SCAPULOTHORACIC DISSOCIATION

PETER L ALTHAUSEN, MD/MBA

RENO ORTHOPEDIC CENTER

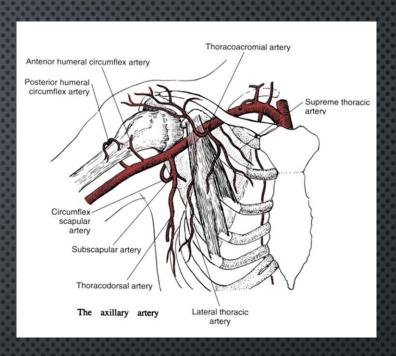
UCSF Course 2023

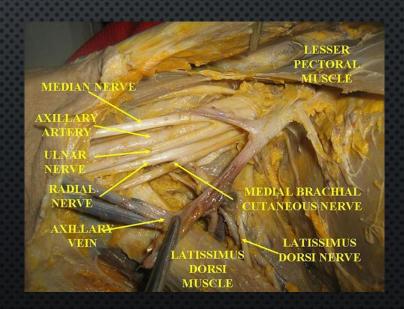
BACKGROUND

- RARE BUT DEVASTATING CONDITION
- LIMB AND LIFE THREATENING INJURY
- TRACTION INJURY TO UPPER EXTREMITY CAUSING DISRUPTION OF SCAPULOTHORACIC
 ARTICULATION
- Many types
 - AC SEPARATION
 - SC DISLOCATION
 - DISPLACED CLAVICLE FRACTURE

ASSOCIATED INJURIES

- VASCULAR LESIONS IN 88%
 - SUBCLAVIAN ARTERY
 - AXILLARY ARTERY
- NEUROLOGIC INJURY 94%
 - BRACHIAL PLEXUS





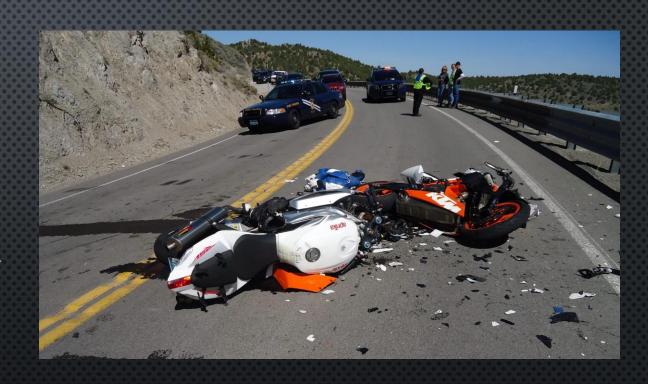
POOR OUTCOMES

- FLAIL EXTREMITY 52%
- EARLY AMPUTATION 21%
- DEATH 10%
- Early recognition and good treatment protocol can decrease the substantial morbidity and mortality associated with this condition



CLINICAL DIAGNOSIS

- HISTORY HIGH ENERGY TRAUMA
- SIGNIFICANT SWELLING AND CREPITANCE
- GOOD NEUROVASCULAR EXAM IS CRITICAL
 - DECREASED OR ABSENT PULSES
 - Neurologic deficits



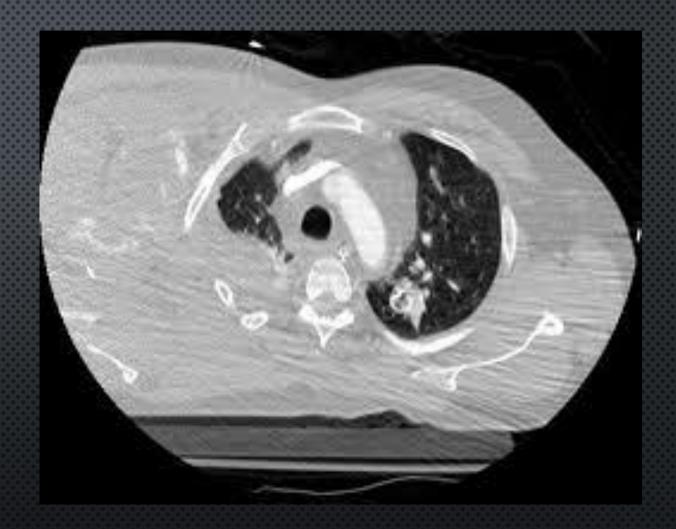
RADIOGRAPHIC DIAGNOSIS

- AP CHEST
 - SC DISLOCATION
- AP/LAT SHOULDER
 - CLAVICLE FRACTURE
 - AC SEPARATION
- CT SCAN
 - ASYMMETRIC DISTANCE FROM SPINOUS PROCESS TO MEDIAL EDGE SCAPULA BODY
 - CT ANGIOGRAM



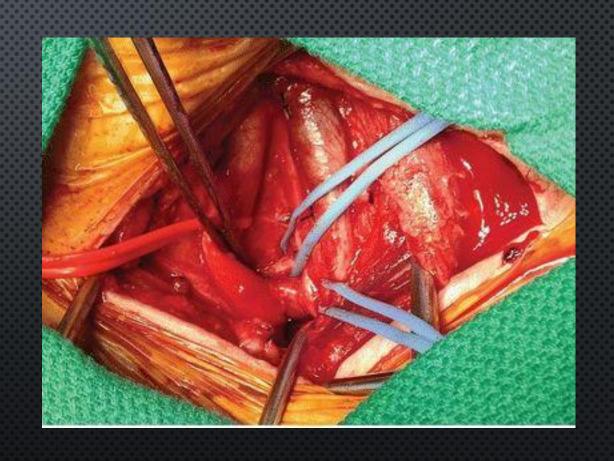






INITIAL TREATMENT

- HEMODYNAMIC STATUS DETERMINES TREATMENT
- IF STABLE AND NO SIGNIFICANT VASCULAR INJURY
 - SUPPORTIVE CARE
- IF SUBCLAVIAN INJURY
 - MEDIAN STERNOTOMY
- IF AXILLARY INJURY
 - High Thoracotomy



ORTHOPEDIC TREATMENT

- POSTERIOR FIXATION HAS NOT PROVEN TO BE BENEFICIAL
- ORIF CLAVICLE
- ORIF SC JOINT
- ORIF AC JOINT
- CC FIXATION
- TRANSFER PATIENT TO BRACHIAL PLEXUS CENTER OF EXCELLENCE WHEN STABLE
- FOREQUARTER AMPUTATION
 - IF COMPLETE BRACHIAL PLEXUS INJURY
 - NO ACCESS TO CENTER FOR NERVE RECONSTRUCTION/REPAIR





CONCLUSION

- RARE BUT DEVASTATING INJURY YOU DON'T WANT TO MISS
- DIAGNOSE AND TREAT VASCULAR INJURY ASAP
- TREAT FRACTURES AND DISLOCATIONS WITH STANDARD FIXATION
- GET PATIENT TO BRACHIAL PLEXUS CENTER OF EXCELLENCE WHEN STABLE
- Initiate counseling early as a significant number of patients require amputation.