I-test: a 22-year-old professional soccer player with atraumatic ankle pain

QUESTION
See page 1602 for the answer

A 22-year-old professional football player presented with fierce anterior ankle pain. He was unable to play and experienced pain during normal daily activities. No recent trauma to the ankle had occurred that could have elicited the pain. The pain started suddenly during training and then gradually worsened until he was completely unable to play and even started limping during daily activities. It took 2 weeks from the initial pain onset to the first clinical visit. No associated anomalies were present. Physical examination revealed no anomalies: a (pain)-free range of motion (ROM) as well as normal plantar and dorsiflexion and negative drawer test. Conventional radiography of the foot and ankle demonstrated no abnormalities (figure 1A,B). A CT scan revealed minor radiolucent abnormalities of the talar body suspicious for a talar body stress fracture.

Figure 1  Antero-posterior and lateral conventional X-ray of the ankle, showing no abnormalities.

Figure 2  Sagittal T1 MRI image showing a low signal intensity linear bond in the talar body of the ankle.
An MRI confirmed the suspected stress fracture of the talar body. A linear band of low signal intensity was seen on sagittal T1-weighted images (figure 2). Coronal and axial images revealed a transtalar mediolateral lesion (figure 3A,B). Based on the MRI, the fracture was classified as stable without displacement. Initially, the patient was treated conservatively in a short leg non weight bearing (NWB) cast for 4 weeks, followed by a walking cast for 4 weeks. Six weeks after the first MRI was taken—because of worsening pain during the conventional treatment period—a new MRI was performed.

Figure 3  Coronal and axial ankle MRI images, revealing a non-displaced transtalar fracture.