

Functional Outcome Of PHILOS For Unsalvageable 4-Part Proximal Humerus Fracture – A Case Report

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Introduction:

Four-part proximal humerus fractures are often associated with high risk of osteonecrosis and subsequently poor functional outcome post fixation. Arthroplasty is highly recommended in this group. However, the substantial cost is a hindrance to patients of low-income group. This case highlights the functional outcome of a patient who has undergone PHILOS plating for a four-part proximal humerus fracture.

Report:

A 46-years-old lady involved in a motor vehicle accident and sustained closed four-part proximal humerus fracture with splitting of the humeral head (Fig.1A and 1B). Unfortunately, arthroplasty was beyond her financial means thus PHILOS was planned. Surgery was performed at post trauma day 9 and was uneventful. Intra-operatively, autogenous bone graft was utilized to address bone loss and biceps tenotomy was done. A 3-hole Synthes PHILOS was used for fixation (Fig. 2A and 2B). After 4 months of rehabilitation, patient attained a DASH score of 3.3%. In terms of active range of movement; forward flexion and shoulder abduction was 150°, external rotation 50° and internal rotation up to T10 was achieved. This functional outcome was satisfactory to patient daily requirement and able to return to work.

Conclusion:

Treatment of 4 part proximal humerus fracture remains challenging¹. Functional outcome depends on good quality of bone stock, stability of the implant and good fixation². In conclusion, PHILOS provide to be affordable and feasible option to shoulder arthroplasty for severely comminuted fracture of the proximal humerus.

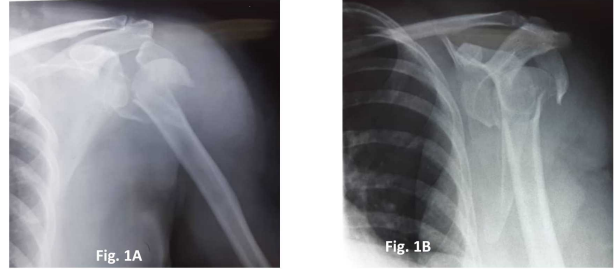


Figure 1A and 1B : Pre operative plain radiograph AP and Lateral view

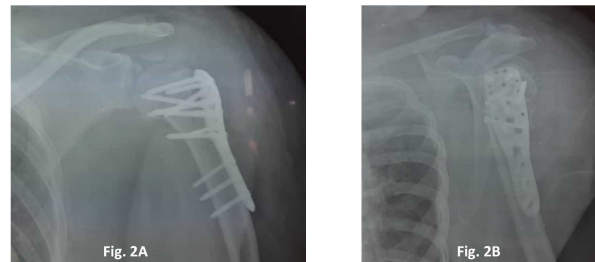


Figure 2A and 2B: Post operative plain radiograph AP and Lateral view

References:

1. Gaheer RS, Hawkins A. Fixation of 3- and 4-part proximal humerus fractures using the PHILOS plate: mid-term results. *Orthopedics*. 2010 Sep 7;33(9):671
2. Lill H, et al. Proximal humeral fractures: how stiff should an implant be? A comparative mechanical study with new implants in human specimens. *Arch Orthop Trauma Surg* 2003;123:74-81.