EVALUATION OF ACUTE KNEE PAIN

Objectives

1. To be able to elicit a complete history from patients presenting with acute knee pain.
2. To be comfortable performing a physical exam in the setting of acute knee pain, including maneuvers to assess ligament or meniscal injury.
3. To understand the appropriate role of imaging in the setting of acute knee pain.
4. To direct the initial management of patients with acute knee pain, including which patients to refer to Orthopedics.

Case 1

A 75 year-old woman with a history of hypertension and osteoarthritis presents to the general medicine clinic for an acute visit for right knee pain. She states that two days ago, she fell in her kitchen and landed on her right knee. She now continues to have pain despite rest and acetaminophen.

1. Are there any further questions you would ask this patient?

2. What is your initial differential diagnosis for this type of injury?

3. How do you decide if you should order x-rays? What are the Ottawa knee rules?
4. In the primary care setting, if a patient meets one of the criterion of the Ottawa knee rules, what is the likelihood of fracture?

Case 2

A 25 year-old male presents to clinic with knee pain after playing a pick up soccer game the evening before. He describes that he was dribbling the ball when a player tackled him from behind, knocked him to the ground and landed on his lower right leg. He felt immediate pain in the leg, and thought he heard a pop. The knee began swelling almost immediately, and he was unable to continue playing. The pain did ease with ibuprofen and ice, but it remains swollen today.

1. Based on this history, what type of injury would be of most concern to you and why?

2. What physical exam maneuvers would help you best assess this injury? What is the sensitivity and specificity of each? Demonstrate these maneuvers on one of your fellow residents.

3. Given a 4% pretest probability for this injury (the prevalence of this injury in a primary care clinic), what is the likelihood of its presence given a positive physical exam? A negative physical exam?

4. What would be the likelihood if an MRI were positive? Negative?
Case 3

A 62 year-old male with a history of coronary artery disease, hypertension, type 2 diabetes and obesity presents with a one week history of left knee pain. He tells you that one week ago while bowling, his left leg twisted as he planted it. He noted pain in the knee, but was able to complete his game. Over the course of the week, he has continued to have pain along the medial border of his left knee. He has had mild swelling since the day after the injury, and has at times noted a clicking sensation in the knee.

1. Based on this history, what type of injury would be of most concern to you and why?

2. What physical exam maneuvers would help you best assess this injury? What is the sensitivity and specificity of each? Demonstrate these maneuvers on one of your fellow residents.

3. If your exam confirms your initial suspicion, how would you manage this patient initially?
BIBLIOGRAPHY


