

# The Scapulathoracic Dissociation With Superior Shoulder Suspensory Complex Injury

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## INTRODUCTION:

Scapulothoracic dissociation was first described by Oreck et al<sup>1</sup>, consisting of a laterally displaced scapula with separation of ipsilateral acromioclavicular joint, disruption of brachial plexus and subclavian vessels which often associated with superior shoulder suspensory complex (SSSC) injury.

## CASE REPORT:

A 41-year-old male involved in a high velocity motor-vehicle accident. Upon arrival, he was hemodynamically stable. Diffuse swelling with deformity noted over his right clavicle and scapular region. He was able to perform active movement of the wrist and finger but impaired shoulder function with intact distal neurovascular. Chest radiograph showed haemothorax, multiple right ribs fracture and displaced right clavicle with widening of right medial border of scapula and thoracic spine. A CT Thorax Angiography revealed no evidence of vascular injury. Subsequently, he underwent plating of clavicle. 6 weeks' post operation, he achieved full shoulder range of motion.

## RESULTS:

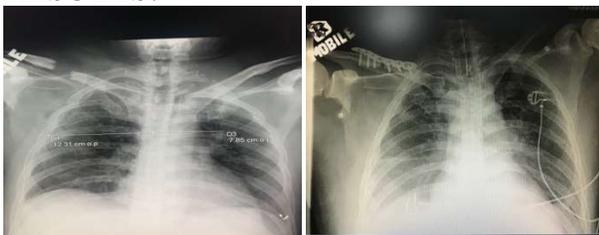


Figure 1

Figure 2

**Fig.1.** Radiographic showing lateral displacement of scapula with widened scapulathoracic ratio of 1.57.

**Fig. 2.** Radiographic post-plating of right clavicle with restoration of scapulathoracic distance.

## DISCUSSIONS:

SSSC is a ring-like structure at superior aspect of shoulder consisting of glenoid process, coracoid process, coracoclavicular ligament, distal clavicle, acromioclavicular joint and acromial process which has important role in shoulder stability and biomechanics. Lange<sup>2</sup> postulated that scapulathoracic dissociation resulting avulsion of brachial plexus was due to intact clavicle acting as a fulcrum. In this case the fulcrum, clavicle, was fractured which explained the reason for the absence of major neurovascular injury. Clavicular fixation was done to restore appropriate length and prevent further traction to the underlying neurovascular structures. Surgical fixation of clavicle fracture restores the stability of SSSC ultimately treating the scapulathoracic dissociation.

## CONCLUSION:

Stability of shoulder in scapulathoracic dissociation can be achieved by restoration of SSSC.

## REFERENCES:

1. Oreck-SL et al. radiographic sign of neurovascular disruption. *J Bone Joint Surg Am* 1984;66:758-63
2. Lange et al. Traumatic lateral scapular displacement. *Journal of Orthopaedic Trauma* 1993(7):361-366