



Shoulder trauma update

The shoulder joint is more prone to sustaining trauma and the most common injuries to the shoulder include fractures of the proximal humerus, dislocation of glenohumeral and acromioclavicular joints and clavicle fractures. Fractures of the proximal humerus are one of the most frequent injuries involving the appendicular skeleton and account for about 6% of all the extremity injuries.¹ Proximal humerus is also a common site for osteoporotic fractures, and hence its incidence is on rising due to an increase in life expectancy of the global population. Although most of these fractures could be managed by nonoperative means,² still a significant number of these fractures are now being treated by operative methods such as percutaneous wire fixation, plating, nailing,³ an endoprosthesis. Despite the availability of numerous treatment options of the complex fractures of the proximal humerus, the management remains challenging, due to several factors like poor bone stock, comminution of the fracture and associated comorbidities in the elderly patients. Surgical intervention in these fractures may be associated with complications like loss of reduction with varus malalignment and subsequent screw cutout.⁴ Although the locking plate fixation has become the most popular treatment in fixing these fractures, the complications related to these procedures is high, with revision rates of up to 25%.⁴ Hence, it seems prudent to select the correct treatment for the right patient. Various surgical tips, like anatomic reduction, the use of calcar screws and augmentation of the fracture with bone graft and bone cement may help in achieving good outcomes. Similarly, in arthroplasty, due attention should be paid to the anatomic restoration of the tuberosities and proper placement of the prosthesis.³ The complexity of a fracture often dictates the type of fixation suitable for it, although surgical expertise and patient factors also affect surgical outcomes.⁵

Fractures of the clavicle are common and DeFroda et al.⁶ from the USA, in an observational study, found that the patients most at risk for the clavicle fractures present in bimodal nature, with the maximum incidence in the young and elderly population. The operative treatment of these fractures has increased in the recent past. The location and type of fracture are essential in decision-making as it influences management strategies.⁷ Operative treatment of clavicular shaft fractures, either with Open Reduction and Internal Fixation with pre-contoured locking plates or with intramedullary fixation with wires or nails may provide better short-term results (like improved functional outcomes, increased patient satisfaction, an earlier return to sports and lower rates of non-union) compared with conservative treatment. However, operative treatment is associated with an increased risk of complications and re-operations, while long-term shoulder functional outcomes are similar.⁷ Fractures of the lateral end of the clavicle are entirely different from the clavicular shaft fractures and in the majority of cases require operative management, as the

nonoperative management is associated with high rates of the nonunion.⁸ The precontoured locking plates with lateral extension are the right implant to fix these fractures, as they provide a stable fixation with good functional outcomes.

In this issue, we have not only covered some of the interesting articles, case reports,⁹ technical tips and clinical guidelines related to the shoulder but have also included other useful articles about Arthroplasty, Sports injury and arthroscopy, Paediatric Orthopaedics and Basic science.¹⁰ We are pleased to introduce a new series on the "Clinical Pearls." It is intended to provide a concise opinion about a clinical problem by an invited expert in the field. This issue has featured two such pearls on the management of proximal humeral fractures¹¹ and Rheumatoid arthritis.¹² The flavor of this section shall be clinical, the relevant global and the evidence base contemporary.

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