S.A.V.E.S.

SOMERSET ACCIDENT VOLUNTARY EMERGENCY SERVICE

Affiliated to the British Association for Immediate Care

Standard Operating Procedure 008

PELVIC SPLINTING

Training

Members should have been trained in the use of the SAM sling and maintain their familiarity with the procedure by regular revision.

Indications

Pelvic fracture is common in high-energy trauma and is a potentially life threatening injury due to uncompressible haemorrhage from bone and major vessels into the pelvic cavity. Splinting the pelvis reduces bleeding and relieves pain It should be applied to all patients suspected of having a pelvic fracture(1)

PELVIC SPRINGING NO LONGER RECOMMENDED for detection of pelvic fracture. Pelvic springing has a poor specificity and sensitivity, can exacerbate bleeding and causes pain.(2)

Assessment for potential pelvic injury should be based on(1):

1. Mechanism of Injury:
   Any high-energy impact to the pelvic area may result in fracture The following situations have particularly high rates of pelvic injury.
   - Car road traffic accidents especially front seat occupants in head-on crash or side impact with sig intrusion
   - Motorcycle road traffic accidents
   - Pedestrians hit by vehicles
   - Falls from Height
   - Lower level falls in the elderly

2. History of Pain in the Pelvic Area:
   - Including lower back/sacroiliac region groin and hips
   - Only reliable if patient is alert and orientated without significant distracting injury

3. Inspection
   - Deformity Bruising or Swelling over bony prominences, pubis, perineum or scrotum
   - Open wounds or rectal, urethral or vaginal bleeding

Alert and Orientated Patients Without Distracting Injury:
Pelvic Splintage should be applied to all patients who have had a mechanism of injury likely to result in pelvic fracture who have signs consistent with pelvic fracture on inspection or have pain in the pelvic area.

Trauma Patients with Reduced Conscious Level and/or Distracting Injury:
Pelvic Splintage should be applied to all patients who have had a mechanism of injury likely to result in pelvic fracture

Exceptions:
It may not be practicable to apply a SAM sling due to the patient's body habitus or injuries e.g. impalement.

Equipment

- SAM Sling of appropriate size for patient

The Procedure

- Patients with suspected pelvic fracture should not be log-rolled [(1)]. Where the patient is accessible a scoop stretcher should be used to lift the patient on and off a spinal board or vacuum mattress.
- Apply the SAM sling as soon as practically possible once pelvic injury is suspected[(3)]
- Apply the sling as follows[(4)]
    - Unfold Sling with white side facing up. All the buckle apparatus and Velcro flap should be at one end of the sling.
    - Place sling beneath patient's buttocks at level of greater trochanters either by placing on the spinal board before scooping the patient on to the board or by applying under the thighs or small of the back and gently moving using a sawing motion
    - Wrap the sling around the pelvis and apply the black surface of the velcro flap to the black velcro strip on the other end of the sling
    - Lift the handle from the Velcro flap with one hand and firmly grasp the opposite orange handle attached to the buckle with the other hand.
    - Pull both handles to tighten sling until a click is heard.
    - Maintaining tension firmly apply the orange handle to the Velcro strap to hold its position
- Administer fluid resuscitation following normal principles
- Do not remove the sling in the pre-hospital environment and warn A&E staff not to remove until radiological confirmation of no fracture or until the patient is in theatre[(1)]

If a SAM sling is unavailable (e.g. multiple casualties) alternative methods include tying the feet together with a figure of eight bandage and/or circumferential bandage using frac straps or similar.

References

1. The prehospital management of pelvic fractures. Lee & Porter. Emerg Med J 2007;24:130-133
2. The diagnosis or pelvic fractures by "springing". Grant PT. Arch Emerg Med 1990;7:178-82
3. Immediate Stabilisation of pelvic fractures versus delayed stabilisation. Waikakul et al. J med Assoc Thai 1999;82:637-42
4. http://www.sammedical.com/sam_sling.html

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