

Knee Injuries

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Definition

Incidence

Age

Trauma

Clinical Picture

Associated Injuries

Complications

Bone

Nerve

Muscle

Deformity

Treatment

Medial Collateral Ligament Injury

Forced Abduction of the Knee

Ligament Injuries; sprain or Tear

Sprain:

Pain and Tenderness over the ligament

Abduction Stress (Valgus Stress Test) ->

Pain over Medial joint Line

Medial Collateral Ligament Injury

Tear:

Haemarthrosis

Abduction "Valgus" Stress test: Pain and
"Opening" of joint line.

Lateral Collateral Ligament Injury

Forced Adduction of Knee

Sprain:

Pain and Tenderness over Lateral Ligament

Adduction "Varus" stress Test Pain over
Lateral joint Line

Lateral Collateral Ligament Injury

Tear: Haemarthrosis

Adduction "Varus" Stress Test Opening of joint line



Collateral Ligament Injuries

Treatment:

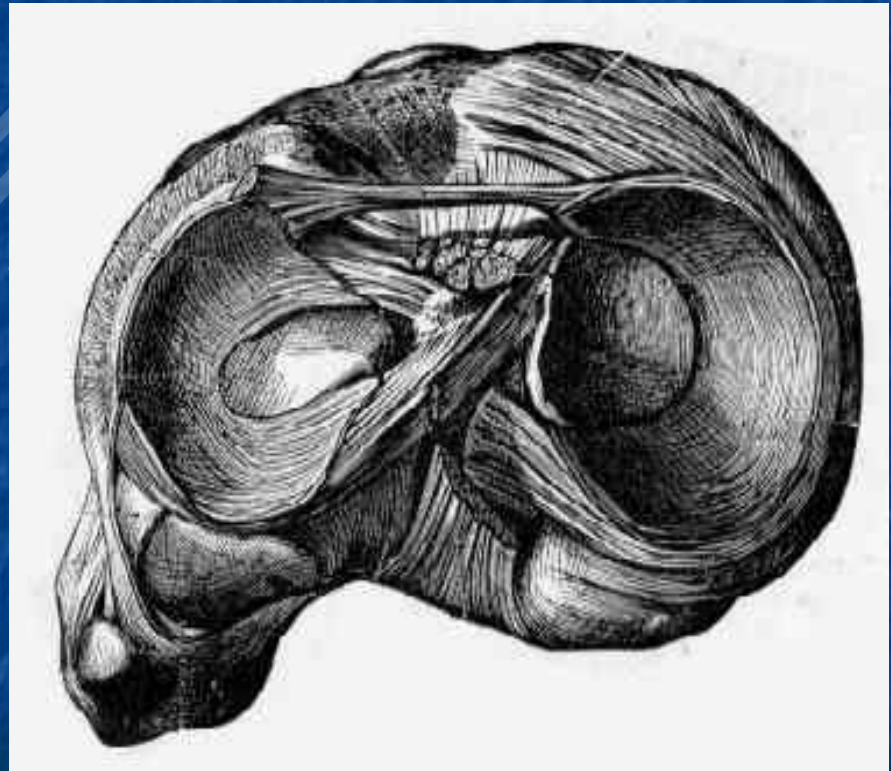
Sprain: Immobilization for 3wks, +
Physiotherapy

Tear: Immobilization 4-6wks

Surgical Repair: MCL : Especially if high
performance athletes.

Meniscal Injuries

Fibrocartilage
Crescentic in shape
Stress Dissipation
Shock absorber



Meniscal Injuries

Trauma: Rotatory "Twisting" Injury with knee semi flexed, crushing menisci between femur and tibia

Football players

Different types of tears

Meniscal Injuries



MRI

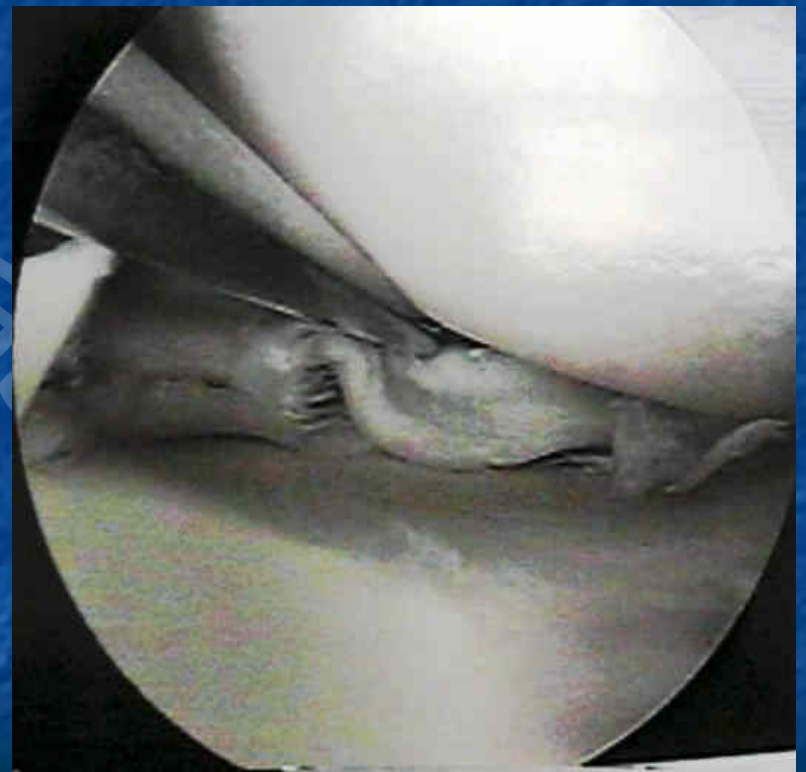


Arthroscopic

Meniscal Injuries

- Pain and Tenderness over respective joint line
- Haemarthrosis, or effusion
- Locking of knee, interposition of torn part of meniscus in between femur and tibia, especially if Bucket handle tear

Meniscal Injuries



Meniscal Injuries

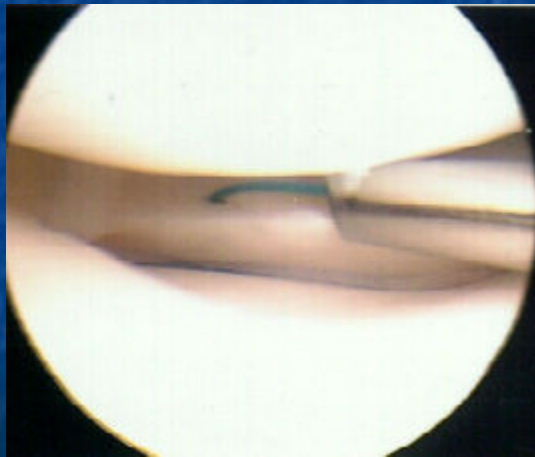
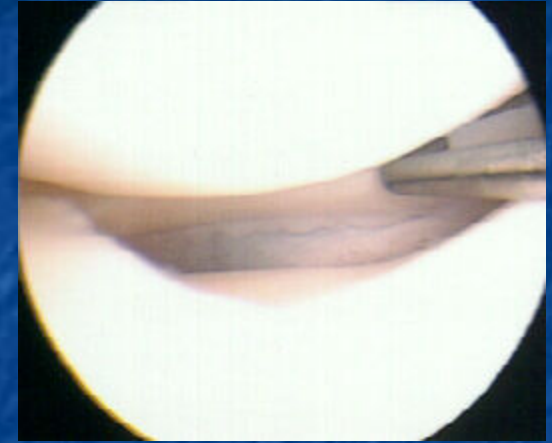
Clinical examination:

- Muscle "quadriceps" wasting
- Pain, or click over respective joint line on performing diagnostic McMurray's Test

Taking involved knee from extension to flexion with medial or lateral rotation

Meniscal Injuries

Treatment: Partial Meniscectomy
Meniscal Repair



Cruciate Ligament Injuries

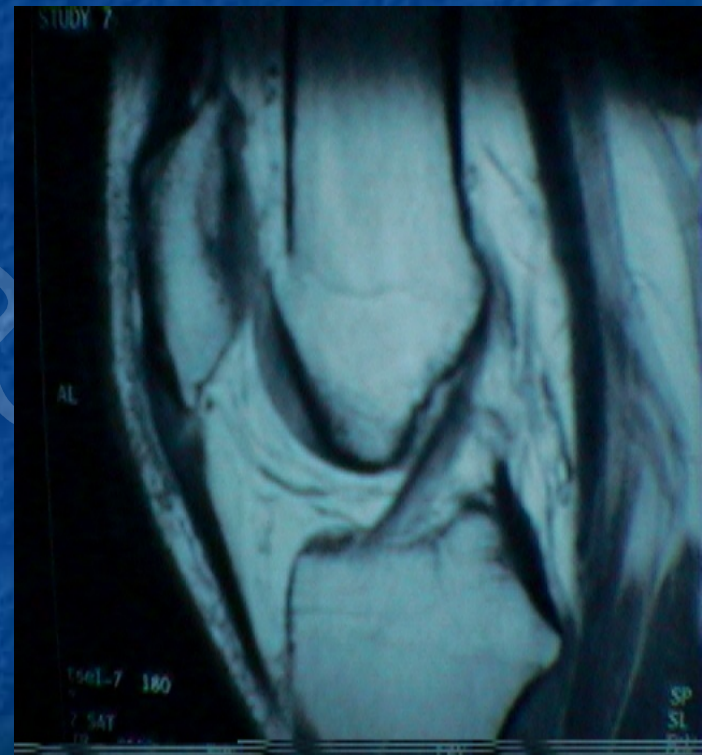
Intraarticular Extrasynovial

Avascular

Primary restraints to Anterior or Posterior
Tibial Subluxation



Cruciate Ligament Injuries



Anterior Cruciate Ligament Injury

From Medial Surface of Lateral Femoral
Condyle to tibial Plateau

Primary restraint against excess anterior
tibial translation

Anterior Cruciate Ligament Injury

Trauma: Hyperextension of Knee joint

Abduction and internal rotation of
semi flexed knee

Football Players

Anterior Cruciate Ligament Injury

Pain and Haemarthrosis

Instability

Examination: Anterior Drawer test positive

Lachman test

Anterior Cruciate Ligament Injury



Anterior Cruciate Ligament Injury



Anterior Cruciate Ligament Injury

Treatment: Reconstruction

Open

Arthroscopic



Anterior Cruciate Ligament Injury

Grafts: BPTB

ST &G

Quadriceps

Synthetic



Posterior Cruciate Ligament Injury

Medial Femoral Condyle to upper and posterior part of tibia

Primary restraint against posterior subluxation of tibia

Posterior Cruciate Ligament Injury

Trauma: Dashboard injury

Pain, Haemarthrosis

Posterior drawer test positive

Usually avulsed with a piece of bone
(insertion)

Less common injury

Thank You

