View Box Case-11

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A 66 years old female presented with complaint of pain in right knee for 2 months. The laboratory findings were unremarkable. Plain radiograph of right knee showed normal bone density with reduction in joint space at femorotibial joint especially in medial compartment and patellofemoral compartment with slight varus angulation. There was marginal sclerosis and moderate degree of osteophyte formation at articular margins. A few rounded calcified loose bodies were also seen in the joint anteriorly as well as posteriorly with small amount of joint effusion (Figures 1 and 2).

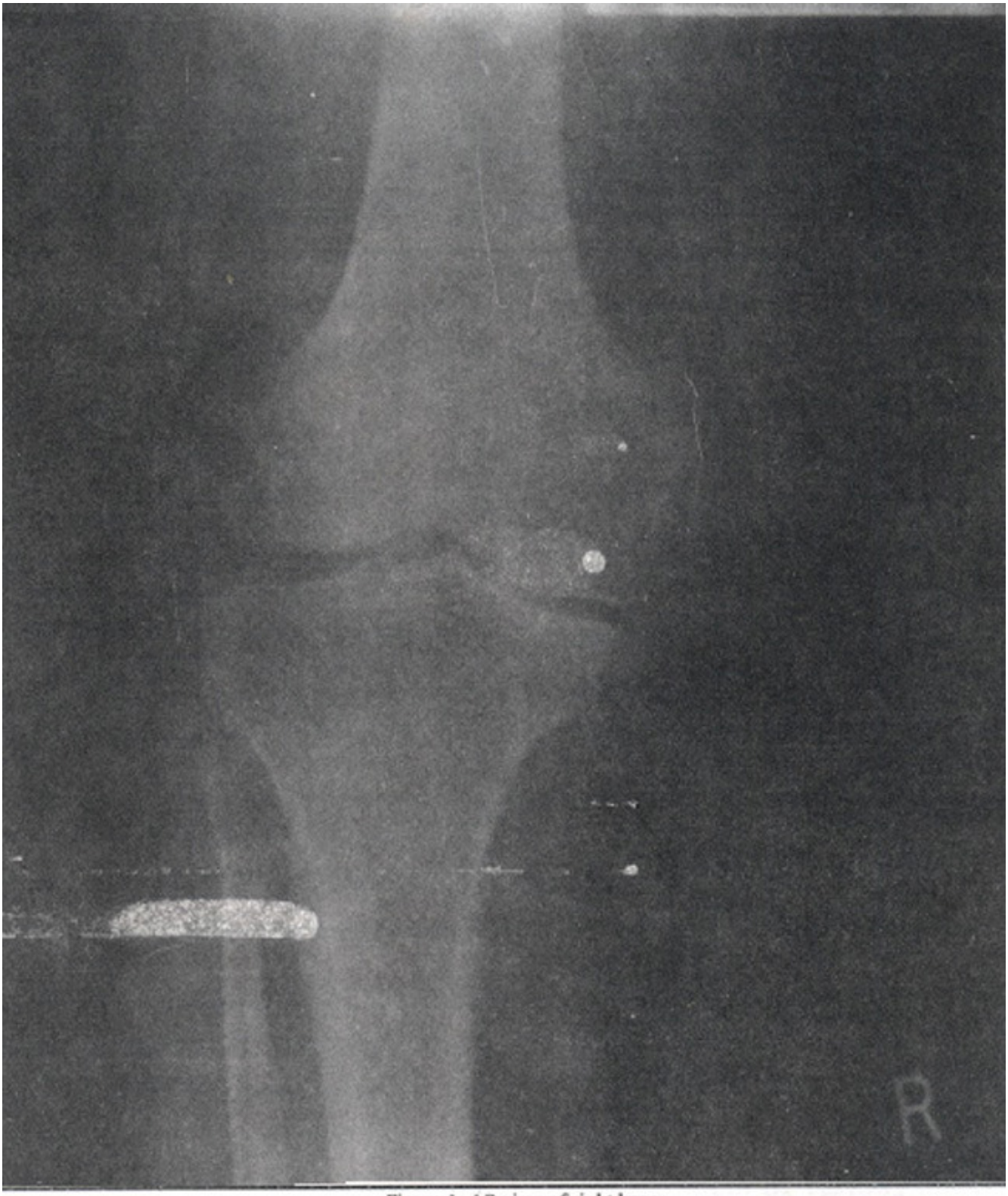

Figure 1. AP view of right knee.

Figure 2. Lateral view of right knee.

Diagnosis: Synovial osteochondromatosis with osteoarthrosis.

Discussion

Synovial osteochondromatosis is a relatively uncommon, indolent and chronic abnormality of the synovium[1,2]. It represents chondroid metaplasia of the synovium resulting in cartilaginous masses within a joint, bursa or tendon sheath. It is nearly always monoarticular. The knee is the site of predilection although other major joints may also be involved. It is twice as common in man as in woman and usually occurs in 3rd and 5th decade of life. Patients tend to present with a several year history of joint pain and limited range of movements.

On conventional radiographs typically there are multiple juxtaarticular rounded opacities of uniform size in and around the joint with synovial thickening and effusion[1,2]. In the late stages, there is erosion of adjacent bone with widening of the joint space and osteoarthritis. When multiple calcified nodules or loose bodies are present, their appearance on plain film is virtually diagnostic. On computed tomography a soft tissue mass of water density with multiple calcification is seen[3]. MRI appearance varies and depends upon the presence and extent of calcification and/or ossification4. CT and MRI are useful to document intra-articular location, cartilage or bone erosion, and capsular constriction or adhesive capsulitis.

On radiographs synovial osteochondromatosis could be confused with posttraumatic degeneration and calcified and ossified loose bodies[1]. These loose bodies tend to be larger and vary in size, in contrast to the uniform dimension of the opacities of synovial osteochondromatosis. In addition evidence of old fracture is often present. Differential diagnosis includes other pathologies causing periarticular soft tissue calcifications e.g. pigmented villonodular synovitis, synovial hemangioma, rheumatoid arthritis and tuberculosis[5].

References

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