



COMMENTS

Mandatory pelvic films for blunt trauma are not warranted if adequate physical exam possible. Components include palpation & ROM. Dx. of occasional pubic rami injuries may be delayed.

Major pelvic fractures may consist of one or more of:

- SIJ fracture w or w/o SIJ widening
- Displaced acetabular fx.
- Unstable (anterior + posterior elements)
- Multiple rami fx.
- wide diastasis pubis

GU injuries (bladder, male urethra) should be considered, particularly for anterior pelvic arch injuries. mandatory eval of abd. is usually indicated for any pelvic fracture.

Usual criteria for (+) DPL (100K) may be somewhat depending on clinical status & time from injury. Principal sources of major hemorrhage requiring operation include: abdominal, thoracic, or major renal injury and require control prior to further dx./rx. of pelvic fx. hemorrhage. Non-tx. Ex.lap. from false (+) DPL occurs <5%. Expanding pelvic hematoma at ex-lap mandates damage control approach ± packing & immediate post-op embolization.

'C' clamp is optimally applied in the OR, but may be applied in the E.D. under appropriate circumstances. 'C' clamp ex.fix placement will NOT control arterial hemorrhage & A/G is still required. Head CT (if ind.) should precede pelvic A/G. Large pelvic fx. hematomas and shock may produce 2^o respiratory compromise. THESE PATIENTS SHOULD GENERALLY BE INTUBATED.

In general, patients requiring more than 4-6 units RBC transfusion within the first 4-6 hours attributable to pelvic fx hemorrhage should undergo A/G. **HANG BLOOD EARLY!** Monitoring in these patients should consist of: A-line, CVP, interval arterial base deficit, ABG's & ICP monitoring in selected patients.

The potential for massive pelvic vascular injury should be considered in patients with evidence of massive hemorrhage. A RARE patient (who will NOT survive thru A/G) should be taken directly to the OR with this presumption.

The majority of patients will be best served by post-A/G correction of metabolic defects. Sub-urgent operative procedures (e.g. ORIF fx) should be deferred.

An occasional patient may benefit from conventional (anterior) external fixation to reduce/stabilize fx. & reduce residual venous & bone hemorrhage. The possibility of other retroperitoneal (e.g. renal) or major fracture site (e.g. femoral) hemorrhage must be considered if A/G is (-). Additional selective A/G's may be required if patient shows sx. of continued hemorrhage.

MANAGEMENT ALGORITHM FOR HEMORRHAGE ASSOCIATED WITH PELVIC FRACTURES