Ruptured Baker’s Cyst in Rheumatoid Arthritis

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An 80-year-old woman presented with a 1-week history of sudden-onset pain in the left calf. She had been experiencing bilateral knee pain for five months. On an examination, her left calf was tensely swollen and edematous (Picture 1). The skin on the medial side of the left calf appeared slightly reddish. Her C-reactive protein level was 4.3 g/dL, and her matrix metalloproteinase-3 level was 1,646 ng/mL (normal level, <59.7 ng/mL), while rheumatoid factor and anti-citrullinated peptide antibody tests showed negative results. An ultrasound examination of the knees revealed fluid with synovial proliferation, along with bilateral popliteal cysts. The fluid from the left popliteal cyst continued into the calf musculature. Contrast-enhanced computed tomography also revealed extensive fluid collection under the left gastrocnemius muscle (Picture 2). Although asymptomatic, ultrasound imaging of the metacarpophalangeal joints revealed mild synovial proliferation. Therefore, the patient was diagnosed with possible seronegative rheumatoid arthritis.

Ultrasonography can easily differentiate a ruptured Baker’s cyst from deep vein thrombosis, thrombophlebitis, or cellulitis.

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