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IMAGES IN PAEDIATRICS

# Low back pain: it may not be what it seems

## Dolor lumbar, no siempre es lo que parece

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A male adolescent aged 12 years presented with fever and low back pain of 15 days' duration following trauma to the back while playing football (the patient fell to the ground, after which another boy fell on his back, hitting it with the knee). The patient had a prior diagnosis of muscle contracture. He exhibited antalgic gait, and paravertebral pain and hypersensitivity in the lumber region. The complete blood count, C-reactive protein, procalcitonin and erythrocyte sedimentation rate values were normal. The magnetic resonance scan with contrast of the lumbosacral spine revealed a bilateral inflammatory pattern in the paravertebral space of L5 (Fig. 1). The computed tomography scan of the lumbosacral spine detected a nondisplaced fracture of the right and left pars interarticularis of L5 without spondylolisthesis (Fig. 2). The patient had a favourable outcome with rest.

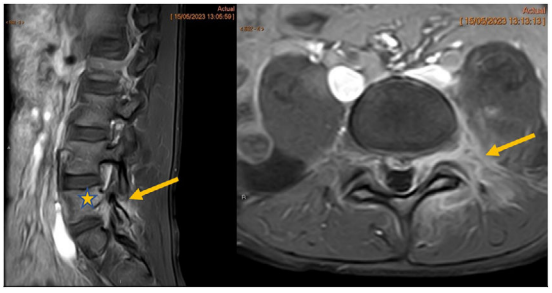

**Figure 1** Magnetic resonance image (post-contrast T1-weighted fat-saturated sagittal and axial views). Marked enhancement of the bone marrow of the pedicle and left articular processes of L5 (star) and the periarticular soft tissues (arrows), with an inflammatory appearance, probably secondary to trauma.


**Figure 2** Computed tomography image (bone kernel sagittal reconstruction at the level of the right (1) and left (2) pars interarticularis of L5). Bilateral spondylolysis, with fracture lines at the level of the pars interarticular in each side (circles), with poorer definition in the left side, accompanied by periosteal thickening (arrow).

Vertebral fractures are a fairly frequent cause of low back pain in athletes, in most cases due to stress overload

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in the posterior elements of the vertebrae.[1] Spondylolysis is defined as a stress fracture of the pars interarticularis of the lumbar vertebrae, usually due to overuse (85%–95% of cases involve the pars interarticularis of L5); spondylolisthesis refers to the displacement of the vertebral body secondary to spondilolysis.[2] Spondylolysis is graded according to the Wiltse classification; in this case, the lesion corresponded to Wiltse type II (isthmic), the most common type in athletes with stress fractures due to overuse, the traumatic aetiology in our patient was atypical.[3]

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