

Sacral Stress Fracture – Wrestling

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ABSTRACT

CASE HISTORY: During preseason, a 35-year-old wrestler complained of pain in his lower back concurrently with a tingling sensation in the left thigh and buttocks. **PHYSICAL EXAM:** The wrestler was examined by a physical therapist (PT) and, while discussing prior medical history, the athlete mentioned a previous diagnosis of a mild herniated disk (Grade 1). Upon clinical examination, the athlete demonstrated a full range of motion with some discomfort in passive hip extension. The PT suggested rest and rehabilitation through electrical stimulation, alongside the strengthening of the lumbar spine and hip abductor muscles. Ten days later, the athlete presented to an orthopedic surgeon (Ortho) complaining of the same discomfort. During the examination, the Ortho noticed the same localized tenderness over the left sacroiliac joint. Results for both the Lasegue and FABER tests were negative. Although there was no significant sign of fracture or edema, the Ortho suggested obtaining lumbar and pelvis X-Rays. He prescribed anti-inflammatory medication and performed a corticosteroid injection in the left sacroiliac joint. After treatment, the athlete had immediate relief and was able to compete the following day in his competitive event. One week later, the athlete returned to the outpatient clinic complaining that the pain was still localized in the left sacroiliac joint. The Ortho performed the hop test, which was positive. The athlete was then referred for an MRI of the spine and pelvis followed by a CT scan. **DIFFERENTIAL DIAGNOSIS:** 1. Spinal Disc Herniation Aggravation; 2. Sacroiliac Joint Misalignment; 3. Sciatic Neuritis; 4. Musculotendinous Strain; and 5. Sarcoma. **TESTS & RESULTS:** X-Ray: Clear; Hop test: Positive; MRI: a) Lumbar region: Mild L5-S1 herniation (Grade 1) with the lumbar spine curvature found to be within normal limits and b) Pelvis: Edema with associated marrow changes due to a non-displaced sacral stress fracture; CT Scan: Fracture line along with sclerosis parallel to the sacroiliac joint. **FINAL DIAGNOSIS:** Stress fracture on the left, anterior column of the sacrum. **DISCUSSION:** Clear X-Rays are associated with 20%-38% of misdiagnoses of sacral fractures. When a stress fracture is suspected, MRI should be the indicated exam, followed by a CT scan. Our clinical case gives an indication of the decision-making process so that other physicians can apply lateral thinking to their own cases. **OUTCOME OF THE CASE:** 1. Rehabilitation: Rest and light weight-bearing exercises (4 months) and 2. Anti-osteoporotic treatment: Calcium and Vitamin D. **RETURN TO ACTIVITY AND FURTHER FOLLOW-UP:** Return to participation: 5-12 months