Acute CPP Crystal Arthritis Presenting as Median Nerve Paralysis

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Picture 1.

Picture 2.

Picture 3.

Picture 4.
A 92-year-old man presented to our emergency department at night with swelling and pain in his left hand. Despite taking NSAIDs that morning, his pain worsened, and he had been unable to wear a wrist watch since the day before the presentation. A physical examination revealed edema in the whole left hand and joint, difficulty bending and stretching the fingers except for the thumb, and a tingling sensation (Picture 1). Positive Tinel sign and sensory disturbance in the second and third digits suggested median nerve irritation. Blood circulation disorder and trauma were absent. Radiographic findings indicated calcification (Picture 2), and a cyst was observed on computed tomography (Picture 3, 4). Echo-guided percutaneous puncture was performed to obtain fluid. Tests were positive for calcium pyrophosphate (CPP) dihydrate crystals, with a cell count of 70,837, leading to a diagnosis of acute CPP crystal arthritis. Fine-needle aspiration of the cyst resulted in some pain relief, and he was able to move his fingers slightly.

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References