNS;
- ◆ SCC vagina, high dose pelvic radiotherapy, SCS T12/L1;
- ◆ Anal Ca, chemoradiotherapy with pelvic pain, SCS T11/12.

Chemotherapy:

- ◆ CIPN both legs following chemo for acute myeloid leukaemia, SCS T10/11;
- ◆ CIPN following chemo for mediastinal germ cell tumour, bilateral hands and feet, SCS cervical and thoracic.

Pain from other origin, complicated by cancer management:

- ◆ Neuropathic AKA stump pain following femoral pseudoaneurysm, complicated by radical radiotherapy for SCC glottis, SCS T9/10

Discussion

- ◆ Prompt referral from oncology services facilitated assessment of patient suitability. Established neuromodulation pathway remains essential, including MDT assessment, discussion and approval.
- ◆ Weekly rapid-access out-patient clinic and weekly cancer pain day-case theatre lists facilitated timely conduct of SCS trial and full implants.

Conclusions

This case series demonstrates that cancer survivors can suffer chronic neuropathic pain, either from cancer disease and treatment for cancer, which can be appropriately treated with neuromodulation.

