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# Arthroscopic-Assisted Reduction and Fixation for the Treatment of Glenoid Fractures

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**Summary**:
Arthroscopic-assisted reduction and fixation for the treatment of glenoid fractures is an effective method.

**Abstract**:
BACKGROUND
Recently, arthroscopic reduction and fixation with either suture anchors or screws for Ideberg type I glenoid fracture was well reported, but that for other Ideberg type of glenoid fracture was few reported. Since 2008, we used glenohumeral arthroscopy to control the reduction and fixation for all cases of glenoid fractures. The purpose of this study was to evaluate the clinical results of the arthroscopic-assisted reduction and fixation for glenoid fracture.

MATERIALS & METHODS
We treated 39 acute glenoid fractures by arthroscopic reconstruction, at a mean of 24.6 months (range, 12-77 months). There were male 21, female 16, with average age of 42 years (range, 20-76 months).. According to Ideburg's classification, the type of fracture was follows: (type Ia :2 cases, type Ib :2 cases, type II :1 case, type III: 4 cases, type IV: 1 case, type V: 5 cases, type VI: 0 case). 7 cases in type III, IV and V combined with acromio-clavicular dislocation., 2 cases in type V combined with clavicle fracture. In type Ia and Ib fracture, bony fragment was repositioned and fixed by suture anchors or screws. In type II and III fracture, bony fragment was fixed by screws. In type IIV and V fracture, arthroscope was used assistance devise. Clinical results were evaluated according to American Shoulder and Elbow Surgeons (ASES) score, Constant score. The translation of bony fragment was evaluated by CT and 3DCT image.

RESULTS
The average postoperative ASES score was 93 points (range, 74-100 points). The average postoperative Constant score was 94 points, (range, 82-100 points). There was no case that had apprehension, shoulder instability and severe limitation of range of motion in external rotation. In type I fracture. 2 cases in type IV and V were severe limitation of range of motion in external rotation. The average of gap between bony fragment and glenoid surface was 2.2mm in type Ia and Ib, 1.2mm in type II and III, 1.3mm in type IV and V, but all cases gained bone union.

CONCLUSION
Arthroscopic-assisted reduction and fixation for the treatment of glenoid fractures is an effective method.