A Rare Injury Of Traumatic Scapulothoracic Dissociation - An Emerging High-Energy Trauma In Medical Literature

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INTRODUCTION:

Scapulothoracic dissociation (SD) is a devastating consequence of high-energy trauma sustained by the shoulder girdle causing complete or partial avulsion of shoulder girdle from lateral thoracic wall that can easily result in rapid mortality. Since described by Oreck et al. in 1984, SD has been reported in a handful of journals and individual case series, though is still considered a rare occurrence in the context of shoulder injuries.[1] SD presents with diverse combination of injuries to its components involving osseoligamentous structures around shoulder girdle, subclavian or axillary artery injury and the brachial plexus. However, the injury invariably presents with intact overlying skin and is commonly referred to as "closed forequarter amputation". [2]

CASE REPORT:

A 43 years old gentleman presented to our hospital with alleged motorcycle skidded with high impact fall on the left side. Post trauma, patient had loss of consciousness and also retrograde amnesia. On clinical examination, noted abrasion wound and haematoma extending from left shoulder up to left forearm, loss of sensation of entire left upper limb, power 0/5, radial/ulna and brachial pulses not palpable with clod clammy hand compared to contralateral upper limb. Bedside ultrasound Doppler unable to appreciate any wave form from brachial to radial pulses. Xrays showed left scapulothoracic dissociation with left humerus midshaft fracture. Patient was then proceeded with urgent CTA of left upper limb. CTA showed complete truncation of distal left subclavian artery, no opacification of artery distal to the lesion and associated with adjacent soft tissue swelling. Patient was thus referred to referrals hospital of vascular team however in view of level of arterial injury and also prolonged ischemic time, limb is unsalvagable. Patient was then proceeded with left transhumeral amputation. Post operation, patient was discharged well from the ward after 10 days of hospitalisation.

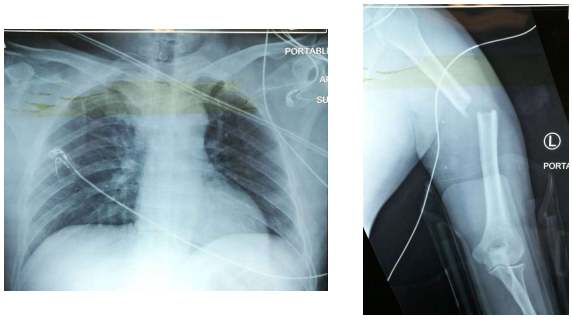

Figure 1&2: CXR with scapulothoracic dissociation and xrays of left humerus fracture.

DISCUSSIONS:

SD is a devastating forequarter injury characterized by brachial plexus damage, major upper extremity musculoskeletal disruption, and exsanguinating hemorrhage: our patient survived with early detection and aggressive management. Prompt recognition and aggressive management of SD's multiple injuries are crucial. A methodic approach tailored to each patient is necessary to preserve life in this dramatic and often complex injury.

REFERENCES:

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2. Brucker P, Gruen G, Kaufmann R. Scapulothoracic dissociation: evaluation and management. Injury 2005;36:1147-55.