

Posterior Hip Fracture Dislocation From A Non-Contact Injury In An Unlucky Young Male: A Case Report

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INTRODUCTION:

Native hip dislocations are most commonly seen following high-energy trauma, with 62–93 % of all hip dislocations following motor vehicle accidents. Posterior hip dislocations make up 90 % of dislocations in native hips with 70 % having an associated acetabular fracture, the most common of which is the posterior wall fracture comprising 25%. The motor vehicle collisions account for 60–90 % of all acetabular fractures, 20 % of which have a concomitant posterior hip dislocation. Literature on hip dislocations related to sports is sparse but a review article noted that 2–5 % of all hip dislocations occur during sports. Published case reports have presented posterior hip fracture-dislocations in sports such as football, rugby, and gymnastics. In football specifically, these injuries are associated with high-energy contact, whether with another player or the playing surface. Our case is a unique presentation of a posterior hip fracture dislocation from a non-contact injury while playing football. Understanding this scenario and investigating the mechanism will help prevent the devastating consequences of unrecognized hip dislocations

REPORT:

The patient 37 years old, with no past medical history, presented to the emergency department with a complaint of right hip pain. While warming up before the football match, he heard a pop sound over his right hip, subsequently having pain and being unable to weight bear, denying numbness or tingling of the extremity. On examination, the right limb was shortened, internally rotated, and slightly adducted. There was tenderness over the right groin and the patient was neurovascularly intact throughout the extremity. Radiographs of the hip and pelvis revealed a posterior hip dislocation with a posterior acetabular wall fracture from the CT pelvis.

The closed manipulative reduction was performed in the operation theatre however unable to reduce the dislocation. Subsequently, the patient underwent open reduction and internal fixation of the posterior acetabular wall fracture by using two spring plates and a Synthes 8-hole low-profile reconstruction plate. Intraoperatively, there is a comminuted fracture of the posterior acetabular wall with posterior hip dislocation. Post-fixation assessment showed a well-reduced fracture and femoral head that was concentric with the acetabular contour.

Figure 1: Pre-operative CT pelvis



Figure 2: Post-operative X-ray



CONCLUSION:

Our case highlights that while posterior hip fracture dislocations typically occur following high-energy mechanisms, these injuries can occur in low-energy non-contact settings.

REFERENCES:

1. T.E. Clegg, C.S. Roberts, J.W. Greene, B.A. Prather, Hip dislocations—epidemiology, treatment, and outcomes, *Injury* 41 (2010) 329–334.