

## OPEN PELVIC INJURY ASSOCIATED WITH SACRAL FRACTURE (TYPE 2) CONCOMITANT OPEN FRACTURE TIBIA/FIBULA : A RARE ENTITY

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**Introduction:** Open pelvic injury with sacral fracture is a high-energy pattern and life-threatening injury. Sacral fractures are frequently under-diagnosed and often mistreated fractures that involves neurologic injury, up to 25%. In addition, presence of a neurologic deficit is the most important factor in predicting outcome. We reported a case of open book pelvic fracture with right sacral wing fracture and open fracture of midshaft right tibia/fibula complicated with right foot drop.

**Discussion:** A 24 year old gentleman, had involved traffic road accident, sustained deep laceration wound at right buttock connecting to sacroalar fracture and ipsilateral open comminuted fracture midshaft right tibia/fibula (grade 3A). There is right sacroalar fracture with transforaminal fracture (Denis zone 2), pubic diastasis and bladder injury. Aggressive initial resuscitation carried out since patient hemodynamically unstable with 6 pints blood transfusion. Then, he treated with two surgical stages: 1) supraacetabular external fixation and external fixation right tibia, and 2) plating symphysis pubis and posterior instrumentation L3, L4 with right lumbopelvic fixation. After 1 month lumbopelvic fixation, he regained full recovery of foot drop. The fact that patients with unstable pelvic ring injuries and associated hemodynamic instability or open pelvic fractures, require immediate and aggressive surgical care is undisputed. By providing immediate skeletal external fixation has been shown to efficiently prevent pelvic volume increase and provide temporary hemodynamic stability. Sacral fractures combined with pelvic ring injury are serious injuries that result in tremendous instability and a high rate of neurologic deficit in the majority of cases. The gold standard treatment consists of posterior spinopelvic fixation and anterior pelvic stabilization. Early surgical treatment for such injuries reduces complications related to immobilization and improves patient quality of life. In our case the main goal of surgery was restoring the spinopelvic stability, which is an important factor in the patient's ambulating, pain management and seat positioning.

**Conclusion:** Complex pelvic ring injury in the presence of neurological injury is very rare injury that requires high mechanism of injury, early recognition and surgical management are important to improve functional outcome.