

## Clinical vignette

# Delayed diagnosis of vertebral fracture in long-standing ankylosing spondylitis

Sara Paiva Dinis <sup>1,\*</sup>, Ana Sofia Pinto <sup>1</sup>, Filipe Cunha Santos<sup>1</sup>, Duarte Augusto<sup>1</sup>,  
Joana Fonseca Ferreira <sup>1,2</sup>, Cláudia Vaz <sup>1,2</sup>, Nathalie Madeira <sup>1</sup>

<sup>1</sup>Rheumatology Department, Unidade Local de Saúde da Guarda, Guarda, Portugal

<sup>2</sup>Faculdade de Ciências da Saúde da Universidade da Beira Interior, Covilhã, Portugal

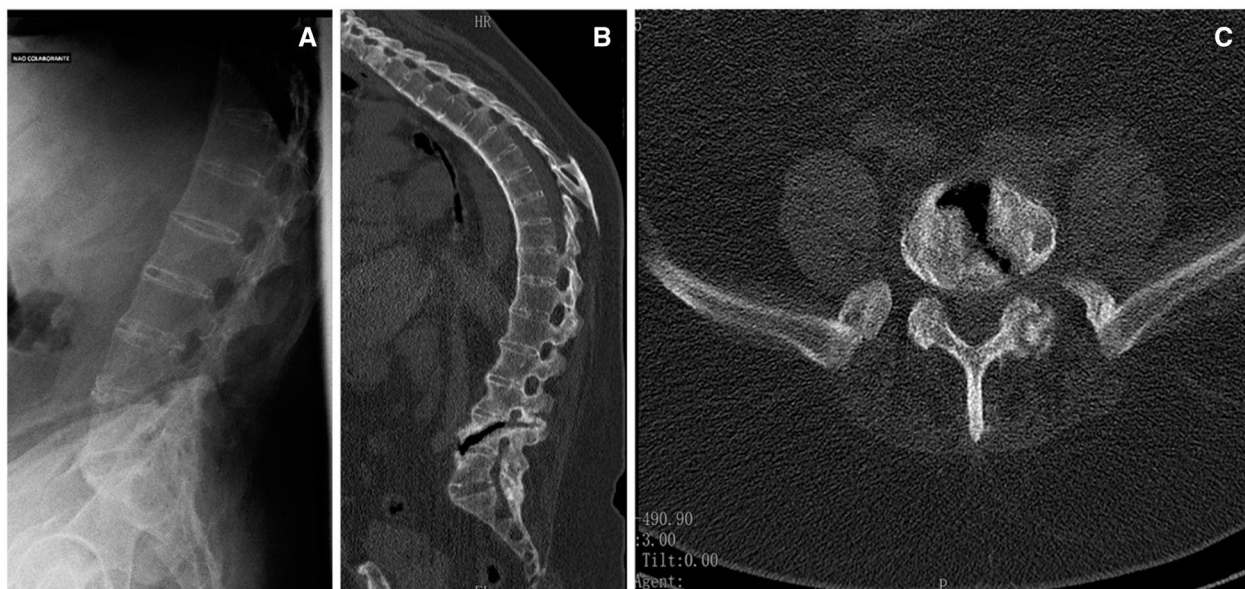
\*Correspondence to: Sara Paiva Dinis, Rheumatology Department, Unidade Local de Saúde da Guarda, Av. Rainha Dona Amélia 19, 6300-749 Guarda, Portugal. E-mail: sarapaivadinis@gmail.com

A 66-year-old male with ankylosing spondylitis (AS) was referred to our department with worsening of low back pain after a low-impact fall 12 months ago. After the injury, he was admitted to the emergency room complaining of severe low back pain and decreased strength of the lower limbs. The lumbar spine X-ray (Fig. 1) performed on admission revealed a bamboo spine, without evidence of fracture. The patient was discharged and treated conservatively with nonsteroidal anti-inflammatory drugs with partial pain relief. Nevertheless, for persisting pain further investigation was requested and computed tomography (CT) of the lumbar spine (Fig. 1) revealed syndesmophyte formation and a transvertebral fracture line crossing L4 and L5 vertebral bodies, extending through the posterior elements of L3 and L4. The increased fracture risk

in AS patients is due to chronic spine changes, including syndesmophyte formation, ankylosis and osteoporosis [1]. Spinal fractures in AS usually involve the three spine columns, and injury to the posterior osteoligamentous component is the hallmark of these fractures, which can be easily missed on conventional X-rays. Thus, patients with AS should be evaluated for acute spinal fractures using CT and/or magnetic resonance imaging following any degree of trauma despite the presence of initial negative imaging methods [1, 2].

### Data availability

The data underlying this article will be shared on reasonable request to the corresponding author.



**Figure 1.** Lumbar imaging studies of a 66-year-old man with AS following a low-energy fall. Lateral lumbar spine X-ray (A) revealing an ankylosed spine with no obvious fractures. CT scan with sagittal reformatting (B) and axial image (C) of the lumbar spine showing extensive syndesmophyte formation and a prominent oblique transvertebral fracture of L4 and L5 extending through the posterior elements of L3 and L4

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## References

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