Arthroscopic Partial Radial Head Excision of posttraumatic partial radial head non united fracture and capsular - annual ligament repair as an alternative to head replacement of head resection; technique and clinical outcome

Basim Fleega MD

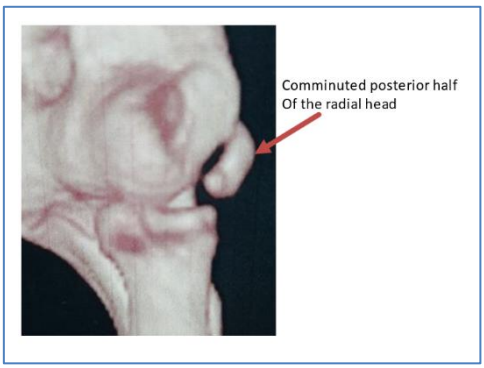
Shoulder Service Global Orthopedic Clinic Giza, Cairo EGYPT / Orthopedic Department University Hospital, Asyut University, Asyut, EGYPT

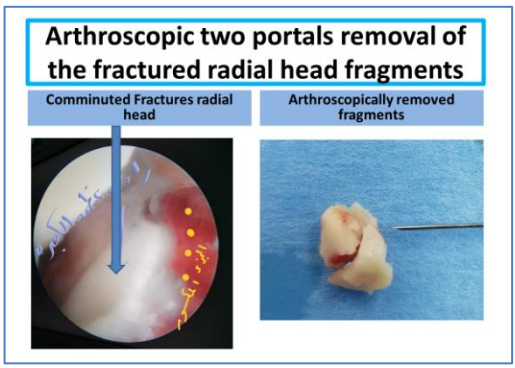
Aim

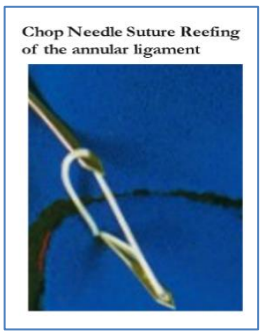
This study describes a new technique for treating partial radial head fracture by arthroscopic excision of a partial head fracture and ligament tightening as an alternative to complete radial head resection, The main complication of radial head fracture is elbow stiffness consequence of ligament injuries due to the surgery. There is no publication in the literature dealing with partial head fracture through arthroscopic removal of the fragment and tightening of the capsule.

Methods

Five cases with 30 to 50% fragment fracture from the radial head in 4 females and one male were operated. With a 30° 4mm scope the arthroscopic surgery was done by removing the fragment and suturing the capsule using special instruments (chop needles) followed by immobilization for 6 weeks.







Results

The time to surgery following injury was one week to two weeks. The patients had 3 weeks rehabilitation after 6 weeks from surgery. They were able to move the elbow in all directions with a full range of motion 2 months after the surgery. The 4 months postoperative follow up showed an average supination was 70° and pronation was 75° . There was no instability of the head and no complications. The patients were able to go back to normal manual work 3 months after surgery.

Conclusions

Arthroscopic resection of the fractured radial head fragment and tightening repair of the ligament and capsule followed be immobilization has good postoperative clinical outcome and is a good alternative to head replacement or head resection.