

Management of Refractory Chronic Abdominal Pain in a Stave IV Ovarian Cancer Patient Using Dorsal Root Ganglion Spinal Stimulation

Handeul (Hanna) Yoon OMS-IV¹, Dr. Tian Xia DO²

¹Midwestern University Chicago College of Osteopathic Medicine, ²Integrated Pain Management



BACKGROUND

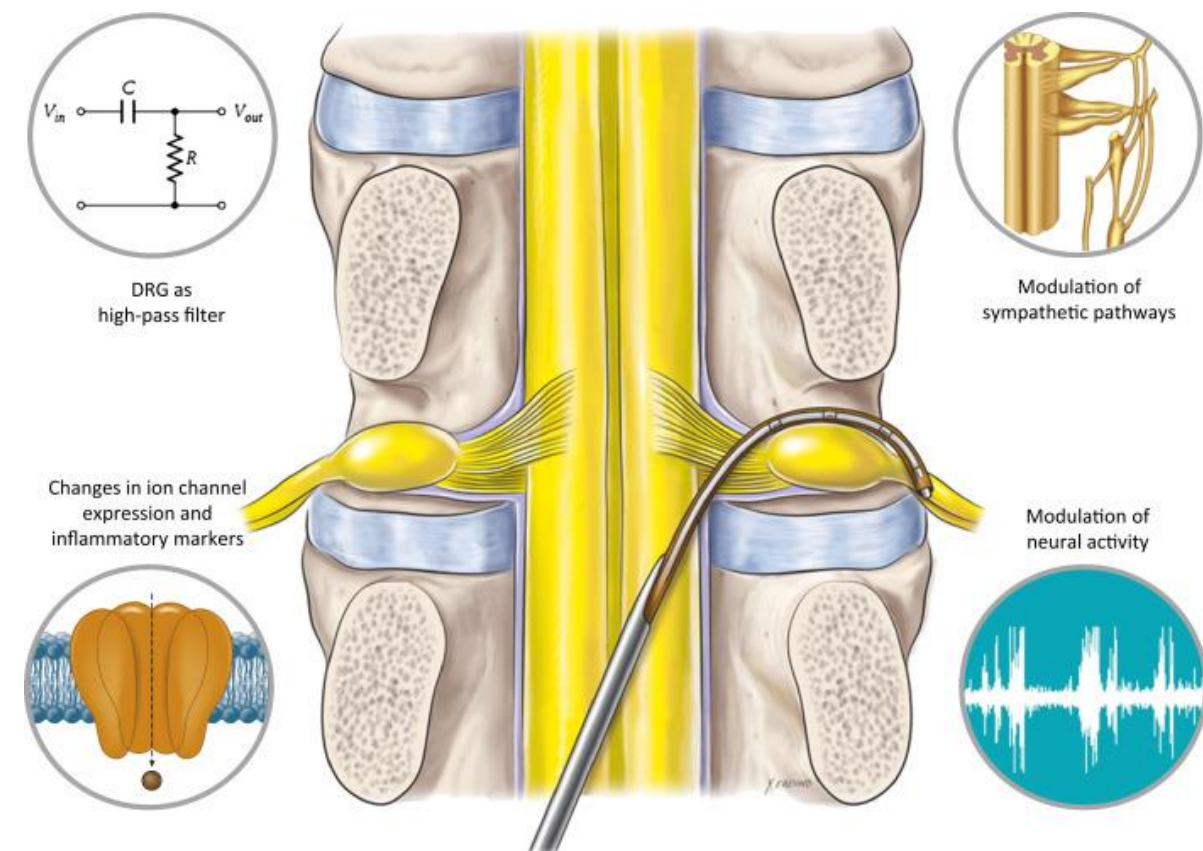
- Effective pain management significantly impacts health-related quality of life (HRQOL)
- Dorsal root ganglion (DRG) stimulators offer minimally invasive alternative to back surgery and has been shown highly effective for treating neuropathic pain resistant to conventional treatments
- Only 15% of ovarian cancers are diagnosed in early stages
- Patients report pain in 60% of cases
 - Require as much as five concurrent coping mechanisms
- Approximately 40% of all cancer patients have poorly controlled pain
- Relying on opioids for pain control is unpredictable and provides inconsistent coverage due to:
 - Tolerance, side effects, disease progression, poor response, metabolism
- Nerve stimulators disrupt pain sensation by interrupting smaller C and A delta fibers with larger A beta fibers

CASE DESCRIPTION

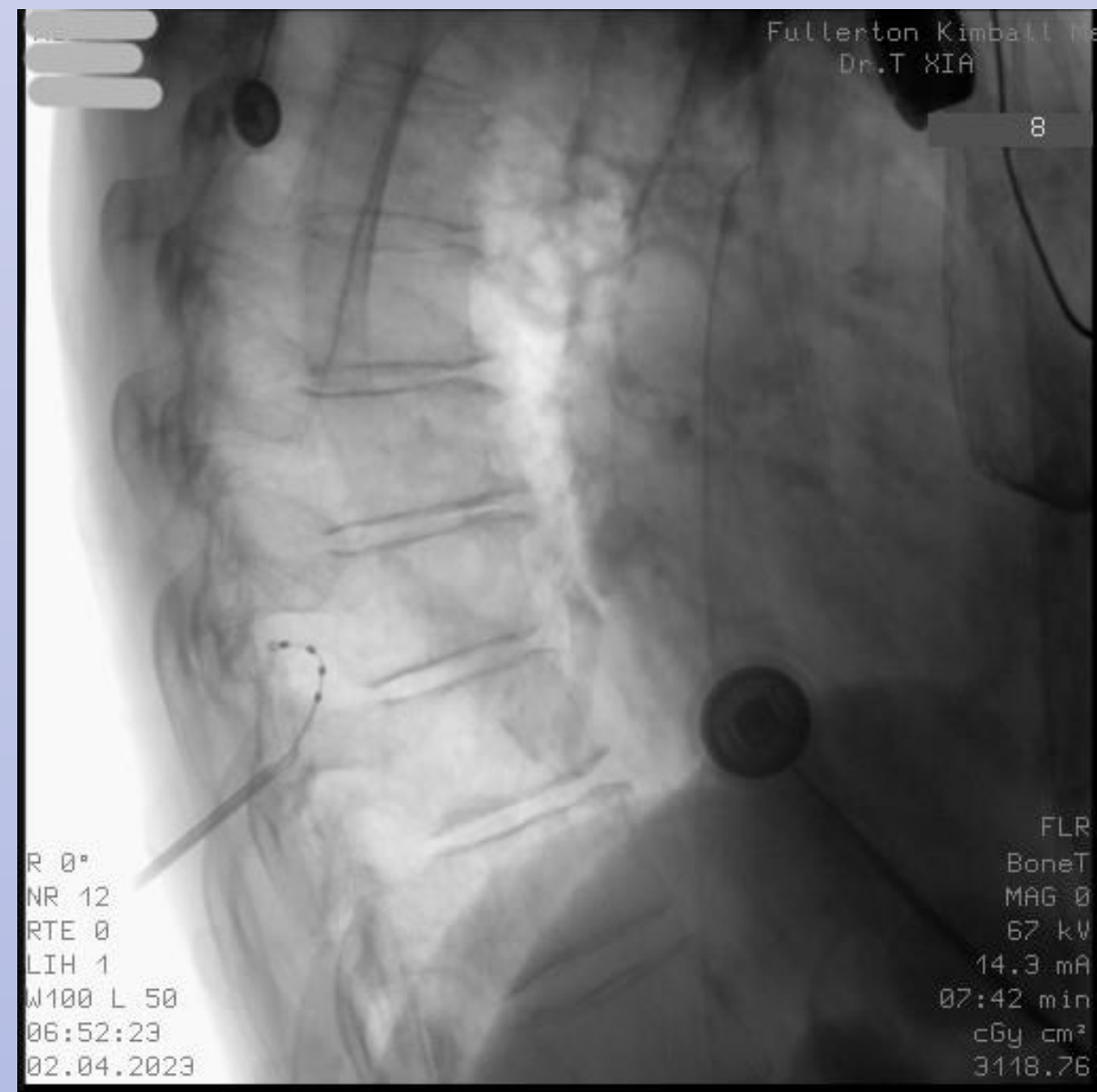
- 76-year-old woman with history of stage IVb high-grade serous ovarian carcinoma of Mullerian origin, fibromyalgia, and chemotherapy-induced neuropathy
- Received chemotherapy in 2021 following diagnosis
 - Began having sharp, constant abdominal pain and low back pain ranging between 5/10 to 10/10
- Attempted various nerve blocks 2-3 weeks apart:
 - R and L celiac plexus
 - L superior hypogastric
- Underwent six-week physical therapy programming
- No improvement of pain with nerve blocks or PT
- Continued consistent opioid use
- Decision to proceed with DRG stimulator placement

METHODS

- 14-guage Tuohy needle
- Quad leads inserted into neuroforamen under fluoroscopy
- Positioning confirmed with XR and patient feedback
- Device assessed and reprogrammed in recovery room
- Battery pocket placed laterally and electrodes tunneled underneath



Dorsal root ganglion (DRG) stimulators offer minimally invasive alternative to back surgery and has been shown highly effective for treating neuropathic pain resistant to conventional treatments



Step 1: Diagnostic Trial

50-70% improvement in pain after ONE week

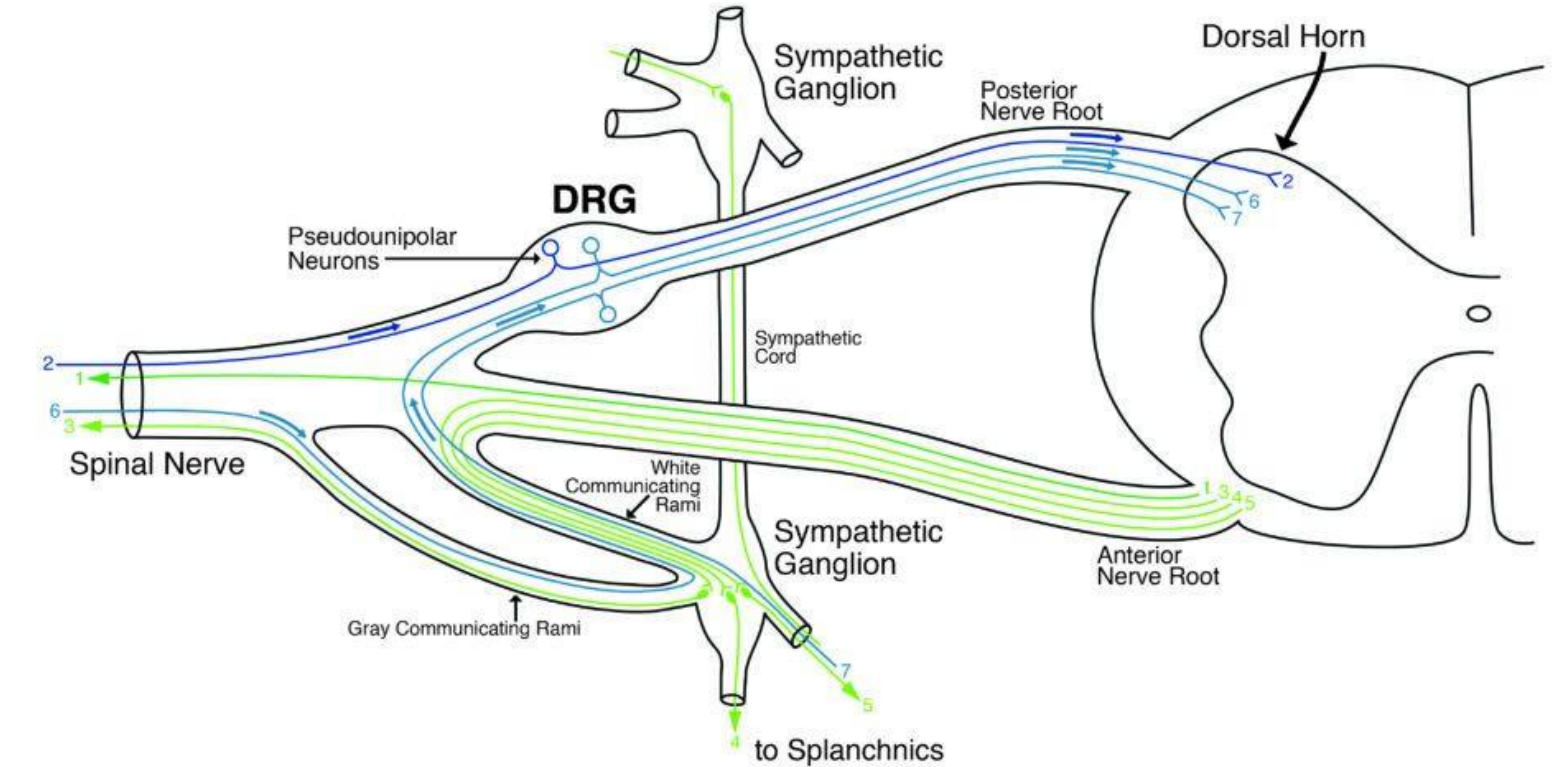


Step 2: Permanent Placement

75% improvement after ONE week with continued management after six months

WHY DORSAL ROOT GANGLION

- Spinal stimulation provides less invasive approach
- DRG stimulators are more localized versus traditional spinal cord stimulators
- Thin layer of CSF surrounding DRG allows lower amplitudes of electrical stimulation to provide sufficient pain relief – as low as 4 Hz and at intermittent intervals



CONCLUSION

- Increase in HRQOL due to:
 - Relief of chronic pain
 - Rapid recovery (minimally invasive)
 - Reduced opioid demand
- High value in populations with:
 - Chronic pain refractory to PT and pharmacotherapy
 - History of opioid use disorder or overuse
 - Pain from complex etiology e.g. abdominal malignancy
- Improved tolerance for ADLs and other daily activities
- Sense of control and agency over pain

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