

THE PELVIC INJURY DILEMMA

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INTRODUCTION

Hemi-sacralization refers to the fusion of the fifth lumbar vertebra with one side of the sacrum and may be associated with lower back pain. This congenital abnormality may present a diagnostic challenge in managing a trauma patient, as the deformity can complicate interpretation of a plain radiograph.

CASE DESCRIPTION

Following a motor vehicle accident, a 60-year-old Chinese woman reported persistent lower back discomfort. Examination revealed tenderness over the sacral region but no other signs of pelvic injury. Her neurological examination was unremarkable, and serial EFAST scans were negative. She remained hemodynamically stable. A pelvic radiograph showed a deformity in the left sacroiliac region, raising suspicion of a possible pelvic fracture. A pelvic binder was applied, and the case was referred to the orthopaedic team, who diagnosed her abnormal pelvic radiograph as hemisacralization of the pelvis without subjecting her to a CT pelvic scan.

DISCUSSION

A pelvic radiograph rules out the cause of hemodynamic instability from pelvic fracture in trauma however does not rule out pelvic injury. Plain radiograph is especially insensitive for posterior fractures involving the sacrum and iliac wings. Even CT may be only 77% sensitive for pelvic fractures in the elderly, particularly with nondisplaced posterior fractures in osteoporotic bone with some literature advocate to even consider MRI for patient with pelvic pain but negative CT imaging. Accurate identification of pelvic injury is essential during trauma to mitigate the risk of missing a pelvic injury that may lead to a devastating consequence.

CONCLUSION

Patients presenting with pelvic tenderness or deformity should be managed according to ATLS protocols for pelvic injury until proven otherwise. It's crucial to establish consensus among various teams to expedite diagnostic imaging and confirm diagnosis promptly, bypassing the traditional approach of requiring a primary team evaluation prior to imaging. Enhanced education for emergency healthcare workers is essential to underscore that CT scans represent the gold standard for ruling out pelvic injuries, rather than relying solely on plain radiographs and primary team interpretation. This ensures a more accurate and timely diagnosis, leading to improved patient outcomes.

KEYWORDS

Hemi-sacralization, Pelvic fracture