



# Dorsal Root Ganglion Pulsed Radiofrequency Treatment for Intractable Lower Limb Cancer Pain

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## Background

Chronic intractable limb pain is a commonly encountered condition with multiple etiologies and treatment options. There are several conventional methods to treat this, however, not all patients will be good candidates for these interventions and may have limited options due to side effects, patient goals of care, or contraindications. In this case, pulsed radiofrequency (PRF) of the dorsal root ganglion (DRG) may provide a viable option.

### Learning Objectives

- Highlight a treatment option for intractable lower limb cancer pain.
- Compare the benefits/limitations of PRF treatment compared to other treatment modalities

## Case / Clinical Course

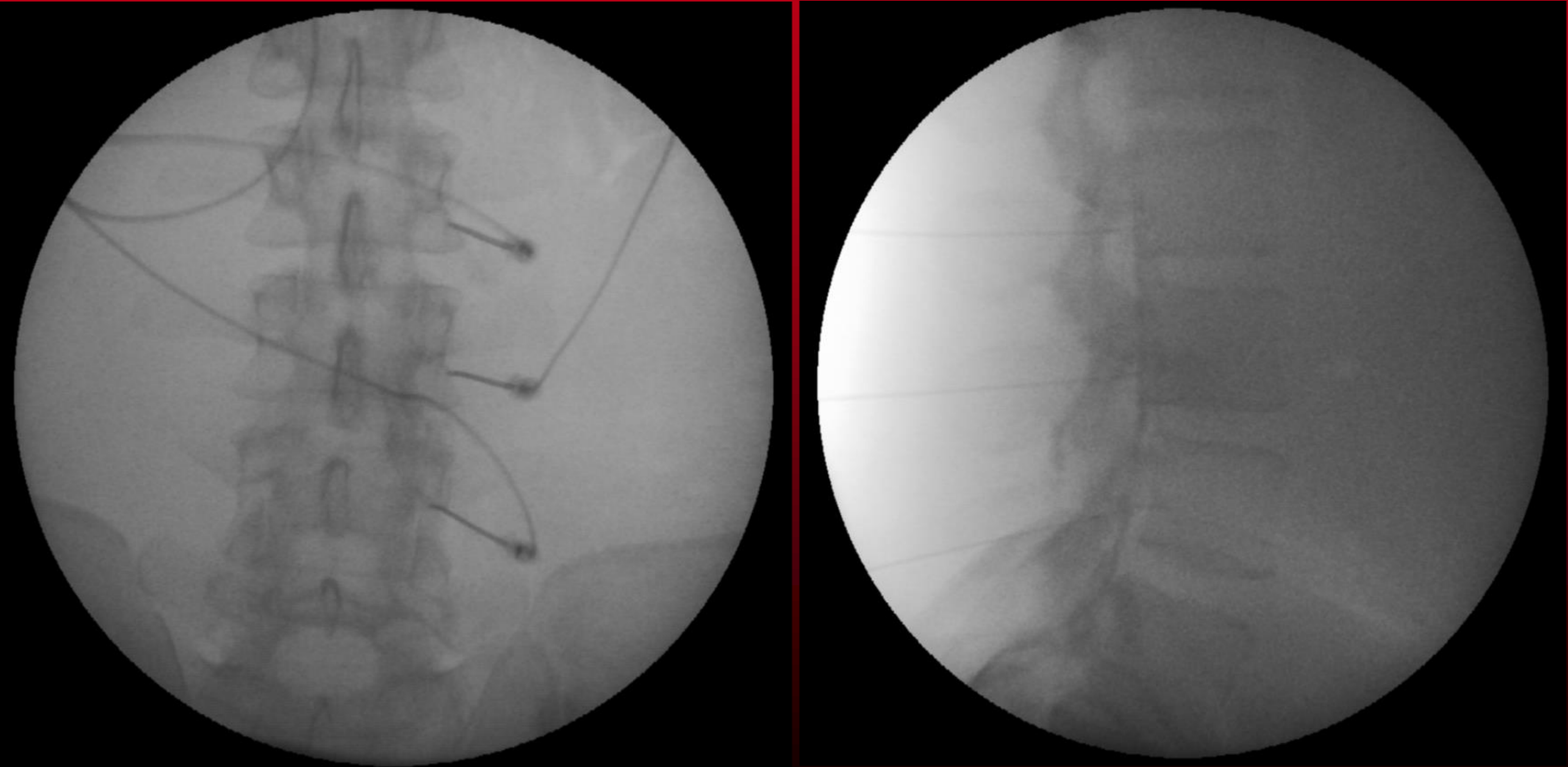
**Presentation:** 36 year old male with intractable nausea, vomiting, and increased swelling and inflammation of the RLE compared to baseline and unable to tolerate his regular home PO medications.

## Case / Clinical Course

**PMH:** stage 4 gastric adenocarcinoma and peritoneal carcinomatosis with metastases to abdomen, skin, and right thigh with chronic pain in the lower abdomen and right lower extremity (RLE).

**Treatment Course:** Pain continued despite extensive dilaudid PCA and fentanyl patch. A femoral nerve block was given which provided only 50% pain relief for 1-2 weeks. After extensive discussion, the patient refused intrathecal pain pump and did not desire total ablation of the femoral nerve as he was still ambulatory. PCA requirements again increased and after patient discussion and consent PRF of DRG L2-L4 at 42 degrees for 150 seconds was performed which achieved 80% pain relief with no acute complications. PCA requirements dramatically decreased within 24 hours of the procedure and patient was extremely satisfied with the intervention.

## Pulsed RFA of DRG



## Discussion

- Few studies of PRF on DRG for intractable lower extremity pain have been performed, limiting data quality(1).
- Treatment limitations such as NPO status, desire for preserved limb function or decreased opioid requirements, surgical candidacy, life expectancy, functional status all play a role in determining what treatment is feasible or appropriate for a given patient.
- Limited evidence has shown a reduction in pain, increased duration of pain relief, and reduction in use of analgesics, particularly with radicular pain in the cervical region with fewer studies on the lumbosacral region(2).

## Key Points / Conclusions

- PRF of DRG should be considered in patients who have not responded to or are not able to receive other conventional treatments.
- Further research is needed to show efficacy and reliability of this treatment modality in patients with chronic intractable limb pain.

## References

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2. O’Gara A, Leahy A, McCrory C, Das B. Dorsal root ganglion pulsed radiofrequency treatment for chronic cervical radicular pain: a retrospective review of outcomes in fifty-nine cases. *Irish Journal of Medical Science (1971 -)*. 2020;189(1):299-303. doi:10.1007/s11845-019-02087-4