Knee Injuries: Pearls and Pitfalls

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Conflict of Interest Disclosure

I, Leslie Kim, MD hereby declare that the content for this activity, including any presentation of therapeutic options, is well balanced, unbiased, and to the extent possible, evidence-based.

My partner/spouse and I have no financial relationships with commercial entities producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients relevant to the content I am planning, developing, presenting, or evaluating.
References/Links

- OrthoBullets
- Vumedi
- 3D4Medical
- ACOEM
- www…

http://www.dir.ca.gov/dwc/DWCPropRegs/Medical-Treatment-Utilization-Schedule/Medical-Treatment-Utilization-Schedule.htm
Knee Anatomy

HISTORY

• Mechanism of injury – accurate? Useful?
• Symptoms – pain plus? pattern? red flags?
• PMH – industrial? complete?
• ROS/Social History – risk factors? opioid screening?
• Job Description – satisfaction?
COMPLETE “KNEE” EXAMINATION

• Inspection – skin, swelling, atrophy, symmetry, gait, standing alignment
• Palpation – tenderness, warmth, patellar ballotment
• ROM – active, passive, crepitus
• Stability – distraction/relaxation
• Special Tests – differential diagnosis

Repeatable Process
https://www.vumedi.com/video/knee-exam/

• Stand-walk
• Sit
• Supine
Palpation

Figure 5.3: Medial view; flexed right knee (model)

Figure 5.4: Lateral view; flexed right knee

Ballotment

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DIAGNOSTIC STUDIES

• Xrays – weight bearing?
• MRI, CT – ACOEM?
• Laboratory Tests – atraumatic?
• Vascular ultrasound, pressures – red flags?

Rosenberg weight bearing view
**DIAGNOSES**

1. “Potentially serious conditions”
2. “Mechanical disorders”
3. “Degenerative disorders”
4. “Nonspecific disorder”

**SPECIFIC CONDITIONS**

- ACL-PCL tears
- MCL-LCL tears
- Meniscus tears
- Patello-femoral disorders
- Bursitis-tendinitis
- Arthritis, synovitis, IDK
**ACL-PCL tears**
Acute hemarthrosis 🍎
Lachman/Drawer signs – relaxation-distraction ⚠️

**MCL-LCL Tears**
Grading – I-III, conservative 🍎
Meniscus Tears
Delayed effusion, Grade III only, conservative

Patello-femoral Disorders
alta-baja
Arthritis, synovitis, IDK inflammatory, mechanical

TREATMENT (ACOEM, MTUS)
- Rest (mechanical) – bracing, protected weight bearing, ergonomics
- Medications (pharmacologic) – oral, topical, injection
- Therapy (activity, modalities) – strengthening, ROM, functional restoration
- *Additional testing, referral
QUESTIONS?

Bonus Book Review?