The Role of Arthroscopy in Shoulder Function Restoration After Proximal Humeral Fracture Malunion

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Methods

Background

Proximal humerus fractures represent about 4-5% of all the fractures. Our aim is to evaluate the role of shoulder arthroscopy after proximal humeral fracture malunion.

Methods

In total, 14 athletes (5 females, 9 males) with mean age 43.1 years were included in our research that carried on from March 2012 to December 2021. Physical examination and imaging evaluation via 3D Computed Tomography (3D-CT), Magnetic Resonance Imaging (MRI) and shoulder radiographs (anteroposterior, internal rotation and lateral scapular view) were used to evaluate shoulder dysfunction after proximal humeral fracture malunion. Post-op, the clinical results were evaluated with Neer grade (displacement component), pain score (1-10) as reported by the patients, UCLA score and shoulder abduction ROM measured with a goniometer compared to the prior surgery ones.









Clavicula

Results

The follow-up period lasted 2.8 years on average (range 12-43 months) and the rate was 100%. 11 of 14(78%) patients had 1 part displaced and the rest 3(22%) had 2 parts displaced according to Neer classification before surgery. The mean pain score before surgery was 8 (range 6-9) and reduced to 4 (range 2-6) after surgery. The UCLA score showed an excellent outcome (p < 0.01) with an improvement from a mean 12 (range 9-16) points pre-operatively to 28 (range 20-31) points post-operatively. Shoulder abduction ROM increased from 80 (range 70-100) to 135 (range 120-150) before and after surgery respectively (p < 0.05).







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Middle age athletes with history of proximal humeral fracture malunion could be really benefited with shoulder arthroscopy concerning the pain level, ROM range and joint function restoration.







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