

Emergency and preoperative management of lower limb fractures

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In 2000, a review of 14 patients with bilateral femoral shaft fractures (mean age 35, median injury severity score 16) demonstrated significant resuscitative requirements, complications and mortality. Mean resuscitative requirements included over 10l of either crystalloid or colloid, and 8 units of blood. Nearly half the patients developed ARDS, and there were 2 deaths. The mean ICU/HDU length of stay was 4 days. (1)

In recent times, the concept of damage control has been introduced into trauma management. Initial resuscitation has improved, and limited surgical interventions in the early management of severe trauma have been introduced. Although often described in the context of major thoracic or abdominal trauma, it is also important in the patient with major orthopaedic trauma. (2, 3)

This paper will examine recent advances in the resuscitation of patients with femoral and pelvic fractures, and the implications on both the timing and extent of initial surgical management.

(1) Simultaneous bilateral femoral fractures: systemic complications in 14 cases. Giannoudis et al International Orthopaedics, 2000.

(2) Changes in the management of femoral shaft fractures in polytrauma patients: from early total care to damage control orthopedic surgery. Pape et al J Trauma. 2002

(3) Resuscitation before stabilization of femoral fractures limits acute respiratory distress syndrome in patients with multiple traumatic injuries despite low use of damage control orthopedics., O'Toole et al J Trauma. 2009