

12. Rose Psaroudis¹, Olivier Giovanoli³, Dr. May Chergui⁴, Inés Colmegna²

¹Department of Medicine, McGill University, Montreal, QC, ²Division of Rheumatology, Department of Medicine, McGill University, Montreal, QC; ³Department of Diagnostic Radiology, McGill University, Montreal, QC; ⁴Department of Pathology, McGill University, Montreal, QC.

Pseudotumoral Gout of the Hand: A Diagnostic Challenge.

Atypical presentations of gout can pose significant diagnostic challenges. Among these, pseudotumoral (tophaceous) gout is characterized by large, space-occupying masses that may clinically and radiographically mimic neoplasms or infectious processes, often leading to delayed or incorrect diagnosis.

Case Presentation

A 46-year-old man with Crohn's disease treated with 5-aminosalicylic acid, obesity, and a remote left fourth digit tendon injury reported progressive, painless enlargement of the left fourth digit over 8 months. One month prior to rheumatology evaluation, he developed acute pain and swelling of the same digit after minor trauma. Emergency department radiographs showed palmar soft tissue enlargement without fracture. Due to severe symptoms, percutaneous lavage was performed, yielding "cottage cheese-like" material sent for culture. With a presumed diagnosis of soft tissue infection, he was treated with amoxicillin-clavulanate (7 days) and prednisone (50mg D/E x 3) despite which local pain and swelling progressed.

Two weeks later, rheumatologic assessment revealed a 2.5-cm indurated, erythematous mass extending from the fourth metacarpophalangeal crease to the distal phalangeal crease, with tenderness and fixed flexion of the proximal interphalangeal joint. The patient denied prior podagra or nephrolithiasis. C-reactive protein was 12.3 mg/L (reference ≤ 10 mg/L), and serum uric acid was 423 $\mu\text{mol/L}$ (reference ≤ 400 $\mu\text{mol/L}$). Differential diagnoses included atypical infection and soft tissue neoplasm. MRI demonstrated a 17 × 14 × 32 mm aggressive soft tissue lesion centered at the palmar aspect of the fourth proximal interphalangeal joint with underlying bone erosion. Radiologic differential favored tenosynovial giant cell tumor (TGCT), followed by infection and sarcoma.

Excisional biopsy was performed. Bacterial, fungal, and mycobacterial cultures were negative. Histopathology revealed palisading granulomatous inflammation with negatively birefringent needle-shaped monosodium urate crystals, consistent with tophaceous gout, without evidence of malignancy. Allopurinol and colchicine were initiated and titrated to a target serum urate of 0.30 mmol/L.

Discussion

Initial presentation of gout as a pseudo tumoral hand mass is rare. Large tophi with bone erosion may closely mimic soft tissue sarcoma, TGCT, primary bone tumors, or metastatic disease. Given that MRI findings are not histopathologically confirmed in up to 29% of suspected TGCT cases, tissue diagnosis remains essential when evaluating aggressive-appearing soft tissue lesions.