

INITIAL MANAGEMENT OF SEVERE PENETRATING PELVIC TRAUMA IN OPERATION IRAQI FREEDOM--LESSONS LEARNED

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Background: Penetrating pelvic trauma, particularly from high-velocity gunshot wounds or fragmentation munitions, is rarely seen in civilian trauma centers. These injuries present one of the most difficult challenges to the trauma surgeon. Patients frequently have combined severe injuries to pelvic soft tissue, bony pelvis, genito-urinary tract, rectum, vascular structures, and intra-abdominal organs, and they often present in profound shock.

Methods: A retrospective review of the 31st Combat Support Hospital damage-control celiotomy database, under an IRB-approved protocol, revealed 30 patients with severe multi-system penetrating pelvic injuries. Up to 75 data points were collected for each patient, including nationality, primary and secondary mechanisms of injury, presence of protective equipment such as Kevlar helmets or body armor, physiologic data obtained and care delivered at lower echelons of care in the evacuation chain (e.g. forward surgical teams), arrival vital signs, temperature, hematocrit, base deficit, injuries documented, number and types of procedures performed, blood products administered including fresh whole blood and recombinant factor VII, and outcomes.

Results: Out of the 30 patients with severe penetrating pelvic injuries, 8 had urologic injuries, 9 had extra-peritoneal rectal injuries, and 10 had major vascular injuries. On average, patients required 4 abdominal operations for treatment of all injuries. 6 out of 30 patients died within the first week after injury (20%).

Conclusion: Management of these injuries frequently requires damage-control techniques and a staged, multi-disciplinary approach to reconstruction. The authors' experience and lessons learned will be presented.