

## RHEUMATOID AND GOUTY ARTHRITIS: TWO TYPES OF NODULES TRAFFICKING IN ONE PATIENT

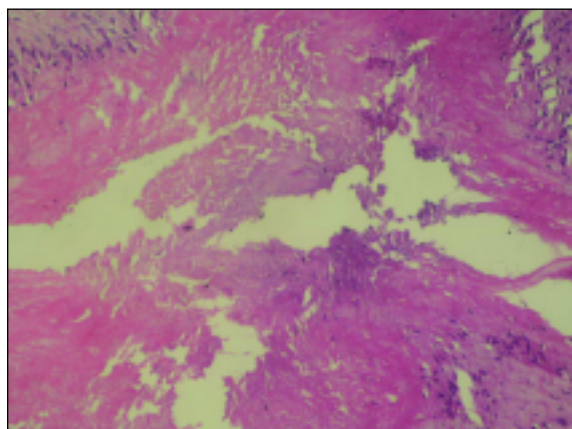
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To the editor,

A 54-year-old female was seen due to swelling and pain in the joints of both hands and feet. She had a diagnosis of sero-positive rheumatoid arthritis (RA) for the last 15 years without any strict follow-up. Four years ago, she had noticed swelling and nodules on her elbows and the pathological examination had been consistent with a rheumatoid nodule. One year later, she had suffered multiple small skin nodules on the palmar sides of the fingers. At that time, pathological evaluation had revealed a top-haceous nodule (Figure 1). Accordingly, she had been diagnosed as gout and colchicine 1 mg/day and allopurinol 300 mg/day had been added to her treatment (methotrexate and low dose steroids; switched onto leflunamide 20 mg/day later on).

Currently, she had pain, tenderness and swelling particularly in the joints of her feet. Morning

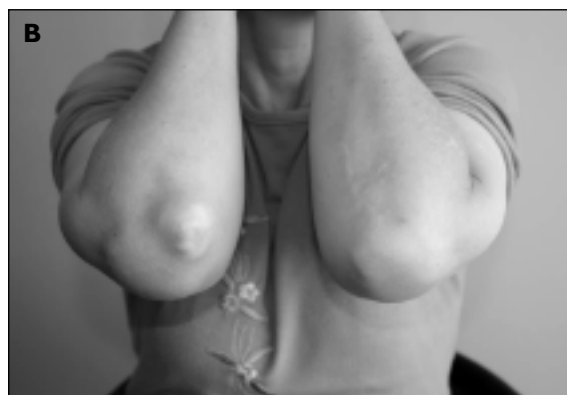
stiffness was less than one hour and she denied smoking or any particular diet. Physical examination revealed minimal limitation of the wrist joints, swan neck deformities on the fifth digits. Small palmar nodules were observed on the first, third and fourth interphalangeal joints bilaterally (Figure 2A). She had also a nodule on the left elbow and a scar on the right side (Figure 2B). She had subluxation, hallux valgus and mallet finger deformities in the feet. No nodules or soft tissue swellings except the synovial hypertrophy in the ankle joints were observed in the feet. Laboratory evaluations (inclu-



**Figure 1.** Fragmented and unfragmented nodules with amorphous pale staining (center basophilic, around it eosinophilic) material surrounded by palisaded layers of histiocytes and occasional multinucleate giant cells (HE, x200).

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**Figure 2. A)** Photograph of the patient's hands (volar side) demonstrating the bilateral nodules in the fingers; **B)** Photograph of the patient's elbows demonstrating the nodule on the right side and the incision scar on the left side.

ding thyroid, renal/liver functions tests) were normal except the followings: erythrocyte sedimentation rate (ESR): 50 mm/h (0-20), hemoglobin: 10.4 g/dl (>12), anti-cyclic citrullinated peptide (anti-CCP): 155 u/ml (<20) and rheumatoid factor (RF): 139 IU/ml (<20). Blood and urine cultures were negative. DAS 28 score was 2.74 and HAQ score was 0.5. Hand x-rays showed subluxations with soft tissue swellings and small cysts on the 5th distal interphalangeal, 2nd and 3rd metacarpophalangeal joints. Overhanging margins were observed on the 2nd and 3rd distal interphalangeal joints in both hands. There were periarticular osteopenia in tarsal joints along with marked subluxation and erosive changes in metatarsophalangeal joints of both feet. Repeat biopsy from the finger nodule was consistent with tophaceous gout. Overall, our patient was diagnosed to have both RA and gout. She was treated with colchicine (1 g/day), allopurinol (300 mg/day) and leflunomide (20 md /day).

Although rheumatoid and gouty arthritides are commonplace, concomitance of both diseases is rarely reported in the literature.<sup>1-7</sup> Symmetric polyarthritis, morning stiffness and RF positivity can be seen in both diseases. As such, the differential diagnosis may be extremely difficult.<sup>8</sup> Patients with concomitant RA and gout (when compared with RA alone) are generally males and they are significantly older.<sup>7</sup> Majority suffers a gouty attack before the diagnosis of RA. They have more comorbidities, most often diabetes, nephrocalcinosis, hypertension and chronic kidney disease. RF positivity is less common, but serum creatinine and urate levels are significantly higher.<sup>1</sup> Our case was different from the patients described in the previous reports; she was a female with a younger age. Further, she had a diagnosis of seropositive RA (also anti-CCP positive) for 15 years (before the diagnosis of gout). Her hand x-rays were resembling gouty arthritis; whereas, x-rays of the feet were typical for RA. Moreover, she had both rheumatoid and gout nodules. Although patients with both RA and gout had fewer gout attacks under anti-rheumatic medications;<sup>9,10</sup> our patient exhibited tophaceous gout after treatment for RA.

In conclusion, the differential diagnosis and management of concomitant RA and gout can be quite difficult. Nevertheless, it would be noteworthy that both conditions can lead to significant debilitation if not identified and managed promptly.

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