

Pelvic Fractures Classification And Management

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The commonest classification used is the Young Burgess system where the pelvic injury is divided as A, Antero Posterior Compression Injury occurs by direct trauma to anterior pelvis. B, Lateral Compression Injury caused by lateral force upon pelvis. C, Vertical Shear Injury occurs usually by fall from height and fractures are vertically oriented and D, Combined Mechanical Injury

With AO classification system, the pelvic ring fractures are graded as A, B, and C types in order of increasing severity. Type-A injuries are stable including avulsion fractures, fractures of the iliac wing and transverse fractures of the sacrum. Type-B are rotationally unstable but vertically and posteriorly stable. Type-C unstable injuries are complete disruptions of the posterior sacroiliac complex, involving vertical shear forces.

Open reduction and internal fixation (ORIF) required for All Type-C injuries, most of Type-B open book injuries and severely displaced Type-B lateral compression injuries. If the initial displacement of the disruption of the symphysis pubis (diastases and/or translation) or the rami fractures are wide (> 10 mm), a subsequent anterior approach is done. Also if displacement is > 10 mm in the anterior pelvic ring injury after posterior fixation, an anterior approach and fixation is carried out.

The sacral fracture is observed and reduced with forceps. Iliosacral screws are inserted through a separate small lateral skin incision percutaneously to avoid large soft tissue stripping on the lateral aspect of the iliac wing and wound complications.

Sacroiliac dislocation and sacroiliac fracture dislocation are fixed in the supine position with anterior 4.5-mm reconstruction or DC-plates or both using an incision at the iliac crest and exposing the internal aspect of the wing and the sacroiliac joint. Transiliac fractures are fixed with anterior 3.5-mm reconstruction plates or screws or both using the same approach. Displaced (> 10 mm) fractures of the pubic rami are fixed internally with a curved reconstruction plate with 3.5-mm screws placed along the pelvic brim (linea terminalis). Fixation of lateral fractures of the superior ramus with a long intramedullary 3.5 mm screw has been done.