

## Osteolysis of the Patella

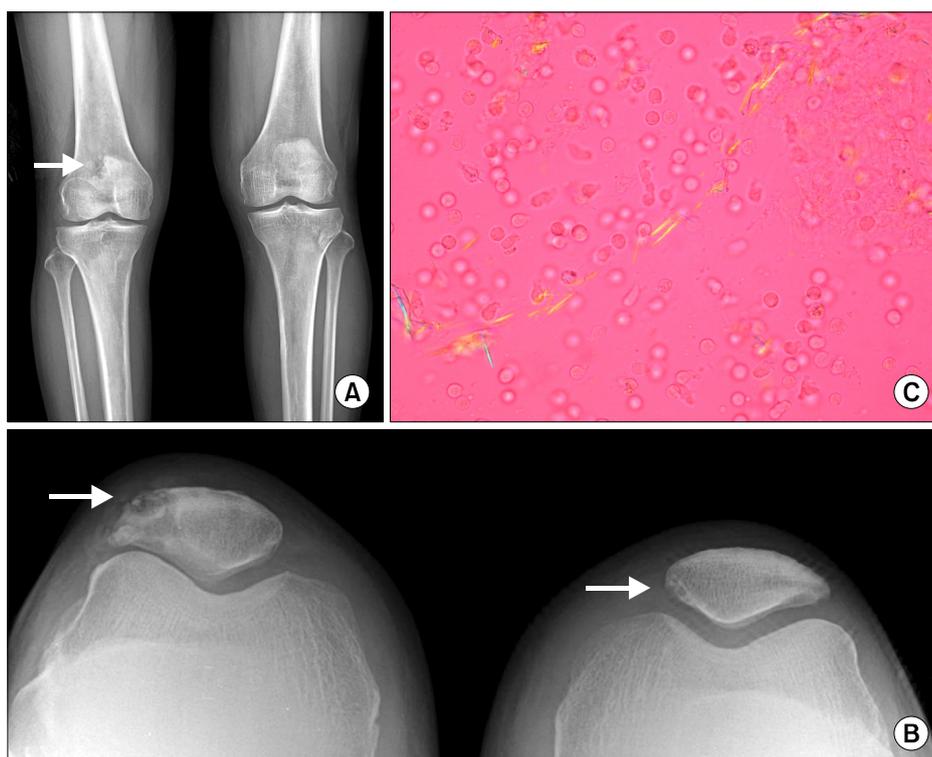
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### Case Report

A 56-year-old man presented with a 3-day history of pain and swelling of the right knee. He had a history of renal stone, chronic renal failure and liver cirrhosis. He did not have a history of trauma. The right knee showed marked swelling, local heating and tenderness. The serum creatinine level was 1.85 mg/dL (reference, 0.4~1.5 mg/dL) and uric acid level was 10.1 mg/dL (reference 3.0~8.3 mg/dL). Acute phase reactants showed elevations including erythrocyte sedimentation

rate of 28 mm/hr by the Westergren method, 7.16 mg/dL (reference, 0.0~0.3 mg/dL) of C-reactive protein. The creatinine clearance (22.6 mL/min, reference 75.0~125.0 mL/min) and the renal excretion of uric acid (490 mg/day, reference 250~750 mg/day) were decreased in 24-hour urine analysis. AP view of both knees showed an osteolytic lesion with bony defect and fragment on the superolateral portion of the right patella (arrow, Figure 1A). Skyline view showed a similar lesion on the lateral portion of the right patella and



**Figure 1.** (A) Radiographic images of the both knees. White arrow indicates an osteolytic lesion of the right patella. (B) Skyline view shows a similar lesion on the lateral portion of the right patella and a radiolucent lesion on the medial portion of the left patella. (C) Monosodium urate crystals were identified.

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a focal osteolytic lesion with cortical defect on the medial portion of the left patella (arrows, Figure 1B). Monosodium urate crystals were identified under polarized microscopic examination of the synovial fluid (Figure 1C). The patient was diagnosed with gout and was prescribed with an intra-articular corticosteroid injection. Two weeks later, acute symptoms subsided and the patient was started on allopurinol 100 mg. During the follow up period of 10 months, the patient did not display any recurrence of acute gouty attack.

### Discussion

Osteolytic lesion of patella is found in neoplasms and non-neoplastic conditions such as, infectious diseases (including tuberculosis), degenerative change, metabolic diseases (1,2). Isolated or dominant lesions of the patella are rare manifestation of gout (3). Because of its atypical characteristics, gout of the patella could be mistaken as infectious or malignant diseases (3,4). There were several gout case reports about osteolytic lesion of the patella in which invasive procedures like arthroscopy or surgical intervention were used. Bony erosions

with overhanging edges and osteolytic lesion of the superolateral portion are typical radiologic finding of gout (3). Even if in normo-uricemic patients or patients with no history of gout, we should first recommend aspiration of the synovial fluid and polarized microscopy examination before arthroscopy or open surgery, especially in the patients with renal insufficiency.

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