



## REMARKS

### 1 Plain radiograph

- 1.1 Approximately 10% of patients with pelvic fracture have an associated bladder injury.
- 1.2 About 70% of bladder injuries have an associated pelvic fracture. The severity of the pelvic injury roughly correlates with the likelihood of bladder and urethral injury.
- 1.3 About 10% of male patients with pelvic fracture have posterior urethral injury.
- 1.4 Can look for any foreign body e.g. bullet.

### 2 Cystogram and urethrogram

- 2.1 Catheterization into urinary bladder should only be performed after an associated urethral injury has already been excluded by a retrograde urethrogram. Cystogram should be performed with a suprapubic catheter in a patient with urethral injury.
- 2.2 A normal cystogram cannot exclude bladder contusion (type I injury), which is a diagnosis by exclusion.

### 3 CT Pelvis with bladder contrast (CT cystography)

- 3.1 CT cystography is a variation of the traditional fluoroscopic cystogram. Instead of antegrade opacification of the urinary collecting system (as with CT urography), contrast is instilled retrograde into the patient's bladder, and then the pelvis is imaged with CT.
- 3.2 Fluoroscopic and CT cystography are considered equivalent for suspected bladder rupture.
- 3.3 CT pelvis with CT cystography is considered to be the investigation of choice for patients with blunt trauma as about 80% of patients with bladder injuries due to blunt trauma have associated pelvic fractures which can be detected by CT pelvis.

## REFERENCES

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