Cluneal neuralgia after lumbar fusion: an overlooked pain generator

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01 — BACKGROUND

Persistent pain after lumbar fusion may arise from pain generators outside the fused segments. Cluneal neuralgia is an underrecognized cause of low back and buttock pain and may be particularly relevant in the postoperative spine. The superior cluneal nerves traverse the thoracolumbar fascia, creating a potential site of entrapment or irritation.

02 — CASE

A 72-year-old woman with three prior lumbar surgeries, including L4-S1 posterior instrumented fusion and multilevel laminectomy, presented with chronic, nonradicular right-sided low back and buttock pain. Right sacroiliac joint injections gave substantial but transient improvement. With recurrent focal buttock pain, an ultrasound-guided right cluneal nerve block produced near-complete temporary relief. Based on this response, a temporary percutaneous peripheral nerve stimulation (PNS) lead targeting the involved cluneal nerve was placed for a 60-day treatment period.

03 — DISCUSSION

Cluneal neuralgia should be considered in patients with persistent focal low back or buttock pain after lumbar fusion, particularly when conventional interventions provide incomplete relief. Because cluneal nerves traverse the thoracolumbar fascia, postoperative soft-tissue changes may contribute to irritation or entrapment. In this patient, a positive diagnostic block followed by sustained improvement with temporary PNS supported a cluneal-mediated pain generator and demonstrated a targeted, minimally invasive treatment option after spinal surgery.

REFERENCES

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2. Iwamoto N, Isu T, Kim K, et al. Treatment of low back pain elicited by superior cluneal nerve entrapment neuropathy after lumbar fusion surgery. Spine Surg Relat Res. 2017;1(3):152-157.
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CASE REPORT

Consider **cluneal neuralgia** when focal low back or buttock pain persists after lumbar fusion.

After a positive **diagnostic block**, 60 days of **temporary peripheral nerve stimulation** produced sustained improvement.

Reassess residual pain rather than attributing every post-fusion symptom to a single source.

SCAN FOR THE FULL CASE

04 — CLINICAL COURSE

BASELINE — Right low back and buttock pain

Right sacroiliac joint injections

~90% relief after the first injection and ~80% after a subsequent injection; relief was temporary.

DAY 0 — Recurrent focal right buttock pain

Diagnostic cluneal nerve block

Near-complete relief for the remainder of the procedure day.

DAYS 1–60 — Persistent focal right buttock pain

Temporary cluneal nerve PNS

Complete to excellent targeted pain relief throughout the stimulation period. A transient pressure sensation at higher intensity resolved after lowering the amplitude.

DAY 60 — End of temporary PNS treatment

Lead removal

Lead removed intact without complication; excellent relief persisted. No infectious, neurologic, or lead-related complications.

~DAY 90 — Targeted buttock pain remained substantially improved; intermittent symptoms persisted

Clinical reassessment

Significant benefit remained ~1 month after lead removal; a distinct axial lumbar pain syndrome later became more prominent.

Written informed consent was obtained from the patient for submission and presentation of this case.