

Outcome of percutaneous fixation and locked plates in proximal humerus fractures

Hatem A. Kotb, md , Waleed A. Eltohamy, MD, Mohamed S. Arafa,MD, Ahmed M. Ismail,MSc.

Abstract

Background

Several treatment modalities have been proposed depending upon the fracture pattern, patients' age, level of activity and, bone stock, amount of displacement of the fragments and associated medical co-morbidities: conservative treatment, open reduction and internal fixation (ORIF), percutaneous fixation.

Aim of the Work

The aim of the study is to compare the functional outcome of the closed reduction of proximal humerus fracture using kirsherner (K-wires) fixation versus open reduction and internal fixation with proximal humeral internal locking system (PHILOS plate).

Patients and Methods

This study was performed on 40 patients from January 2017 to may 2018 with mean age 45 years old, range from 18 to 70 with 2, 3 and 4 part fractures according to Neer's classification [1,2], patient was randomized to either (group 1) includes 20 patients who were treated with open reduction and internal fixation and (group 2) who were treated by percutaneous K-wires fixation. Functional evaluation was done according to ULCA score [3], these cases were checked with standard X-rays and CT scan.

Results

The mean follow up of UCLA score[3] was 30 points (range from 26 to 34) points in (group 1) which is good results and 31 points (range from 27 to 35) points in (group 2) which is also good results. Values varied depending upon fracture type with worst values in 4 part fractures in each group.

Conclusion

each procedure having its advantages and drawbacks. We found that fixation with percutaneous K-wires presented an efficient treatment option with the advantages of minimal invasive technique and soft tissue dissection while PHILO'S plate fixation provided stable fixation with minimal implant problems with ability to perform early range of motion exercises to achieve acceptable functional results.

Keywords

Proximal humeral fractures percutaneous fixation, PHILOS plate, Percutaneous K-wires.

القائم بأعمال عميد الكلية

القائم بأعمال رئيس القسم

أد/ أيمن عيسوى

د/ حاتم قطب