

## Crystal: Diagnosis and management of gout

Naomi Schlesinger

Rutgers - Robert Wood Johnson Medical School, USA

Gout is the most common inflammatory arthritis in humans. Some 8.3 million Americans have gout (3.9% of Americans). Gout is typically seen as a lifestyle disease, the result of inactivity and a rich diet. If patients simply ate a more balanced diet, the thought goes, their gout would disappear. Neither the cause nor the treatment of gout is that simple. Diet is only helpful to a very small degree because most of the uric acid pool is not the result of diet but from the breakdown of cells.

X-rays are not very helpful in the diagnosis of gout because it takes years to see joint changes suggestive of gouty arthritis on a plain X-ray and serum urate levels may not be diagnostic because about half of patients with acute gout have normal serum urate levels. To make a definitive diagnosis of gout, monosodium urate crystals need to be found in synovial fluid and/or tophi. Topical ice also may be helpful in diagnosing gout patients. Therefore, application of topical ice should be part of the history taking and physical examination when one suspects acute gout, or if the nature of the inflammatory arthritis is unclear. Knowing that gout is more common in the spring may also be helpful.

Gout patients require medications to lower the uric acid pool and combat acute and chronic gouty inflammation. Anti-inflammatory drugs are essential during the acute attack. Nonsteroidal anti-inflammatory drugs (NSAIDs), colchicine, and corticosteroids are the most commonly used drugs for acute gout. Recent trials with interleukin-1 inhibitors show great promise.

Urate-lowering therapies (ULT), as well as prophylaxis against attacks, are used for chronic treatment. Xanthine oxidase inhibitors such as allopurinol and febuxostat are the standard of care. Pegloticase, a uricase, is new to the market and may be important for the reducing the uric acid pool. A variety of new ULT, mostly uricosuric drugs, are currently in development. Prophylaxis should be initiated when starting ULT and includes NSAIDs, colchicine. Recent trials with interleukin-1 inhibitors show great promise.

Clinicians and patients will say 'It's just gout'. It's not just gout, it's a serious disease. Gout needs to be accurately diagnosed and treatment needs to be improved. One needs to terminate the acute attacks, control hyperuricemia and tissue deposition using the target serum urate level of <6.0 mg/dL, as well as using prophylactic medications to prevent acute attacks. Education regarding the diagnosis and treatment of gout is the key.

### Biography

Naomi Schlesinger is the Chief of the Division of Rheumatology and Rheumatology fellowship program director at UMDNJ/Robert Wood Johnson Medical School in New Brunswick, NJ, where she is Professor of Medicine in the Department of Medicine. She is a noted authority in the field of gout, having published papers regarding the diagnosis, treatment, and better understanding of the pathogenesis of gout. She is the author of over 190 scientific articles, abstracts, book chapters and reviews. She is currently the President of the New Jersey Rheumatology Association. In addition she is the Co-chair, American College of Rheumatology - Crystal Study Group- as well as the Co-chair, American College of Rheumatology Abstract Reviewer Selection Process: Metabolic and Crystal Arthropathies. She has a special interest in evidence-based medicine and serves as a co-facilitator of the Acute Gout Review Group for Cochrane International Collaboration as well as a member of the OMERACT Gout Special Interest Organizing Group.

[schlesna@umdnj.edu](mailto:schlesna@umdnj.edu)