**TRAUMATOLOGY I.**

**FRACTURES OF SCAPULA.**

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**FRACTURES OF THE SCAPULA:**

 **Mechanism of injury.**

**> A Crushing force, may also fracture ribs and dislocate sterno-clavicular joint.**

**>A Blow or a fall on the shoulders.**

**CLINICAL FEATURES.**

**>The arm is held immobile.**

**>Pain**

**>Severe bruising over the scapula or chest wall.**

**>Associated with injuries of the chest, brachial plexus, spine, abdomen and head.**

**NOTE.**

**Careful neurological and vascular examinations are essential.**

**Investigations.**

**History and clinical examination.**

**Request for x-ray or CT SCAN. Shows the fracture sites of the scapula.**

**CLASSIFICATION.**

**Fractures are divided anatomically into:**

* **Scapula body**
* **Glenoid neck**
* **Glenoid fossa**
* **Acromion**

**Scapular neck fractures are the most common. Further classification of fracture Glenoid neck by GOSS.**

**TYPE I------Fracture of the glenoid rim.**

**TYPE II------Fractures through the glenoid fossa, inferior fragment displaced with subluxed humeral head.**

**TYPE III--------Oblique fracture through Glenoid exiting superiorly (may be associated with acromio-clavicular dislocation or fracture).**

**TYPE IV-------Horizontal fracture exiting through the medial border of scapula.**

**TYPE V---------Combination of type IV and a fracture separating the inferior half of the glenoid.**

**TYPE VI-------Severe comminution of the Glenoid surface.**

**FRACTURES OF ACROMION PROCESS.**

**TYPE I--------Minimally displaced.**

**TYPE II-------Displaced but not reducing sub-cromial space.**

**TYPE III------Inferior displacement and reduced sub-cromial space.**

**FRACTURES OF CORACOID PROCESS.**

**TYPEI--------Proximal to attachment of the coraco-clavicular ligaments and usually associated with acromio-clavicular separation.**

**TYPE II------Distal to the coraco-acromial ligaments.**

**TREATMENT.**

**A sling for comfort, Active exercises to the shoulder, Elbow and fingers.**

**Analgesics**

**Fractures with marked displacement of more than 5mm require surgery and internal fixation.**

**SCAPULOTHORACIC DISLOCATION.**

**This is a high energy injury. The scapula and arm are wrenched away from the chest, rapturing the subclavian vessels and brachial plexus. Many patients die.**

**CLINICAL FEATURES.**

* **The limb is flail and ischaemic.**
* **Chest x-ray confirms the diagnosis.**
* **Swelling above the clavicle**
* **Haematoma formation.**

**TREATMENT.**

**Resuscitation>ABCDE**

**Exploration (Vascular reconstruction or brachial plexus}.**

**Poor prognosis.**

**ACROMIO-CLAVICULAR JOINT INJURIES.**

 **Occurrence.**

 **> Very common.**

 **>Direct Trauma.**

 **>Chronic sprains in people engaged in athletic activities, weightlifting and heavy vibrating rods.**

**Mechanism of Injury.**

 **A fall on the shoulder joint.**

**PATHOLOGICAL ANATOMY AND CLASSIFICATION.**

**TYPE I-------Sprain of the acromio clavicular ligaments.**

**TYPE II-------Torn acromioclavicular ligaments**

**TYPE III-------Torn acromioclavicular and coraco-clavicular ligaments with joint dislocation.**

**TYPE IV-------Posterior displacement of clavicle.>Rare.**

**TYPE V--------Inferior displacement of clavicle.>Rare.**

**INVESTIGATION.**

**History.**

**Clinical assessment**

**X-ray or CT SCAN.**

**TREATMENT.**

* **Rest with arm-sling**
* **Analgesics**
* **Exercises of the shoulder joint.**
* **Severe injury may require operation.**

**COMPLICATIONS.**

* **Rotator cuff syndrome >acute strain acromioclavicular joint and supraspinatus tendonitis.**
* **Un-reduced dislocation.**
* **Ossification of the ligaments**
* **Secondary osteoarthritis.**

**STERNOCLAVICULAR DISLOCATIONS.**

 **Mechanism of injury.**

**Rare>RTA and Underground rock fall.**

**CLINICAL TEATURES.**

**>Pain**

**>Bump over the sternoclavicular joint.**

**>Pressure on the trachea or large vessels impairing circulation.**

**Diagnosis.**

**History**

**Clinical examination**

**X-RAY Oblique views.**

**CT SCAN is ideal.**

**TREATMENT.**

**Reduction under General Anaesthesia(GA)**

**Figure of 8 for 3 weeks**

**Analgesics**

**Operational reduction in severe injuries.**