



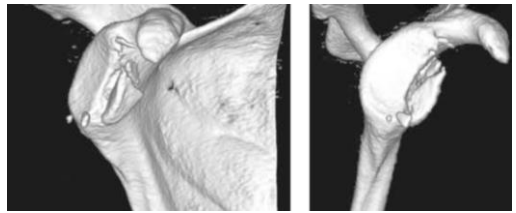
# All-Arthroscopic Reconstruction of Malunited Anteroinferior Glenoid Rim Fractures

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## Aim

A medially displaced Glenoid fracture fragment malunited to the glenoid rim is described according to Bigliani as Type II. Many arthroscopic procedures for the treatment of glenoid rim fractures have been described in recent years, including fixation with screws, transglenoid suture fixation, suture anchor fixation, and double-row bony Bankart bridge fixation. To our knowledge no all-arthroscopic treatment of Bigliani Type II malunited Glenoid rim fracture has been described in the Literature.

## MEDIANLY DISPLACED MALUNITED ANTERIOR GLENOID RIM FRACTURE



## Methods

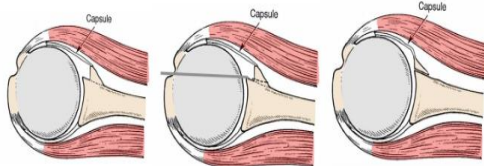
An all-arthroscopic approach to release, reduce and reconstruct the fragment with transosseous suture fixation when the width of the fragment is more than 1 cm, is done in five cases of recurrent anterior shoulder dislocation with type II Bigliani Glenoid fracture.



Surgery is done in a sitting position with the arm hanging.

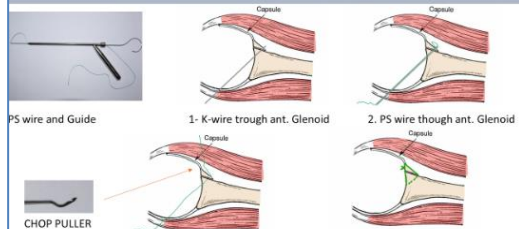
After release of the fragment with an arthroscopy osteotome, the fragment is mobilized and reduced to its anatomical position, then with the help of a guide and a penetrating suture wire, the fragment is fixed to its anatomical position after abrading the two surfaces to get a bleeding site. After fixation and arthroscopic L-cut inferior capsular shift is done to treat the anterior capsular redundancy which will give more stability to the Glenoid fragment. All cases were immobilized for 3 weeks followed by partial immobilization for another three weeks. Then 3 to 4 months rehabilitation.

## MEDIANLY DISPLACED MALUNITED ANTERIOR GLENOID RIM FRACTURE



1. Medially displaced malunited ant. Glenoid    2. Osteotomy    3. Fragment Mobilization

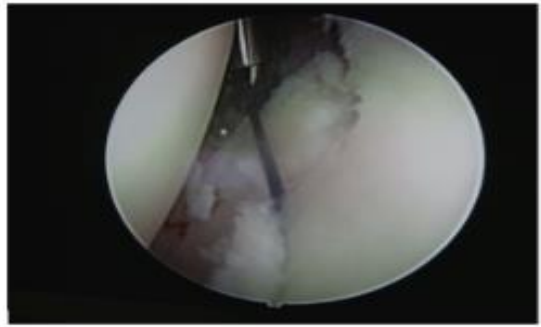
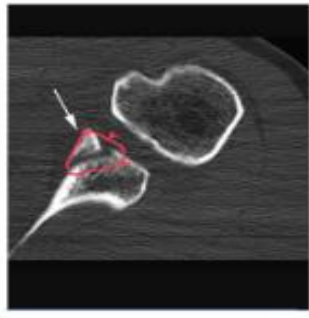
## FRAGMENT FIXATION Techniques we use (PS wire)



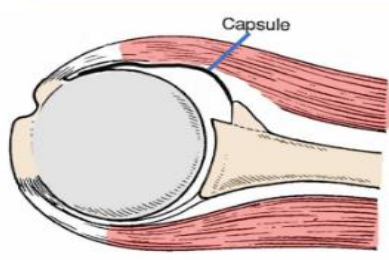
PS wire and Guide    1- K-wire trough ant. Glenoid    2. PS wire through ant. Glenoid  
CHOP PULLER    3. Suture pulled through capsule with Chop puller    4. Suture tying and fragment fixation



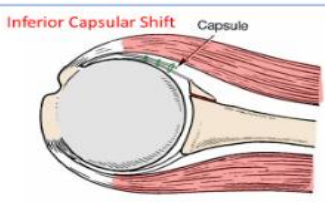
# TRANSOSSEOUS SUTURE FIXATION



## Recurrent Anterior Shoulder Dislocation with malunited Glenoid Rim fracture



Redundancy and enlargement of the Ligaments and Capsule



**Stabilization of the Fragment by medially Shifting the capsule and Cast Immobilization 4-6 Weeks**



### Results

All patients were able to normally use the arm in all daily activity and 3 of them were able to practice high performance sport. No complication was noticed, all cases had a good radiological healing.

### Conclusions

## CONCLUSION

- The techniques is not using metal implants and thus applicable in cases of osteoporosis which is present in 70% of patients above 70y of age and in cases of small fragments or comminuted Glenoid were hardware as screws or Anchors can loose.
- Much less complication as no implants are used .
- In cases of failure or recurrence, a less -difficult revision surgery is needed.
- Advanced arthroscopic skills are required.

A Safe procedure avoiding complications of use of potentially harmful hardware such as screws and in cases of failure or recurrence, a less-difficult revision surgery is needed. Advanced arthroscopic skills are required.