VOLUME - 12, ISSUE - 08, AUGUST - 2023 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Orthopaedics

FUNCTIONAL AND RADIOLOGICAL OUTCOME OF PROXIMAL HUMERUS FRACTURES TREATED WITH LOCKING COMPRESSION PLATE (PHILOS PLATES)

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ABSTRACT Proximal humerus fractures account for about 4 to 5% of all fractures. Non operative treatment for fractures of proximal humerus in elderly patients resulted in pain, stiffness, loss of function and muscle power, hence operative treatment is preferred. Among various operative techniques PHILOS plating has gained importance as it has various advantages and few complications over other traditional implants. **Source Of The Study:** Santhiram Medical College and General Hospital, Nandyal. **Study Design:** Prospective study. **Sample Size:** 20 patients of either sex. **Study Period:** August 2022 to January 2023.

KEYWORDS : PHILOS PLATE, Constant shoulder score

INTRODUCTION

Proximal humerus fractures account for about 4 to 5% of all fractures. It accounts for up to 45% of all humeral fractures. Non operative treatment for fractures of proximal humerus in elderly patients resulted in pain, stiffness, loss of function and muscle power, hence operative treatment is preferred. Among various operative techniques PHILOS plating has gained importance.

Advantages of PHILOS plate: 1) It can be used in elderly osteoporotic patients. 2) It can be used in complex three part and four-part fractures.3) fixed angle provides stable screw fixation within the head.4) It provides great resistance against bending and tortional forces.5) The additional holes permit fixation of rotator cuff with greater tuberosity.

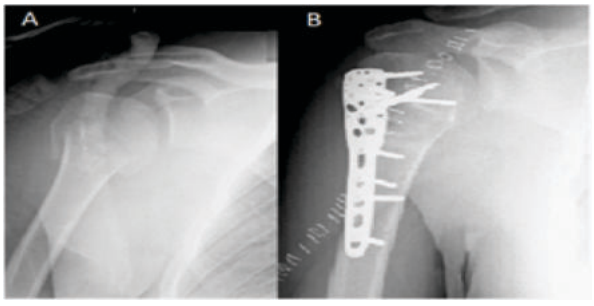

Figure 1: pre op and 2 months follow up x-ray.

Table – 1 Outcome Of Our Study

FUNCTIONAL OUTCOME	No. Of Pts.
Excellent (86-100)	7 (35%)
Good (71-85)	10 (50%)
Moderate (56-70)	2 (10%)
Poor (0-55)	1 (5%)
RADIOLOGICAL OUTCOME (time for union in weeks)	No. Of Pts.
6-8 Weeks	8 (40%)
8-10 Weeks	12 (60%)
10-12 Weeks	0

Inclusion Criteria:

(i) Patients with proximal humerus fractures aged more than 18 years (ii) Satisfy Neer's criteria for operative displacement i.e., displacement of>1 cm between the major fracture fragments or angulation of the articular surface of >45 degrees. (iii) Neer's two-, three- and four-part fractures. (iv) Patients who have given written informed consent. Exclusion Criteria: Patients with (i) Open fractures (ii) Pathological fractures (iii) Associated neurovascular injury (iv) Associated head injury.

RESULTS

The functional outcome was graded according to the Constant shoulder score. The results achieved are shown in the above table no-1. In our study, the average age of the patients was 51 years, we followed the Neer's four-part classification. There was a predominance of two-part fracture in our study (60%), of which greater tuberosity fracture were the most common. Open Reduction and Internal Fixation (ORIF) was associated with good to excellent results in more than 80% of patients. All fractures united and the average time taken for union was approximately ten weeks. One patient with three-part fracture went for malunion. Two patients had joint stiffness. One had heterotrophic ossification. Finally, a prolonged closely monitored and well defined program of rehabilitation was necessary to obtain the best functional results.

CONCLUSIONS

Finally, we concluded that displaced proximal humeral fractures when treated surgically produce greater range of movements (ROM), less pain and less stiffness. Functional outcome is better with isolated fractures than with fracture dislocations. Functional outcome of 2-part fractures is better than 3 part and 4-part fractures. Radiological outcome assessed by means of quality of reduction and union of fracture in two- and three-part fractures is better than in four-part fractures.

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