

# Intervertebral Disc Separation Following Trauma in a Patient with Ankylosing Spondylitis

## Ankilozan Spondilitli Hastada Travma Sonrası İntervertebral Diskte Ayrılma

Ahmet Boyacı<sup>1</sup>, Nurefsan Boyacı<sup>2</sup>, Ahmet Tutoğlu<sup>1</sup>, Bahattin Çelik<sup>3</sup>

<sup>1</sup> Harran University Faculty of Medicine, Department of Physical Medicine and Rehabilitation, Şanlıurfa, Turkey

<sup>2</sup> Harran University Faculty of Medicine, Department of Radiology, Şanlıurfa, Turkey

<sup>3</sup> Harran University Faculty of Medicine, Department of Neurosurgery, Şanlıurfa, Turkey

### Dear Editor,

Ankylosing spondylitis (AS) is a chronic inflammatory rheumatic disease that mainly affects the peripheral and axial joints of the body. Sacroiliitis is an early finding. In addition, the paravertebral ligamentous structures of the discovertebral, apophyseal, costovertebral, and costotransversal joints are involved, causing widespread enthesopathy. Enthesopathy that forms at the edge of the vertebra is named syndesmophytosis and is the most evident finding of ankylosis. It most often occurs in the sacroiliac joint and the spine. Paraspinal ossification and the resulting bamboo cane appearance are typical (1,2).

Neurological complications are considered to be rare in patients with AS, and the occurrence of these complications has not been systematically examined (1). Cervical and lumbosacral radiculopathies, myelopathy, and cauda equina syndrome have rarely been reported as extra-articular appearances of AS (3,4).

The ankylosed and osteoporotic spine in AS patients is prone to fracturing due to the loss of spinal mobility. The fractures may occur after direct trauma or chronic mechanical stress. Acute fractures in AS are most commonly observed near the thoracolumbar junction. Fracturing of the ankylosed spine in AS results in a fracture of both the anterior and posterior part of the vertebral column and may pass through the vertebrae (transvertebral) or more commonly through the calcified disc region (transdiscal) (5). We describe a case of atypical separation on a disc following trauma in a patient with AS.

A 68-year old female patient presented to the Neurosurgery Polyclinic with complaints of loss of strength in both legs following a fall. Evaluation was made by direct radiograph, thoracolumbar computerized tomography (CT), and magnetic resonance imaging (MRI). A T10 vertebral compression fracture on the thoracolumbar CT was determined (Figure 1). Evident separation of the intervertebral T11-12 disc was determined on the MRI and 3D CT (Figure 2, 3) and posterior segmental fixation (T9-L1) was applied to the patient. Following surgery, when the patient presented at the polyclinic, a history of AS was determined. In the physical examination, the patient was evaluated as T11 ASIA B, and a rehabilitation program was applied.

Corresponding Author  
Yazışma Adresi

Ahmet Boyacı

Harran Üniversitesi Tıp Fakültesi,  
Fiziksel Tıp ve Rehabilitasyon AD,  
Şanlıurfa, Turkey

E-mail: drboyaci@hotmail.com

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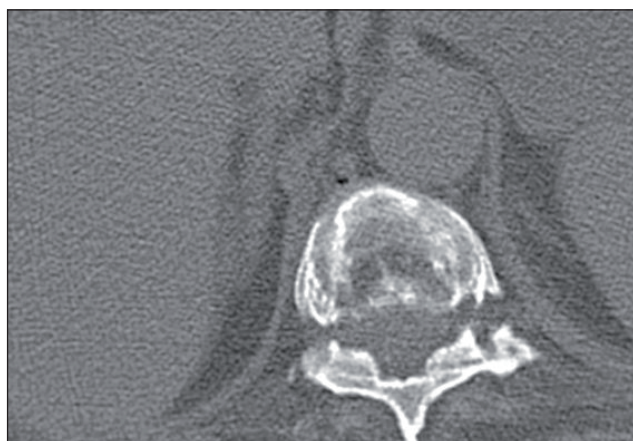


Figure 1. T10 vertebral compression fracture on axial CT.



Figure 2. Evident separations of the intervertebral disc T11-12 were determined on the sagittal T2-weighted MR image (arrow).

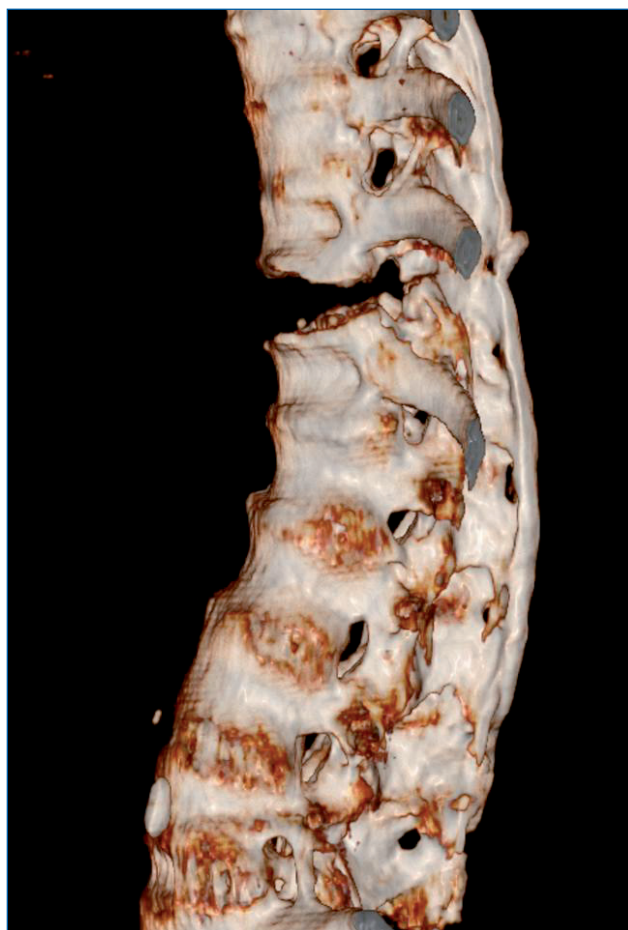


Figure 3. Separations of the intervertebral disc T11-12 on 3D CT.

The appearance of disc separation on MRI may be confused with a compression fracture. It should be borne in mind that there may be evident separation of the disc associated with fracture of the syndesmophytosis in patients with AS.

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