

Flexion-Distraction Fracture of the Pelvis: Review of the Literature and a Conceptual Classification

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Purpose: Pelvic fractures make up 16% of all major trauma. They represent high-energy trauma associated with a high mortality rate (31%). The majority of these fractures are classified using the common classification systems, ie, Young and Burgess or Tile classifications. Some fracture patterns, however, do not fit into any fracture classification system. We present a rare case of a flexion-distractio

Methods: A 26-year-old male presented to the emergency department following a head-on high-energy motor vehicle collision. He was a restrained driver and sustained multiple injuries, including intraperitoneal urinary bladder rupture, blunt renal and hepatic trauma, left midshaft femur fracture, bilateral ankle fractures (open fracture on the right), right talus fracture, and lastly a bilateral symmetric transverse fracture of the iliac wings also involving the sacrum. This was associated with a Morel-Lavallée lesion, which was debrided and had a washout with vancomycin powder mixed in saline wash. He had sensory paresthesia in the S2-S5 region. Clinically, motor function of upper and lower limbs was unaffected. Debridement and fixation of the open ankle injury was undertaken with subsequent wound closure in the second sitting. He also underwent an antegrade intramedullary femur nail for the left femur. He required a long stay in the ICU for improved ventilation. The pelvic fracture was treated surgically by the first author.

Results: At 6-month follow-up, the patient was fully mobile and pain-free from the pelvic fracture. No adverse events were documented.

Conclusion: Symmetrical bilateral transverse fracture of the pelvis is an extremely rare injury. This fracture does not fit into any existing classification system. This is associated with high-energy trauma and management should focus on life-threatening injuries first. On the basis of the limited available literature, the fracture is associated with a relatively good prognosis and a good functional outcome can be expected. We present the first conceptual classification to help guide surgeons' clinical decision-making. Understanding that what is rare now may not be in the future, we hope to have added value to the body of science.