

Mimicking inflammatory sacroiliitis: Bertolotti syndrome

Enflamatuvar sakroiliiti taklit etme: Bertolotti sendromu

● Ceyhan Bıçlıoğlu¹, ● İlhan Celil Özbek²

¹Manisa Celal Bayar University Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Manisa, Türkiye

²University of Health Sciences Türkiye, Kocaeli Derince Training and Research Hospital, Department of Physical Medicine and Rehabilitation, Kocaeli, Türkiye

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Dear Editor,

Bertolotti syndrome is a variation in the lumbosacral transition articulating with the sacrum or ilium, characterized by the presence of a transverse mega-apophysis, which leads to a change in the biomechanics of the axial skeleton.^[1] Although the prevalence in the general population is uncertain due to underdiagnosis, it is estimated to range from 4% to 30%. Among patients with complaints of low back pain, 4-8% may be diagnosed with Bertolotti syndrome. Most patients are asymptomatic, but the likelihood of developing clinical symptoms is higher when it is asymmetric. Typically, it presents with low back pain after the second decade of life.^[2,3]

The purpose of this case presentation is to highlight that Bertolotti syndrome can mimic inflammatory sacroiliitis, emphasizing its rarity and clinical significance in the young population.

Case: A 37-year-old male patient presented to us with complaints of pain radiating to the lower back and right gluteal region for the past three months. The patient reported morning stiffness lasting more than 30 minutes and noted that his symptoms were provoked by physical activity. He reported that his complaints were reduced with the use of non-steroidal anti-inflammatory drugs. However, there

was no description of pain waking him from sleep at night. Despite elevated sedimentation levels, rheumatological examination revealed no significant findings, and the patient had no comorbidities. He also had a family history of colon cancer.

On physical examination, inguinal tenderness was detected. The range of motion of the spine and bilateral hip joints was normal. The patient experienced pain in the sacroiliac joint region on the right side during the Gaenslen and Patrick-FABER tests. The modified Schober test yielded normal results. The straight leg raise test was negative. No neurological deficits or pathological reflexes were observed.

Pelvic radiograph revealed a transverse mega-apophysis of the L5 vertebra, articulating with the sacral ala (Figure 1). Magnetic resonance imaging examination revealed a hyperintense change in the T2A sequence and a hypointense large intensity change in the T1A sequence in the right wing of the sacrum at the right sacroiliac level (Figure 2).

The history, examination findings, and imaging results were evaluated, leading to the conclusion that the cause of the underlying inflammatory changes might be pseudoarthrosis between the right transverse process of L5 and the right sacral ala.

Correspondence / İletişim:

İlhan Celil Özbek MD, University of Health Sciences Türkiye, Kocaeli Derince Training and Research Hospital, Department of Physical Medicine and Rehabilitation, Kocaeli, Türkiye

E-mail: ilhanozbek7@gmail.com ORCID ID: orcid.org/0000-0003-0508-8868

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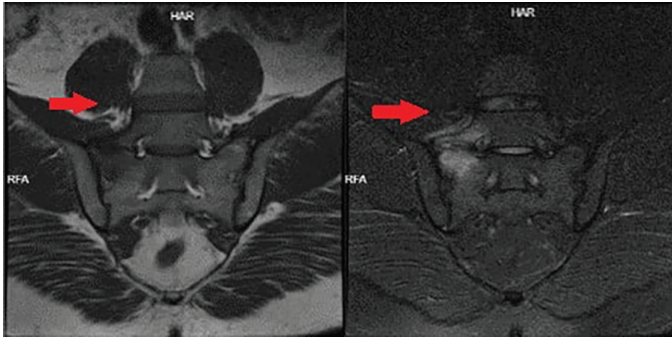


Figure 1. MRI examination revealed a hyperintense change in the T2A sequence and a hypointense large intensity change in the T1A sequence in the right wing of the sacrum at the right sacroiliac level
MRI: Magnetic resonance imaging

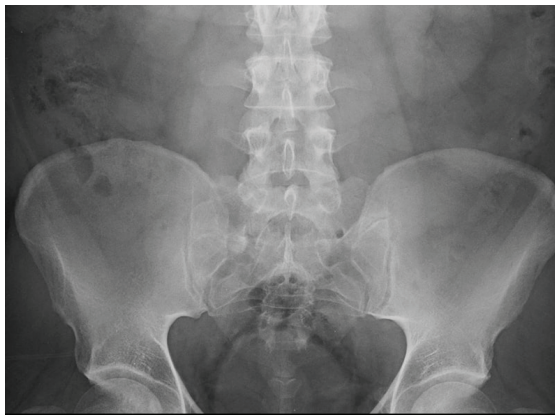


Figure 2. Pelvic radiograph, transverse mega-apophysis view of the L5 vertebra articulating with the bilateral sacral ala

A conservative treatment approach was chosen for the patient, including a physical therapy program and the prescription of analgesics. The treatment approaches for Bertolotti syndrome vary depending on the severity of the symptoms. Conservative management typically includes physical therapy and the use of analgesics. However, in resistant cases, interventional procedures such as steroid injections or surgical resection of the pseudoarthrosis may be necessary. With appropriate treatment, the long-term prognosis is generally positive, although some patients may continue to experience chronic pain.^[4]

In diagnosing Bertolotti syndrome, it is important to differentiate it from other causes of lower back pain, such as degenerative disc disease, facet joint arthritis, and spondyloarthritis. While each of these conditions has its unique clinical and radiological features, they can present with similar clinical pictures. Additionally, it is crucial to keep in mind the possible coexistence of Bertolotti syndrome and spondyloarthritis,

This case is one of the rare examples that clearly demonstrate that Bertolotti syndrome can mimic inflammatory sacroiliitis and emphasizes the importance of thorough evaluation in the differential diagnosis of low back pain. Careful correlation of clinical, laboratory, and imaging findings provides valuable insights into the diagnostic challenges and management of Bertolotti syndrome.

Note: The patient was informed about the publication of the case report and written consent was obtained.

Footnotes

Conflict of Interest: No conflict of interest was declared by the authors.

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References

1. Jancuska JM, Spivak JM, Bendo JA. A review of symptomatic lumbosacral transitional vertebrae: Bertolotti's syndrome. *Int J Spine Surg.* 2015;9:42.
2. Alonzo F, Cobar A, Cahueque M, Prieto JA. Bertolotti's syndrome: An underdiagnosed cause for lower back pain. *J Surg Case Rep.* 2018;2018:rjy276.
3. Crane J, Cragon R, O'Neill J, et al. A Comprehensive update of the treatment and management of Bertolotti's syndrome: A best practices review. *Orthop Rev (Pavia).* 2021;13:24980.
4. McGrath K, Schmidt E, Rabah N, Abubakr M, Steinmetz M. Clinical assessment and management of Bertolotti syndrome: A review of the literature. *Spine J.* 2021;21:1286-96.