

Rheumatoid Arthritis Masking Polyarticular Tophaceous Gouty Arthritis

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Abstract : Gout is a disorder of purine metabolism characterised by hyperuricemia, deposition of monosodium urate monohydrate crystals in joints and periarticular tissues with recurrent attack of acute synovitis. We report a case of 36yrs old male on presentation likely to have rheumatoid arthritis on evaluation diagnosed to have Polyarticular gout. The coexistence of gout and RA in our patient is unquestionable. He had evidence of seropositive destructive RA, hyperuricemia, acute gout, and MSU crystals. As Rheumatoid arthritis is far more prevalent than gout, it would be expected that a patient with both disorders would be diagnosed first as having rheumatoid arthritis. Although the coexistence of RA and gout is extremely rare, the latter should be sought in patients with inflammatory arthropathies as medical management of rheumatoid varies from gout.

Keywords – Gout, Rheumatoid arthritis, Tophi.

I. Introduction

Gout is a disorder of purine metabolism characterised by hyperuricemia, deposition of monosodium urate monohydrate crystals in joints and periarticular tissues with recurrent attack of acute synovitis. More common in men 20:01[male: female], common in middle aged to elderly men and in post menopausal women. Rheumatoid arthritis and gout are relatively common disease, but their coexistence is extremely rare. The diagnosis of rheumatoid arthritis and gout are still hampered because 10% patients with rheumatoid arthritis[1] have hyperuricemia and 30% of patient with tophaceous gout may have low titre RA factor[2]. We report a case of 36yrs old male on presentation likely to have rheumatoid arthritis on evaluation diagnosed to have Polyarticular gout.

II. Case Report

36yrs old male presented to our department of orthopaedics with long standing history of pain and swelling of multiple small and large joints of both feet and hands for approximately 10years with early morning stiffness. Patient was diagnosed as rheumatoid in an outside hospital and was treated with steroids and dmards for past 5years. Patient initially had a symptomatic treatment and now having pain in bilateral ankle, knee, elbow (Fig 1, Fig 2). Now patient presented to us with severe pain and swelling of 1st left foot metatarsophalangeal joint. Laboratory findings were ESR-52/hr, Serum uric acid -7.2mg /dl, anti ccp <0.5, ASO titre <200, CRP-1.2, RA factor-positive. X ray of feet showed narrowing of joint space at 1st MTP joint, subarticular cyst and soft tissue swelling.



Fig 1



Fig 2

Swelling at the MTP joint became warm and tender with features of inflammation with infection hence planned for incision and drainage. Intraoperatively multiple paste like crystalline particle found in the MTP joint and in surrounding soft tissue (Fig 3). Histopathological analysis revealed multiple crystalline material with surrounding area of inflammation with presence of giant cells suggesting tophaceous gout (Fig 4). Patient was started on allopurinol and patient symptomatically improved and got discharged.



Fig 3

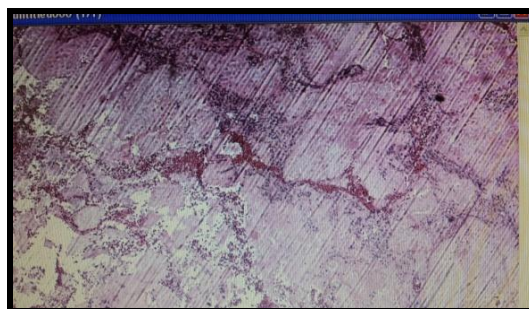


Fig 4

III. Discussion

The coexistence of gout and RA in our patient is unquestionable. He had evidence of seropositive destructive RA, hyperuricemia, acute gout, and MSU crystals. As Rheumatoid arthritis is far more prevalent than gout, it would be expected that a patient with both disorders would be diagnosed first as having rheumatoid arthritis. In our case also patient was initially treated as rheumatoid arthritis and secondarily diagnosed as gout. Certain criteria are included before confirmation of diagnosis, these include seropositive RA or histological confirmation of rheumatoid nodule and recurrent attack of gout with identification of monosodium urate crystals in the joint.

The reason for the usual mutual exclusion of RA and gout is not clear. Hyperuricemia may have some protective immunosuppressive effect[3]. A blocking effect of RF on Fc receptors adsorbed on MSU crystal surfaces and a negative correlation between serum uric acid concentration and clinical activity in rheumatoid arthritis have been demonstrated[4]. As noted, hyperuricemia occurs in about 10% of rheumatoid arthritis patients, and has been related to the use of aspirin and analgesics, which may affect the excretion or renal handling of uric acid. Most rheumatic diseases disproportionately affect women rather than men; however, while women are distinctly less affected by gout in premenopausal years, their frequency of gout increases afterwards. Predisposing factors for gout include an underlying joint disease, use of diuretics, and renal impairment.

The coexistence of gout and other autoimmune disorders, such as ankylosing spondylitis and RA, is rare[5,6]. Besides in the rare cases reported, only one report in the English literature described the coexistence of intradermal tophi and RA; the remaining cases were acute gouty arthritis and RA[7]. Crystalline arthritis (gout and pseudogout) can become chronic and even assume a Polyarticular distribution. The diagnosis is established by the finding of urate or calcium pyrophosphate crystals, respectively, in synovial fluids. The presence of tophi on physical examination, the detection of serological markers of RA, and the characteristic appearance of gouty erosions are also useful in distinguishing RA from Polyarticular gout.

IV. Conclusion

Although the coexistence of RA and gout is extremely rare, the latter should be sought in patients with inflammatory arthropathies as medical management of rheumatoid varies from gout.

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