

Cervico-Thoraco-Lumbar Involvement of Scheuermann's Disease

Serviko-Torako-Lomber Tutulumlu Scheuermann Hastalığı

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As is known, Scheuermann's disease (SD) is a juvenile osteochondrosis of the spine, which causes a structural hyperkyphosis of the thoracic or thoracolumbar spine. It is characterized by wedge shaped vertebral bodies, irregularities of the vertebral endplates, narrowed disk spaces, thoracic hyperkyphosis and intraosseous disk herniation (Schmorl's node). It is a disease of the growth cartilage endplate, probably occurs after repetitive strain on the growth cartilage weakened by a genetic background, however the specific mode of inheritance is not clear. Different theories have been reported, such as juvenile idiopathic osteoporosis, vitamin D deficiency, release of excess growth hormone, spinal dysraphism, poliomyelitis and infections (1).

A 30-yr-old man presented with a history of chronic cervical, mid-dorsal and low back pain, aggravated by standing. He had no history of trauma. On physical examination, all spinal movements were full and pain-free. Muscle strength test and neurological examination were also normal. Radiographic evaluations showed that the patient has the kyphosis of 46° as well as Schmorl's nodes at all spine, loss of the physiological cervical lordosis, disc space narrowing, wedge shaped vertebral bodies and vertebral end plate irregularities (Figure 1). MRI findings were similar (Figure 2). The possibility of other causes such as vitamin D deficiency, release of excess growth hormone or infections were ruled out when all biochemical tests were normal. Overall, the patient was diagnosed SD with cervico-thoraco-lumbar involvement.

Scheuermann's disease (SD) can be classified into two forms, typical and atypical. The typical form is more common and involves a thoracic kyphotic pattern, often with nonstructural compensatory hyperlordosis of the lumbar spine. This accompanying curve is an attempt to compensate for the thoracic kyphosis and can be a source of pain (2). The atypical form of SD, called lumbar SD, is often seen in athletically active adolescent males who present with localized back pain and radiographic vertebral changes of the thoracolumbar junction, and is more likely to be progressive and symptomatic (3,4).

Although SD is usually confined to the thoracic and thoracolumbar spine, any part of the spine may be affected. Therefore, physician should be aware that cervical spine may also be affected and it can lead to cervical pain.

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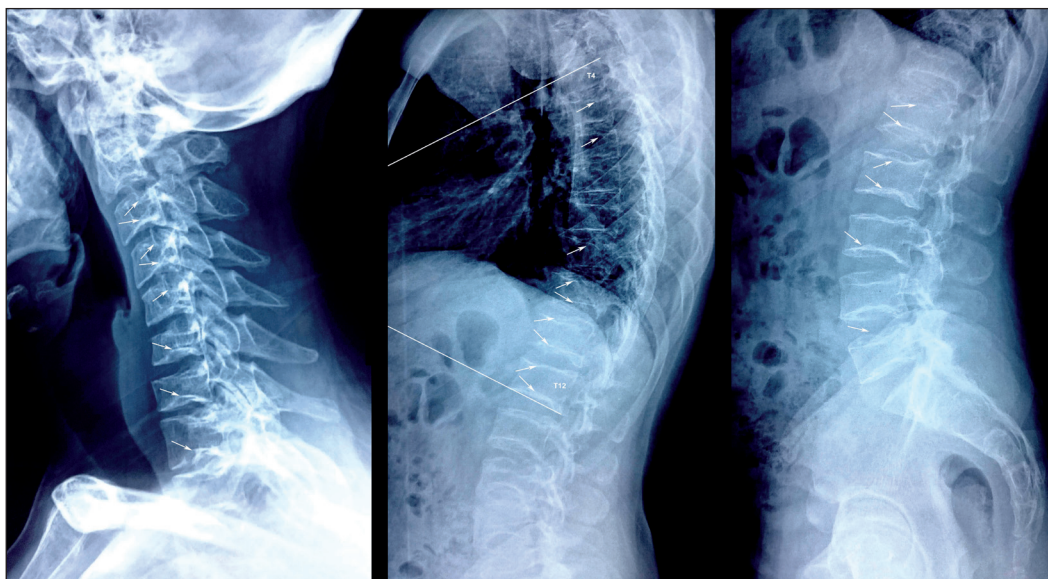


Figure 1. Lateral radiographs of the cervico-thoraco-lumbar spine of patient showing 46° kyphosis from T4 to T12, anterior wedging of vertebral bodies from T10 to T12 and narrowed disc space at T10-T11. Vertebral end plate flattening and irregularities also seen throughout all spine (arrows)

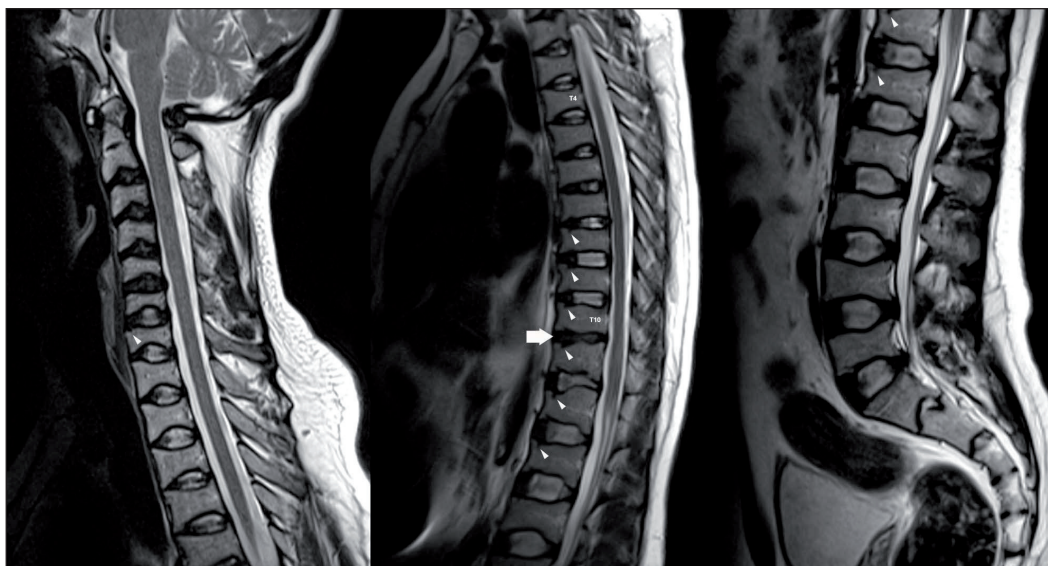


Figure 2. T2-weighted magnetic resonance images of cervico-thoraco-lumbar spine showing Schmorl nodes in the cervical spine at the C7 level and in the thoracic spine from T8 to L1 (arrowhead). Narrowed disc space at T10-T11 (arrow)

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