The Treatment of Unilateral Vertebrogenic Pain in a Patient with Lumbar Dextroscoliosis with Unilateral Modic Type I Change via Basivertebral Nerve Ablation.

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Introduction

Basivertebral nerve ablation (BVNA) is a treatment option for patients with chronic axial low back pain. However, to our knowledge, there is limited literature supporting the use of BVNA in patients with scoliosis and/or unilateral Modic type I changes.

Case Description

We present the case of a 68-yearold, 190 lb retired female who sought pain management for an 8-year history of progressively worsening left-sided low back pain, accompanied by mild radicular pain radiating to the left upper buttock and groin. The pain was rated between 3/10 and 10/10, with exacerbation during forward lumbar flexion. She had not previously received any interventions for her pain. Her initial physical exam revealed pain with lumbar flexion, which was relieved by extension. The rest of the physical exam was unremarkable. Non-contrast lumbar magnetic resonance imaging (MRI), completed a month prior and compared to studies from 2015, showed a new L3-4 dextroscoliosis with an apex at L3, and Modic type I changes to the left of midline at this level. Additionally, mild central canal stenosis was observed at L3-4, with mild right and moderate left foraminal stenosis. The patient underwent a series of left L3-4 interlaminar epidural steroid injections (ILESI), initially with 80 mg of methylprednisolone acetate, followed by another injection 3 weeks later using 80 mg of triamcinolone.

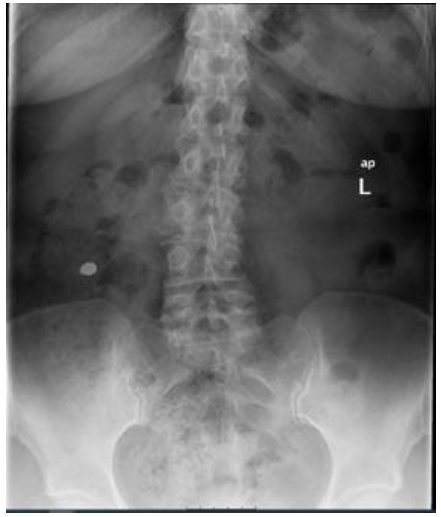

Figure 1. AP XR noting scoliosis with loss of disc height asymmetric to the left at L3-L4

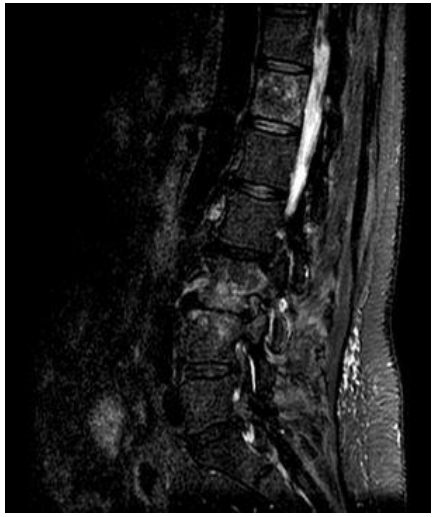

Figure 2. Left side sagittal STIR showing edema at L3-L4

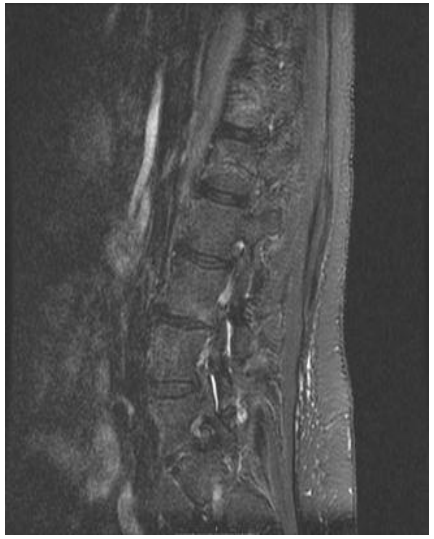

Figure 3. Right side sagittal STIR showing no findings at L3-L4

Figure 4. Post L3 and L4 BVN RFA with lesions at L3 and L4

Discussion

She reported a 50% reduction in pain after these injections. It was believed the pain was vertebrogenic in nature, and a plan was made for L3 and L4 basivertebral nerve ablation. At a follow-up appointment 2 weeks after the ablation, she reported complete pain relief. At her 7-month follow-up, the patient continued to experience total resolution of her pain.

Conclusion

In patients with chronic axial low back pain caused by scoliosis, BVNA may provide long-lasting pain relief.

References

1. Tieppo Francio V, Sayed D. Basivertebral Nerve Ablation. [Updated 2023 May 22]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK572127/