

Pelvic Avulsion Fracture: Active Sporty Teens

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INTRODUCTION:

Apophysis is the location of a growth plate with muscle attachment. When the muscle attached to the apophysis is excessively tight or overworked, it can increase tension and stress on the apophysis, subsequently causing an avulsion fracture. Avulsion fracture of the pelvic apophysis is rare. It classically occurs in adolescent during sports activity with forceful muscle contraction, excessive passive muscle stretching and quick change of movement. Most commonly avulsed apophysis is the ASIS, followed by AHS, ischial tuberosity, lesser trochanter and iliac crest. Misdiagnosis leads to disability, chronic pain, and poor sports performance. We present a rare case of ASIS apophyseal avulsion fracture during sporting events.

REPORT:

12-year-old boy complained of right hip pain following a sporting tournament at school. Patient is a marathoner and was running, fell and subsequently rolled over. Ambulating with antalgic gait thus brought to hospital. Physical examination noted patients had limited hip flexion up to 50 degree with bony tenderness along anterior aspect of the hip.

Anterior-posterior pelvis radiographs demonstrated an avulsion fracture of right ASIS. Otherwise, no radiological evidence of chronic overuse or previous injury.

Patient was treated conservatively. Advised for rest and mobilized with crutches to relax the muscle pull over the ASIS hence better healing.



Figure 1: ASIS Avulsion Fracture

At 4 week follow up, patient had complete resolution of symptoms, full active hip range of motion, no bony tenderness and mobilized independently. Radiograph showed significant callus formation. Return to sport was achieved by the 8th week as per medical advice following a self-directed rehabilitation.

CONCLUSION:

Awareness of pelvic apophyseal avulsion fracture in sporty teens should be prioritize. Understanding of anatomy allows to correctly identify the characteristic appearance and location of apophyseal avulsion injuries. Misdiagnosis compromise patient sport performances. Conservative methods in this case result in early return to sport activities.

REFERENCES:

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