A Baker's dozen

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DESCRIPTION

A 94-year-old woman with chronic left knee osteoarthritis was referred to the deep vein thrombosis (DVT) clinic with a 2-day history of non-traumatic left calf pain and swelling, with mild restriction in knee flexion. On examination, she had focal swelling extending from mid-calf to the back of her knee, without warmth or erythaema and required support with a frame. Serum D-dimer was elevated at 439 µg/L (<250), with normal inflammatory markers. Doppler ultrasonography of the limb excluded DVT but revealed an effusion in the left popliteal fossa in keeping with Baker's cyst, interestingly, with the presence of round hyperechoic lesions (figure 1). Knee radiographs confirmed osteoarthritis with 12 irregular radiolucent fragments posterior to the knee joint, coined Baker's dozen (figures 2 and 3). Appearances were in keeping with synovial osteochondromatosis (SOC), probably secondary to long-standing osteoarthritis. Following orthopaedic review, the patient was managed conservatively with analgaesia, leg elevation and physiotherapy and discharged with general practitioner (GP) follow-up.

SOC is a benign condition characterised by synovial hyperplasia and neoplasia into cartilage forming cells, resulting in cartilaginous nodules (chondromas), which typically calcify into osteochondromas.[1] This condition may be primary or secondary to a degenerative process, such as osteoarthritis. SOC is often monoarticular, affecting the knee, and may be a secondary cause of Baker's cyst.[2] Malignant transformation into synovial chondrosarcoma is rare. The diagnosis is confirmed radiologically. CT/MRI may delineate SOC from differentials including chondrosarcoma, synovial haemangioma and pigmented villonodular synovitis.[3] Management may be conservative, or involve arthroscopic or open resection of osteochondromas and synovectomy.

Figure 1 Ultrasound Doppler scan of the left popliteal fossa.

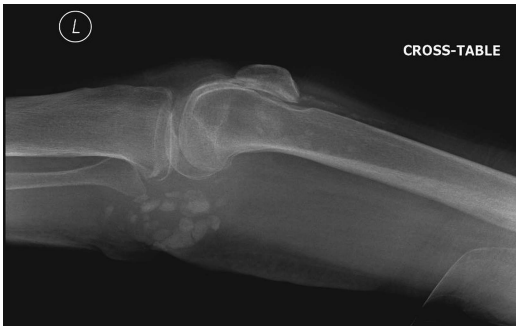

Figure 2 Lateral X-ray of the left knee.

Figure 3 Anteroposterior X-ray of the left knee.

Learning points

- Synovial osteochondromatosis (SOC) is a clinicoradiological diagnosis that should be considered when encountering intra-articular or periarticular nodules on routine imaging. In younger patients, CT/MRI should be considered to delineate it from differential diagnoses including osteosarcoma.
- In addition to trauma and arthropathy, Baker's cyst may also be secondary to SOC. Baker's cyst may rupture and mimic deep vein thrombosis.

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