

Rhomboid Major Muscle Sparing: Sub-scapular Multi-rib fracture Plating

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INTRODUCTION:

Surgical stabilization of fractured ribs has been shown to improve trauma related outcomes. This report details two cases of rhomboid major muscle sparing sub-scapular multi-rib fracture plating.

REPORT:

Case 1, 37-year-old man, alleged MVA and presented with left shoulder & chest pain. On examination, tenderness on posterior left chest & reduced range of motion of left shoulder. CT scan revealed posterior 6th, 7th & 8th rib fracture, neck of left scapula fracture & left clavicle fracture.

Case 2, 43-year-old man, alleged MVA with his motorbike hit a bus. He presented with right shoulder & right posterior chest pain. On examination, tenderness on posterior right chest & reduced range of motion of right shoulder. CT scan demonstrated posterior 5th, 6th, 7th & 8th rib fracture, neck & body of right scapula fracture & right clavicle fracture. Both patients were underwent surgery on day-14 post-trauma. Patients was placed in lateral position. Cleaned & draped. Fixation of clavicle was done on direct anterior approach. Subsequently, proceed with fixation of scapula with direct incision on spine of scapula. For fixation of ribs, horizontal incision was made on the center of between two fractured ribs, confirmed with image intensifier. The floor of incision is formed by the rhomboid major. A blunt fashion with use of finger dissection, starting from underneath the inferior angle of the scapula and extending cephalad by dissecting the scapulothoracic bursa. Once the plane is developed, we use a scapular retractor to expose 7th & 8th ribs. Positioning of instrumentation & the contoured plate over the ribs was confirmed with intraoperative image intensifier.

Patient was allowed for pendulum exercise.



Figure 1: Pre-operative radiograph

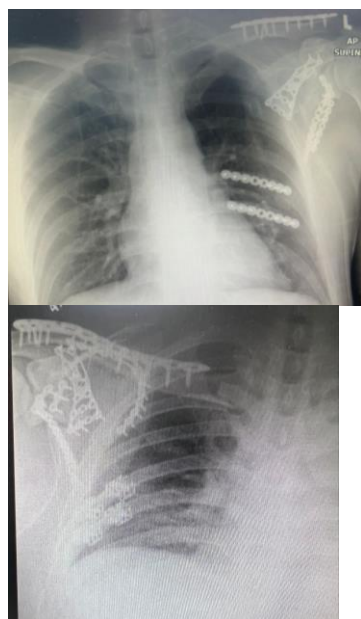


Figure 2: Post-operative radiograph

CONCLUSION:

We recognize that fractures in this area may not always need to be fixed. However, given our patient's smooth clinical recovery, we believe this will become more beneficial as surgical morbidity is decreased.

REFERENCES:

1. Senekjian L., Nirula R. Rib fracture fixation: indications and outcomes. Crit. Care Clin. 2017;33(1):153–165.