Swelling From Down Under...The Patella

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History: A 60 yo male with history of left knee osteoarthritis and without history of immunocompromised state presented with severe left knee pain and swelling. He denied any trauma or injury to the knee. He did endorse cleaning on his hands and knees 1 week prior, but didn’t note any pain or injury at that time. He denied any locking, popping or instability of the knee. He endorsed decreased range of motion as a result of the swelling. 

Physical exam: He was in no acute distress. He walked into clinic with left antalgic gait, greatly favoring his left side. Inspection showed swelling of the anterior knee. Palpation revealed a very firm area over the anterolateral aspect of knee adjacent to the patellar ligament. This area was tender to palpation. There was no joint line tenderness. Range of motion of the left knee lacked about 5 degrees from full extension and was only able to achieve 90 degrees of flexion. 5/5 strength with knee flexion and extension with slight pain on extension. Knee extensor mechanism was intact. He was ligamentous intact. Ballottement test was negative and he was neurovascularly intact.

Differential Diagnosis: 1. Infrapatellar bursitis 2. Septic arthritis 3. flair of osteoarthritis

Tests and Results: Point of care musculoskeletal ultrasound of the left knee revealed an effusion at the infrapatellar bursa, which was clearly noted to be superficial to the fat pad and lateral to the patellar tendon. Ultrasound guided aspiration of the bursa fluid was sent for analysis and returned with Neutrophil count of 2, RBC of 1000-10000 and was negative for crystals.

Final Working Diagnosis: Non-traumatic, spontaneous infrapatellar bursitis.

Treatment and Outcomes: The bursa was aspirated in its entirety. 26cc of clear, straw colored synovial fluid was removed. Synovial fluid testing was negative for infection or gout. Patient had complete resolution of pain and regained full range of motion following the aspiration. At the conclusion of the visit he was able to comfortably walk out of the office without assistance. A compression wrap was placed on the knee and he was encouraged to wear it for 5-7 days following this aspiration to prevent reaccumulation of fluid. He has experienced some recurrence despite compliance with compression, however, he is currently comfortable enough to avoid repeat aspiration or further imaging.