

Anatomical Buttress Locking Plate in Body of Scapula Fracture; Functional Outcome

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INTRODUCTION:

Management of scapula fractures is paramount in achieving functional wellbeing, of particular interest in this study are Ideberg 4-6 fractures where a buttress plate is required and functional outcomes were subsequently assessed.

MATERIALS & METHODS:

The retrospective study done at HTJ Seremban (1/2019-2/2022) includes 34 scapula fixation performed with 19 using a buttress plate. However only 10 patients were available for further evaluation. A posterior modified Judet approach was performed for scapula body access prior to anatomical buttress locking plate utilization (figure1). Shoulder extension and external rotation were assessed at intervals with a Rowe score performed at 6 months.

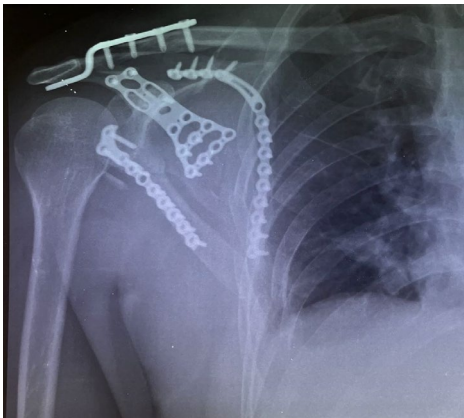


figure 1 xray post fixation

RESULTS:

Three months post surgery, the mean shoulder extension and external rotation was 52.5 and 42.5 respectively. Improvement in ROM of shoulder was significant after 3 months. All patients achieved a full ROWE score except for one due to a clavicular hook plate.

DISCUSSIONS:

Body of scapula fractures are subjected to shearing forces by teres minor and infraspinatus,

creating a floating fragment thus predisposing it to malunion and muscle entrapment. The contour of the plate (figure2) and locking system is able to address the fragment evident by the improvement in function¹. Marked improvements observed, after 3 months as physio was delayed for soft tissue recovery as the surgical approach involves stripping of deltoid and infrapinatus fascia with a subsequent deltoid myodesis. Previous studies also showed similar improvements but didn't focus on outcomes with plating of scapula body².



Figure 2 Anatomical buttress locking plate

CONCLUSION:

Anatomical buttress plate for body of scapula fracture helps in full functional recovery in shoulder extension and external rotation by preventing muscle entrapment.

REFERENCES:

1. Mohd Asihin MA et al (2019) Open Reduction and Internal fixation of Extraarticular Scapular Neck And Body Fractures With Good Short Term Functional Outcome Front. Surg 6:71
2. Owens BD, Goss TP (2006) The Floating Shoulder J Bone Joint Surg [Br] 2006;88-B:1419-24