TIBIAL PLATEAU FRACTURES BY EVANS NYAKUNDI LECTURER KMTC KISII CAMPUS.

**MECHANISM OF INJURY.**

 **This is sometimes the result of a car striking a pedestrian (bumper fracture) more often it is due to a fall from a height in which the knee is forced into valgus or Varus. The tibia condyle is crushed or split by the opposing femoral condyle which remains intact.**

**PATHOLOGICAL ANATOMY.**

 **The fracture pattern and degree of displacement depend on the type of direction of force as well as the quality of the bone at the upper end of tibia.**

**SCHARTZKER CLASSIFICATION AS.**

**Type I**

 **A vertical split of the lateral condyle.**

 **Fracture through dense bone.**

 **Undisplaced.**

**Type II.**

 **A vertical split of the lateral condyle combined with depression of an adjacent load bearing part of the condyle.**

**Type III.**

 **Depression of the articular surface with an intact condyle rim.**

**Type IV**

 **Fracture of the medial tibia condyle.**

**Type V**

 **Fracture of both condyles**

**Type VI**

 **Combined condylar and sub condylar fractures.**

**CLINICAL FEATURES.**

**1.The knee is swollen**

**2.Deformity**

**3.Bruises**

**4.Pain**

**NOTE.**

**The leg and foot should be carefully examined for signs of vascular or Neurogical injury.**

**DIAGNOSIS.**

**Lateral and oblique x-rays**

**CT SCAN.**

**TRAETMENT.**

1. **Traction.**
2. **Open reduction depending on the severity of fracture.**

**TYPE I#S**

* **Conservative treatment for 3 weeks**
* **Aspirate Haemarthrosis**
* **Compression bandage is applied.**
* **Fixation>lag screws/buttress plate.**

**TYPE 2**

* **Aspiration of Haemarthrosis**
* **Skeletal Traction 3-4weeks**
* **Open reduction and internal fixation.**

**TYPE 3**

 **As in type 2.**

**TYPE 4**

 **As in type 2**

**TYPE 5 and 6**

* **Dangers of a compartment syndrome**
* **As in type 2**
* **Internal fixation or external fixator.**

**PRINCIPLES IN REDUCTION AND FIXATION.**

 **Traction is used to achieve reduction many of the fragments that have soft tissue attachments will reduce spontaneously(Ligamentotaxis).**

**If open reduction is needed or intended, the operation should be carefully planned.**

**Stability is all important, no matter which method is used, fixation must be secure enough to permit early joint movement. There is little point in ending up with a pleasing x-ray and a stiff knee.**

**COMPLICATIONS.**

 **Early.**

**Compartment syndrome.**

**Late.**

**1.Joint stiffness**

**2.Deformity**

**3.Osteoarthritis.**