Pseudorheumatoid Arthritis Caused by Calcium Pyrophosphate Dihydrate Deposition

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An 80-year-old woman was referred to our department with recurrent episodes of symmetric polyarthritis, which were resistant to nonsteroidal anti-inflammatory drugs. Laboratory tests revealed a C-reactive protein (CRP) level of 0.82 mg/dL, and rheumatoid factor and antibodies against cyclic citrullinated peptides were negative. Radiography revealed chondrocalcinosis of the affected joints, including the metacarpophalangeal and wrist joints (Picture 1, arrows) and the metatarsophalangeal joints (Picture 2, arrows). According to these findings, the patient was diagnosed with pseudorheumatoid arthritis, a form of chronic inflammatory arthritis due to calcium pyrophosphate dihydrate (CPPD) crystal deposition disease (1). Low-dose colchicine (0.5 mg/day) completely eliminated her symptoms, and her CRP level decreased to 0.03 mg/dL.

Pseudorheumatoid arthritis occurs in 5% or fewer patients with symptomatic CPPD crystal deposition disease. Pseudorheumatoid arthritis due to CPPD crystal deposition disease should be included in the differential diagnosis if a patient demonstrates radiographic signs similar to those observed in our patient.

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Reference