OPERATIONAL GUIDELINES: RADIOGRAPHIC STUDIES ON TRAUMA PATIENTS

Guidelines

1. Trauma Room Radiographic studies:
   a. Radiographic studies in the Trauma room should focus on identification of immediate threats to life.
   b. Trauma Room supine chest X-ray for all patients.
   c. Trauma Room AP pelvis.
      i. Obtain on all patients with a possible mechanism suggesting an unstable pelvic injury.
   d. Other Trauma Room films should be obtained when indicated by the patient’s injuries.

2. Wound clips: Use for identification of point of entry or exit on X-rays:
   a. On all penetrating stab or gunshot wounds.

3. Retrograde cystogram:
   a. Should be considered for all cases of gross hematuria, penetrating abdominal trauma and pelvic fractures where bladder disruption is suspected. (NOTE: A CT Cystogram may replace this study if available)
   b. Allow 300 ml of contrast agent to flow into Foley catheter and then clamp.
   c. X-ray the pelvis.
   d. Obtain repeat x-ray after emptying bladder.
   e. Cannot accept a cystogram from the abdominal/pelvis CT scan unless contrast has been injected into the bladder, i.e., a CT cystogram.

4. Retrograde urethrogram:
   a. Should be considered for all cases of gross hematuria, penetrating abdominal trauma and pelvic fractures where disruption of the urethra is suspected.
      i. Blood at the urethral meatus.
      ii. Displaced or non-palpable prostate.
      iii. Obvious perineal injury (perineal hematoma or open perineal injury or scrotal hematoma).
   b. May position patient in right anterior oblique (45°) in “bicycling” position with right hip flexed and penis placed on medial aspect of right thigh if possible. Insert small (12 Fr.) Foley catheter into the meatus for a distance of 2-3 cm. gently inject 10 – 25 ml of renograffin contrast.
   c. X-ray tube centered over pubic tubercle.
   d. If Foley catheter has been previously placed, may be performed alongside the catheter by inserting 18 gauge angiocath next to Foley.

5. CT scans:
   a. Head -- Mechanism for brain injury and
      i. GCS ≤ 14
   b. Cervical spine – mechanism for C-spine injury and
      i. Unconscious patient who is not anticipated regain consciousness within 24 hours.
      ii. C-spine tenderness
   c. Abdomen / Pelvis – Mechanism for abdominal / pelvic injury and

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i. Abdominal or pelvic pain.
ii. Substantial mechanism for abdominal injury in the comatose or unresponsive patient.
iii. Pelvic fracture on plain film.
iv. Fluid in the abdomen on FAST exam in the hemodynamically stable patient.
v. If indicated consider reformatting of T,L,S spine if chest and abdominal CT scans are obtained.

d. Spine (thoracic or lumbar) – limited to area of interest.
i. Confirm or further diagnose fractures seen on plain films or chest/abdomen/pelvis CT Scans. Evaluate severe point tenderness over midline spine.