NORTHERN TRAUMA NETWORK NTN

Paediatric Pelvic Injuries

Key Points

CABCs First

'The first clot is the best clot'

Reduce bleeding by:
- **careful patient handling**
- **immobilizing the pelvis**
- **early blood transfusion**
- **early clotting screen**
- **early blood products / TXA**

Guideline

1. Call trauma team
2. Follow CABC protocol
3. Protect spine and pelvis
4. If fracture suspected apply sheet or binder
5. Early pelvis CT
6. Do not test pelvis for stability
7. Do not log-roll patient
8. Consider interventional radiology

Call paediatric and orthopaedic surgeon early

Associated Injuries

90% multiple injuries
60% hypovolaemic shock
>50% head injuries

Haemorrhagic Shock
+
Pelvis Fracture
=
Immediate pelvic binder
+
Massive Transfusion Protocol
+/-
Extraperitoneal pack / embolisation

Where active bleeding as a result of pelvic fracture is suspected

Initial Management

1. Splint pelvis with purpose made or improvised binder
2. Confirm diagnosis with CT
3. Determine if bleeding into peritoneal cavity or chest

Standard Operating Procedure

1. Signs of active bleeding and suspected pelvic injury: apply binder.
2. Quickly examine perineum for open wounds before placing binder
3. Place binder round greater trochanters (not iliac crests)
4. Give tranexamic acid and consider massive haemorrhage protocol
5. Do NOT examine pelvis for mechanical instability
6. Do NOT logroll patient until pelvis is cleared or stabilised
7. Immediate CT imaging abdomen and pelvis

An open book pelvic injury may be perfectly reduced by a binder. If CT does not show a fracture and patient is haemodynamically stable, the binder may be removed and a check radiograph obtained to exclude this possibility.

If pelvic injury confirmed on CT:

1. Binder can be left in place for up to 24 hours
2. If there are associated open wounds including in perineum, administer antibiotics. Unless contraindicated give co-amoxiclav, gentamycin and metronidazole
3. Consider early catheterisation. Beware urethral injury. Consult consultant paediatric surgeon / urologist if urethral injury suspected. See Urethral Injury Guideline
4. If signs of continued haemorrhage consider invasive treatment, use interventional radiology techniques if emergency laparotomy is not needed for abdominal injuries
   pelvic packing if emergency laparotomy is needed for abdominal injuries

Suspected urethral injury

Key Points

Single, gentle attempt at catheterization by experienced doctor with soft silicone catheter is permissible

If catheter will not pass or passes and drains only blood, DO NOT inflate catheter balloon

Blood stained urine mandates a retrograde cystogram

Urethral and bladder injuries in children are rare but often more complex than in adults.

Call on-call paediatric surgeon / urologist

Use size-appropriate gauge silicone urinary catheter

(For further information see BOAST 14)

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