

REVERSE SHOULDER ARTHROPLASTY AS A SALVAGE PROCEDURE FOR COMPLICATED CHRONIC FOUR-PART PROXIMAL HUMERUS FRACTURE: A CASE REPORT

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INTRODUCTION:

The proximal humerus is the third most common fracture site after the hip and distal radius in older individuals, accounting for nearly 10% of all fractures in the elderly [1]. For displaced fractures, technical challenges exist due to fracture displacement and comminution, poor bone quality, and patient-related concurrent medical comorbidities. Open reduction internal fixation (ORIF) of these fractures is viable but technically challenging and associated with a high complication rate. Recently, reverse shoulder arthroplasty (RTSA) with tuberosity repair has become a popular and successful option for treating these fractures. We reported a case of implant failure following internal fixation of comminuted proximal humerus fracture successfully salvaged by reverse shoulder arthroplasty procedure.

CASE REPORT:

A 73-year-old gentleman with a medical history of diabetes mellitus, hypertension, dyslipidemia, and chronic kidney disease was referred to a national university hospital following a fixation failure of a 4-part-proximal humerus fracture. The patient experienced persistent pain with a pain score of 8/10 over the right shoulder since being discharged from the hospital. Radiographs of the right shoulder demonstrated loosening of the proximal locking screw, screw penetration, the collapse of the humeral head, and a prominent fracture line [Figure 1]. After proper pre-operative planning, a decision of salvage procedure with removal of the right PHILOS plate and right reverse shoulder arthroplasty was planned. Post-operative radiographs of the right shoulder showed a

secure fixation and placement of the prosthesis [Figure 2].

Figure 1

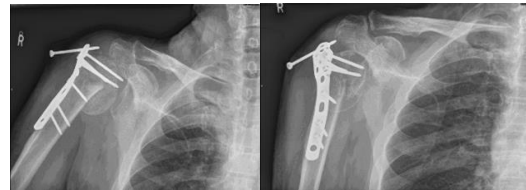


Figure 2



CONCLUSION:

The salvage procedure in chronic 4-part proximal humerus fracture is a technically challenging procedure that requires proper pre-operative planning. RSA is indicated in patients older than 70 years who have a three- or four-part displaced fracture with a high risk of avascular necrosis of the humeral head and/or poor-quality comminuted tuberosities and/or a pre-existing rotator cuff tear.

REFERENCES:

1. Agudelo J, Schurmann M, Stahel P, et al. Analysis of efficacy and failure in proximal humerus fractures treated with locking plates. *J Orthop Trauma* 2007;21(10):676–81.