COMMENTARY

Circumferential Pelvic Antishock Sheeting: A Temporary Resuscitation Aid

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Recently there has been increased discussion of pelvic fractures and the associated hemodynamic instability frequently found in patients with unstable pelvic ring disruption. “New” methods of external support, pelvic binders manufactured specifically for “open book” pelvic fractures, are being endorsed for use in emergency departments. In response, the authors reintroduce an inexpensive, easily applied, disposable, noninvasive, and rapid method to provide temporary pelvic stability. Application of a bed sheet circumferentially around the pelvis and greater trochanters (after an accurate diagnosis has been made) can both reduce and stabilize pelvic volume. This is a wonderful option for centers that do not see many high-energy pelvic trauma patients, providing an easy and readily available method to stabilize the pelvic ring in preparation for a safe transfer to a trauma referral center.

Accurate diagnosis is vital for appropriate use of any external pelvic support in the acute trauma setting. Reducing pelvic volume is necessary in all patients with anterior-posterior compression pelvic fractures, as it is unknown which of these patients will become hemodynamically unstable. Radiographic findings associated with this injury pattern include symphyseal diastasis, vertical rami fractures, and sacroiliac joint widening. A radiograph is only a moment in time, thus it is important to remember that the displacement at the time of injury can be far greater than what is indicated in the radiographic image due to recoil of the pelvis. Physical examination may reveal a hemipelvis that is unstable in external rotation. This fracture type must be distinguished from lateral compression pelvic fractures and acetabular fractures. Incorrect use of pelvic sheeting in this latter group of fractures can cause more harm to the patient. Careless use of external compression without first making the appropriate diagnosis can exacerbate the injury. For example, internally rotating the hemipelvis in a lateral compression fracture with a sheet or a binder could over-reduce the fracture and potentially lacerate a vessel, a nerve, or the bladder.

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