CASE REPORT

Chronic tophaceous gout

R. Angalla, A. Mounir, S. Driouich, F.Z. Abourazzak and T. Harzy

From the Department of Rheumatology, University Hospital Hassan II Fez -Morocco, Faculty of Medicine and Pharmacy Fes, Sidi Mohamed Ben Abdellah University in Fez, Fez, Morocco

Address correspondence to Angalla Romaric, Department of Rheumatology, University Hospital Hassan II Fez - Morocco, Faculty of Medicine and Pharmacy Fes, Sidi Mohamed Ben Abdellah University in Fez, Fez, Morocco. email: romaricangala@gmail.com

Learning point for clinicians

Gout is a metabolic disease that can manifest as acute or chronic arthritis, and deposition of monosodium urate crystals in joint, bones and different body tissues, including the skin and soft tissues. Rarely, it can present with tophi as an initial manifestation. Chronic tophaceous gout frequently occurs after 10 years.

Case history

A 67-year-old man with an 8-year history of non-treated gout was admitted for generalized articular pain. Our patient had only taken traditional medicines for joint pains and did not resort to specific therapy for gout. He was noted to have multiple hard swellings. The swelling developed over 4 years, progressively increasing in size. There was no family history of gout, but personal history of alcohol use, and high purine diet intake. Physical examination revealed that there were multiple large firm tophi over bilateral hands (Figure 1a) and feet (Figure 1b). Some of which ulcerated and discharged white chalky material. He had an average build with BMI of 30.4 and hypertension fortuitously discovered. Laboratory workup revealed elevated serum uric acid (96 mg/l, normal: 20–74 mg/l), with normal renal function test: blood urea 0.4 mg/l (normal: 0.1–0.5 mg/l) and serum creatinine 10 mg/l (normal: 5–18 mg/l). Radiographs of both hands showed soft-tissue swelling and periarticular erosions in interphalangeal joints. Radiographs of the foot showed soft tissue swelling and total destruction of the first metatarsophalangeal joint. Abdominal ultrasonography revealed bilateral caliceal calculi. The patient was treated with Allopurinol (100 mg/d) associated to Colchicine (1 mg/d). After 3 d, he experienced relief of the joints pain. Then he was referred to urology care of his kidney stones.

Discussion

Gout is a disorder of purine metabolism and results from long-standing hyperuricaemia and urate crystal deposition in various tissues. In the first stage, it usually affects the first metatarsophalangeal joint of the foot and less commonly other joints. The next most frequent localizations are the midtarsi, ankles, knees and arms. Older age, male sex, postmenopausal state and black race are related to a higher risk for development of the disease. Also, the use of certain medications may trigger gout (diuretics, cyclosporine, low doses of aspirin, etc.). In untreated patients, chronic tophaceous gout may develop, which is characterized by chronic destructive polyarticular involvement and tophi. Chronic tophaceous gout frequently occurs after 10 years or more of recurrent polyarticular gout. Tophi can occur in soft tissue, osseous tissues, ligaments and different organs and either in presence or in absence of gouty arthritis. Tophi are typically found on the helix of the ears, on fingers, toes, wrists and knees, on the olecranon bursae, on the Achilles tendons and also rarely on the sclerae, subconjectivally and on the cardiac valves. The prevalence of gout is much higher in men than in women and rises with age. Although the prevalence of tophaceous gout, principally the generalized form of it, has decreased in the past years, the disease still exists likely due to the absence of an accurate diagnosis and therapy. If left untreated, hyperuricemic patients (serum urate level ≥ 6.8 mg/dl or 400 μmol/l) can evolve from intermittent arthritis to polyarticular tophaceous gout with symptoms between attacks. Lowering serum urate levels with xanthine oxidase inhibitors or uricosuric agents prevents acute flares and tophi development. The recommended target serum uric acid
concentration is <6 mg/dl (357 μmol/l). Although controversial, recommendations have been made to achieve a target serum urate level <5 mg/dl (297 μmmol/l) in severe chronic gout patients, as this concentration may be associated with greater depletion of synovial fluid crystals and a reduction in tophus size.5

Conflict of interest: None declared.

References