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Introduction

Bertolotti Syndrome, also known as lumbosacral transitional vertebra, is a condition where the transverse process of the 5th lumbar vertebra articulates with the sacrum. This may result in abnormal spinal mobility and can present as chronic lower back, hip, and sacroiliac pain, and may even be associated with radiculopathy. In patients with Bertolotti Syndrome, conventional pain management procedures may not yield significant improvement. Consequently, it may be necessary to consider non-conventional therapeutic approaches, as outlined below.¹

Results

A 48-year-old female with lumbar radiculopathy presented to the clinic for an evaluation of lumbar back pain. The physical exam was remarkable for lumbar facet loading bilaterally, positive right FABER test, and tenderness in the right L5-S1 paraspinous/facet. We attempted more conventional procedures with a right transforaminal L4-5 epidural spinal injection and bilateral L3-5 medial branch block. The patient reported complete resolution of radicular symptoms with the right transforaminal injection; however, axial pain persisted. No improvement with bilateral L3-5 MBB. X-ray of the right hip revealed right lumbosacral transitional vertebrae consistent with Bertolotti Syndrome. The patient underwent a right L5 transverse process sacral ala pseudo-joint steroid injection, after which she reported 60% relief of her axial back pain for 3–4 weeks. This injection was repeated by a different provider without relief. A right cluneal nerve block produced 80 % relief in her axial back pain for 2 days.



Materials and Methods

The patient's skin was prepped and draped in sterile fashion with chlorhexidine. AP fluoroscopy was used to identify the articulation of the L5 large right transverse process with the sacral ala. A 15-degree contralateral oblique view with cranial tilt offered the best view of the pseudo-joint articulation. The skin over the target area was anesthetized with 1% lidocaine. Next, a 22-gauge, 3.5-inch spinal needle was advanced at this location until bony contact was made. The patient confirmed concordant pain when the needle made contact with the articulation point. After negative aspiration, the needle was injected with omnipaque contrast, demonstrating an appropriate spread of contrast in the L5 transverse process and sacral ala pseudo-joint space with no evidence of intravascular uptake. After negative repeat aspiration, the needle was injected with 3 mL of a solution containing 2 mL of 0.25% bupivacaine and 1 mL of 40 mg/mL triamcinolone.

Discussion

Bertolotti Syndrome is a congenital disorder that can lead to chronic lower back, hip, and sacroiliac pain. In these patients, non-conventional methods of treatment may be considered for appropriately managing patients' pain, as there is no clear consensus regarding the management of this syndrome.² Such case reports are important for illustrating ways to manage congenital anatomic abnormalities. These reports not only provide insight into potential interventions but also emphasize the need for individualized treatment plans, given the anatomical variations among patients. Furthermore, ongoing research is essential to refine diagnostic criteria and develop standardized therapeutic guidelines for more effective management of Bertolotti Syndrome.

References

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