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CASE REPORT
ΕΝΔΙΑΦΕΡΟΥΣΑ ΠΕΡΙΠΤΩΣΗ

Giant tophus in the course of gout, with a good response to infliximab

A 76-year-old woman was referred for investigation of a large tumor on the left elbow that had first appeared more than 10 years earlier, with small firm yellow nodules on proximal and distal interphalangeal joints, which proved to be a manifestation of classic gout. Infliximab treatment resulted in marked clinical improvement.

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ΑΡΧΕΙΑ ΕΛΛΗΝΙΚΗΣ ΙΑΤΡΙΚΗΣ 2014, 31(2):218–220

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Τεράστιος τόφος σε ουρική αρθρίτιδα με καλή απόκριση στην ινφλιξιμάμπη

Περίληψη στο τέλος του άρθρου

Key words

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Gout is a metabolic disease caused by a disturbance in purine metabolism; crystals of monosodium urate are deposited in various tissues such as the joints, kidneys, and soft tissues, producing an inflammatory response.[1] Tophus (plural tophi) is a Latin word meaning stone and is the name given to deposits of monosodium urate crystals in people with longstanding high levels of uric acid in the blood. Tophi are most commonly seen in conjunction with the disease of gout, and most people with discernable tophi will have developed symptoms of gout. Tophi are most commonly found as hard nodules around the fingers, the tips of the elbows and the proximal joint of the big toe, but can affect any other part of the body.[2,3]

CASE REPORT

A 76-year-old woman with a past history of arterial hypertension, dyslipidemia and joint pain, affecting mainly the hands and knees, who was not receiving regular medication or medical attention, presented with a huge tumor localized on the left elbow (fig. 1).

The tumor had appeared 10 years earlier, with a slow growth rate over the years, no pain, and no dysfunction of the left arm. The tumor was very well demarcated, covered by normal skin and firm with slight tenderness on palpation.

She also displayed small painful soft whitish-yellow nodules affecting mainly the finger pads, with no sign of arthritis and no other complaints.

She declined biopsy, but fine needle aspiration of the tumor for cytology confirmed the presence of uric acid crystals.

A diagnosis of gout was made based on the clinical picture, the finding of hyperuricemia (18.6 mg/dL) and the cytology report. She was commenced on treatment with a combination of colchicine, NSAIDs, systemic glucocorticoids and xanthine oxidase inhibitors at the maximum appropriate doses, which produced no significant clinical or biochemical response; therefore, her condition was considered to be chronic tophaceous gout refractory to conventional therapy. Subsequently, a course of infliximab 3 mg/

Figure 1. Tumor on the left elbow of a 76-year-old woman.

kg at weeks 0, 2, and 6 and then every 8 weeks for 6 months was instituted, which was associated with dramatic clinical improvement and a reduction in the plasma level of uric acid.

DISCUSSION

Gout is the most common cause of inflammatory arthritis in men; it is a debilitating condition that if untreated can result in a chronic progressive disease, including tophaceous gout. In the elderly it is associated with notable clinical and therapeutic differences from the classical form. The burden of the disease increases particularly in the elderly, in whom arthritis, impaired gait and visual problems may compound the disability. Chronic gout, moreover, may aggravate heart and kidney disease and increase overall mortality and therefore early organ-related diagnosis and appropriate treatment is important.

In this case, tophi presenting as nodules at the distal interphalangeal joints, the dorsal aspect of the proximal interphalangeal and metacarpophalangeal joints and as a large tumor on the left elbow arose in a postmenopausal woman with no previous signs of gout.

The differential diagnosis included calcium pyrophosphate deposition disease (pseudogout), calcinosis cutis and rheumatoid or cholesterol nodules,[4,5] but the diagnosis of gout was strongly considered in view of the clinical picture, and confirmed by the histopathological findings and hyperuricemia.

Many drugs, including low-dose aspirin, diuretics, cyclosporine, ethambutol, pyrazinamide, ritonavir, levodopa, infliximab and nicotinic acid[5] have been found to alter the purine metabolism and induce a state of hyperuricemia and gout in clinical practice.

It is estimated that difficult-to-treat gout affects about 1% of the overall gout patients in the United States.[6]

Multiple new treatment approaches have emerged for gout. Several of these are designed to target the acute inflammation of gout flares by inhibiting interleukin-1 (IL-1), either with an antibody or with a molecule that traps IL-1. Two drugs in this category are rilonacept and canakinumab. Other new approaches targeting and increasing urate excretion by the kidney are being developed. One such promising drug is lesinurad, which decreases serum urate through inhibition of the uric acid transporter (URAT1) in the proximal tubule of the kidney.

A role for biological therapy in the management of gout has been proposed. Anti-tumor necrosis factor (TNF) agents, a cytokine that plays some role in the disease, have been evaluated in a few case studies,[7] although experimental studies in rats with gout have not shown any inflammation inhibition of the acute response in this disease. The IL-1 receptor antagonist anakinra, approved for rheumatoid arthritis, was studied in 10 patients with acute and polyarticular gout, resolving the attack in 9 patients without adverse effects.[8] Rilonacept, a soluble IL-1 receptor-Fc fusion protein, was evaluated in 10 refractory gout patients, resulting in lessening of pain and a decrease in the blood levels of C-reactive protein (CRP). A good safety profile was shown, although no improvement in the number of joints affected was demonstrated.[9] Canakinumab is an IL-1 fully human monoclonal antibody investigated in a phase II study that involved 200 patients with acute gout. An intramuscular injection of 150 mg canakinumab was superior in effect to triamcinolone acetonide, and no toxicity or infections were observed.[10]

In conclusion, reaching target serum urate levels is associated with improvement in clinical outcomes, including a reduction of acute inflammation episodes, resolution of tophi and perceived improvement in health-related quality of life. A number of urate-lowering drugs are available, but in spite of their use numeral patients fail to achieve or maintain therapeutic serum urate levels and go on to develop refractory chronic gout.

It is hoped that new treatments and new strategies for gout will lead to additional options. The expansion of the armamentarium for gout treatment will allow clinicians and patients to increase the chances of gout remission.

ΠΕΡΙΛΗΨΗ

Τεράστιος τόφος σε ουρική αρθρίτιδα με καλή απόκριση στην ινφλιξιμάμπη

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Μια γυναίκα, ηλικίας 76 ετών, παραπέμφθηκε για διερεύνηση ενός μεγάλου όγκου στον αριστερό αγκώνα, ο οποίος πρωτοεμφανίστηκε πριν από 10 χρόνια, με μικρά σταθερά κιτρινωπά οζίδια στις εγγύς και στις άπω φαλαγγοφαλαγγικές αρθρώσεις, όπου καταδείχθηκε ότι επρόκειτο για εκδήλωση κλασικής ουρικής αρθρίτιδας. Η θεραπεία με ινφλιξιμάμπη οδήγησε σε σημαντική βελτίωση της κλινικής εικόνας.

Λέξεις ευρετηρίου: Βιολογική θεραπεία, Ινφλιξιμάμπη, Μεταβολικά νοσήματα, Ουρική αρθρίτιδα

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