

中文題目：一個臨床的陷阱：破裂的貝克氏囊腫

英文題目：A Clinical Pitfall: ruptured popliteal cyst mimicking necrotizing fasciitis

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Method: A 78 year old woman presented with sudden onset of pain, erythema, and swelling of the right calf for one week. In the beginning, she had sudden onset painful right knee after electrical muscle stimulation in rehabilitation clinic. Then she received traditional herb topical therapy due to progressive swelling extended from knee to ankle. Laboratory exam revealed normal white blood cell count ($6.77 \times 10^3/\text{ul}$), elevated C-reactive protein (CRP 6.23 mg/dl) and erythrocyte sediment rate (72 mm/hr). Right leg subcutaneous fluid was aspirated in emergency department which turbid red color, and numerous white blood cells, and red blood cells per high power field. White blood cell count was 17600/ul with polymorphonuclear neutrophils predominant. Computed tomography with contrast revealed swelling and subcutaneous edema of right foot, lower leg and knee. There is one loculated fluid with rim-enhancement of myofascia of posterior tibial compartment. She was initially managed as suspicious necrotizing fasciitis, and received fasciotomy and drainage.

She came to outpatient department due to recurrent right knee and calf pain two weeks after surgery. Ultrasound confirmed a ruptured Baker's cyst and excluded deep vein thrombosis (DVT). She was treated with ultrasound guided aspiration and steroid injection.

Baker's cyst arises between the medial head of the gastrocnemius and the semimembranosus muscles. Fluid from the ruptured cyst drains into this plane and causes medial calf swelling. Patients may stand with the knee and ankle flexed to relax the gastrocnemius. The fluid causes inflammation of the surrounding tissue. Exclusion of DVT avoids unnecessary anticoagulation treatment, which can cause bleeding and posterior compartment syndrome in these patients.

Conclusion: Baker's cysts are caused by fluid distention of the gastrocnemio-semimembranosus bursa and result in a painful synovial-lined fluid sac outside the knee joint. The most common underlying conditions are osteoarthritis and Charcot joint. The differential diagnosis includes DVT, tumor, hematoma and cellulitis. Baker's cysts may be confirmed by ultrasound, CT and MRI. Incidental findings of an asymptomatic Baker's cyst do not require treatment and will resolve on their own. Painful cysts can be treated with intraarticular injections and needle aspiration.