

2009.2.5 (Paeds/Photo)

A 4 year old boy is brought in by ambulance after a 4 wheel drive vehicle accidentally reversed over his lower body an hour earlier. On arrival he is in severe pain with a GCS of 15 and blood pressure of 70/40 mmHg. After immediate intubation and commencement of fluid resuscitation, a log roll is performed.



- Describe his photograph (30%)
- Outline the most likely injuries (70%)

This photograph shows extensive superficial soft tissue injuries of the back, flanks, and buttocks, as well as perianal bleeding.

In the context of hypotensive blunt trauma, this is concerning for solid organ injury (liver, spleen), great vessel injury (IVC, aorta), or pelvic fracture. As his chest is most likely also involved, other major injuries could include cardiac injury and pneumo/haemothorax contributing to hypotension. Many other organs could also be involved but less likely to cause hypotension.

Important bits in bold

Photograph (**many ways to adequately describe this photograph – pattern of abrasion/contusion and rectal blood most important**)

lower back/buttocks or patient logrolled onto left side
tape measure presumably for weight estimation

abnormalities

marked skin pallor compared to examiners' hands suggests shock/impaired skin perfusion
particularly left lower lumbar region / left buttock
could be contribution from light source

multiple abrasions to most of visible skin with larger area of abrasion to left flank
some sparing of lower thoracic area on right side and left buttock
diffuse underlying **contusion to same areas**
general linear pattern of **injuries from left thoracolumbar to right buttock** could be in keeping with tyre
treads or dragging

bleeding apparently from rectum

appears to have some lubricant jelly intermixed – likely to have just had rectal exam

Most likely injuries

Hypotensive

- Liver/spleen laceration**
- Aortic/IVC injury**
- Renal laceration/avulsion
- (Tension) **pneumothorax/haemothorax**
- Pelvic fracture** and haematoma (perirectal bleeding)
- Femoral fracture(s)**
- Cardiac laceration/contusion

Intra-abdominal

- liver/spleen** as above
- bladder** – intra/extraperitoneal rupture
- stomach/duodenal/**small bowel** injury
- large bowel** injury (perirectal bleeding)
- mesenteric injury
- pelvic
 - fracture** +/- open
- urethral injury**
- genital injury

Retroperitoneal

- pancreatic injury
- renal laceration/contusion**
- ureteric injury

Bony injury

- rib fracture
- spinal injury**
- femoral injury
- pelvic fracture as above

Thoracic

- diaphragm injury**
- cardiac contusion/laceration**
- pneumo/haemothorax**
- lung contusion