

High energy pelvic ring fractures in elderly patients: still a killing fracture?

Background: With an aging population, not only fragility fractures of the pelvis are more often encountered, but also the number of high-energy pelvic ring fractures in the elderly is increasing.

Aim: The aim of this study was to compare the differences in outcome for elderly patients with pelvic ring fractures caused by high-energy trauma with younger patients.

Methods: A retrospective study was performed from 2003 till 2014 in the Radboudumc Nijmegen. All patients with pelvic ring fracture due to high-energy trauma were reviewed. The patients were divided into two groups: group 1 (16-69 years) and group 2 (70 years and above). The following data were reviewed: age, gender, type of fracture according to Tile, Injury Severity Score (ISS), Shock class, comorbidities, use of anticoagulants, definitive treatment given and mortality.

Results: In total, 435 patients were identified with a high energy pelvic ring fracture, of which 43 were 70 years or older. Significantly more men were seen in group 1, but the type of fracture, ISS and shock class did not differ. Comorbidities were significantly more encountered in elderly patients. More elderly patients were treated conservatively for the pelvic fractures. In group 1, 46 patients (12%) died, mainly due to (the sequelae) of hemorrhagic shock. In group 2, 20 patients (47%) died, mainly because of severe neurotrauma. No significant differences were found between the deceased patients in both groups in the use of anticoagulants.

Discussion: Elderly people are 4 times more likely to die from pelvic ring fractures caused by a high-energy trauma, despite the fact that the type of fracture and the severity of the injuries are the same. The number of comorbidities and the high percentage of severe neurotrauma are likely to contribute to this high mortality rate.