

Surgical management of acetabular fractures - A contemporary literature review

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Surgical management of acetabular fractures is now commonplace for almost all displaced or unstable fractures. Over the last 20 years however, the patient population has aged, and there have been significant changes to safety in motor vehicles and the work-place, and people's activity types and levels have changed. The surgical specialty has also developed with time, and as a result acetabular fracture surgery today is different to 20 years ago. We have repeated a meta-analysis originally published by Giannoudis et al in 2005, to evaluate contemporary aspects of acetabular fracture patients, injury mechanisms, management, complications and functional outcomes. This paper compares data from the last 15 years to that published in 2005. We have analysed a total of 8389 fractures from 8372 patients. The mean patient age has risen from 38.6 to 45.2. A change in injury mechanisms is seen, with road traffic accidents now accounting for 66.5% of cases (previously over 80%), and a rise in the number of fractures caused by falls from 10.7 to 25.8%. There has been a marked change in the fracture types seen, with a significant rise in anterior column-based fractures (Anterior column and Anterior column posterior hemi-transverse), whilst all other fracture patterns have fallen over time. Surgery is now taking place earlier, the Kocher-Langenbeck and Ilioinguinal approaches remain the major surgical approaches used, but the Anterior Intra-Pelvic approach has become relatively common. The most significant change in complications is a substantial drop in iatrogenic nerve damage, particularly to the sciatic nerve. Post-traumatic osteoarthritis remains the major complication of this injury, with 16.9% of cases developing Matta grade III/IV changes by 44 months in this review. Heterotopic ossification also remains a common problem. Despite these changes over time, functional outcomes after acetabular fracture appear to remain similar, although there is still a lack of good quality data on medium and longer-term functional outcomes from which to assess this.

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