Gout Deserves Tender Treatment in Elderly

An individualized approach is needed for success in long-term care residents.

BY CHRISTINE KILGORE

The prevalence of gout has increased in the United States, especially among the eldest population, according to the latest national data. That means that nursing home staff are caring for more hot, swollen, and inflamed joints than ever, said several experts on the topic.

In interviews, they added that clinicians' potential success in preventing, diagnosing, and treating the disease in long-term care residents lies largely in fundamental practices and an individualized approach to medications.

Data from the National Health and Nutrition Examination Survey (NHANES) show an increase in gout prevalence among U.S. adults from 2.7% in the survey's 1994-1998 reporting periods to 3.9% in 2007-2008. Meanwhile, the prevalence in adults aged 80 years and older jumped from 5.9% to 12.6%.

The prevalence of hyperuricemia, which usually precedes gout, was 31% in adults aged 65 years or older and 37% among those aged 80 years and older, according to the latest NHANES data.

The increase in actual gout occurred mainly among men in NHANES. Other studies, however, have documented an increased prevalence of the disease among older women as well. Studies cited in a review of "Crystal-Associated Arthritis in the Elderly" showed women making up at least half of the cases in which gout first strikes after age 60 years. Among individuals who have a first episode after age 80, women seem to predominate (Rheum. Dis. Clin. N. Am. 2007;33:33-55).

The presentation of the disease, as well as its prevalence, is changing, said Dr. Arthur Weinstein, professor of medicine at Georgetown University, Washington, and director of rheumatology at the Washington Hospital Center. "We're seeing more and more polyarticular gout in older patients, for instance, either as an initial presentation or years after just a single monoarticular episode" with no subsequent recurrences, he said in an interview.

He and others said they believe that the common use of thiazide diuretics in older patients is a major driver of gout's changing profile. Other factors could include genetic predispositions to hyperuricemia and gout and increasing obesity, insulin resistance, and metabolic syndrome in the aging population.

While often the best choice for hypertension management, thiazide diuretics can contribute to the development of chronic hyperuricemia, as can low-dose aspirin and cyclosporine. Also, increasing numbers of elderly people have chronic cardiac and renal disease – factors that have been associated with hyperuricemia and gout.

Other changes in gout's presentation in the elderly include earlier and often-atypical development of the soft tissue masses known as tophi and more frequent and earlier involvement of the small joints of the fingers.

Diagnosis, Empiric Therapy

The differential diagnosis of a swollen, inflamed joint often involves ruling out the likelihood of septic arthritis, fracture, or other injury, and pseudogout – the other main form of crystal-induced arthritis.

Patients experiencing an acute gout attack can have a low-grade fever. "But with a fever of 101 or higher, you have to consider that it's something that's not crystal induced," said Dr. John W. Rachow, a geriatrician and rheumatologist at the University of Iowa, Iowa City.

Septic arthritis should also be suspected when patients have joint pain and tachycardia, hypotension, or signs of other acute illness. "And if there is hardware in the joint, even without a fever, patients should be evaluated at a higher level," said Dr. Rachow, who also serves as an attending physician in numerous nursing homes in the Iowa City area.

While the diagnostic standard for gout – synovial fluid or tophus aspiration with the identification of monosodium urate crystals under polarizing microscopy – can seem even more important in the older population, it is also more untenable given the stresses of transporting nursing home patients to hospitals.

A good long-term care mind-set can preclude the need for crystal confirmation in every case, said clinicians interviewed for this story.

"In health care, we tend to turn things into acute episodes when they're really acute exacerbations of chronic conditions," said Dr. George Taler, director of long-term care in the department of medicine at the Washington Hospital Center and medical director of the Capitol Hill Nursing Center, both in Washington.

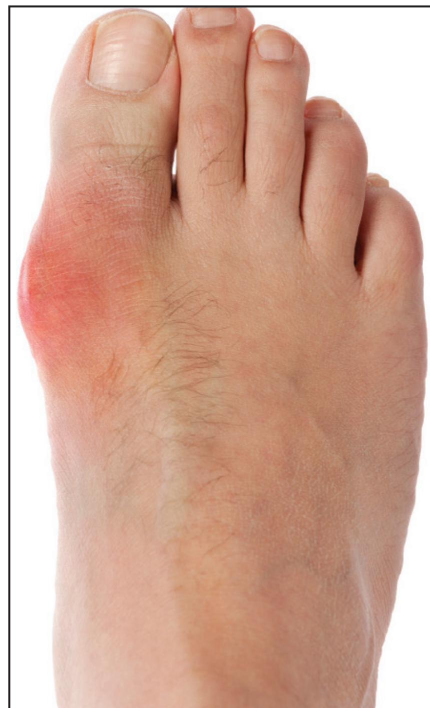
Diagnosing and treating gout mean "remembering that our patients have a history," said Dr. Taler. He advised "making sure that when the nurse calls about a swollen knee, he or she has reviewed the medical record."

A host of factors can indicate the likelihood that joint pain is a gout attack. These include a history of gout, persistent elevated uric acid levels, and the use of medications or existence of medical conditions associated with gout. Blood testing at the time of an attack is not informative, said Dr. Rachow. While most patients with gout have chronically elevated uric acid levels, serum uric acid levels at the time of an attack are frequently normal, he explained.

Gout should also be considered in elderly patients when attacks of acute pain and swelling are seen in osteoarthritic joints of the fingers, especially in patients who have renal disease or are on chronic diuretic therapy.

An older patient without a history of gout and without any obvious risk for gout or sign of a septic joint probably has pseudogout, which is caused by the deposition of calcium pyrophosphate dihydrate rather than monosodium urate. Pseudogout often strikes the wrist or the knee and does not commonly involve polyarticular attacks, as gout does.

With a suspicion of either gout or pseudogout, a short empiric course of anti-inflammatory treatment should be considered, said Dr. Rachow. "If it really is crystal induced, you'll know in 12 hours and definitely within 24 hours" because the pain will begin to subside, he said.


©CRAFTVISION/ISTOCKPHOTO.COM

The presentation of gout, as well as its prevalence, has been changing.

"And, at that point, if you've started with a nonsteroidal anti-inflammatory and it's working well, you can add a gastroprotective agent and continue the NSAID, reducing the dose once symptoms begin to improve. Or you can switch to colchicine."

If the anti-inflammatory treatment is "not working spectacularly well within 24 hours, you need to put the brakes on, close your office door, and think things over again," he said.

Facilities that have a sizable number of patients with frequent flares probably should have a nurse practitioner or a physician assistant trained to aspirate joints and arrange the logistics for sending out samples, Dr. Taler said.

The Longer Term

With a correct approach, "gout is eminently preventable and treatable in 90% of nursing home residents," said Dr. Weinstein. "The principles are studied, reported, and well described," he said. The American College of Rheumatology plans to release its first practice guidelines on the management of gout in 2012.

Decisions about managing acute attacks – whether to use NSAIDs, glucocorticoids, or oral colchicine – are rightly driven by the severity of gout and consideration of the patient's coexisting illnesses and the drugs' side effects. While NSAID use carries the risk of gastropathy, colchicine can cause diarrhea and other potentially serious side effects and should be avoided in patients who have renal or hepatic insufficiency.

Many clinicians consider colchicine a second-line therapy for acute gout, after NSAIDs or corticosteroids. In very elderly people, however, the treatment decision might be different. Dr. Weinstein said he worries about possible cardiac risks with the use of NSAIDs in very old patients. He has had success with the early use of low-dose colchicine in very elderly patients with reasonable kidney function, and he said that the drug "works best in the first 48-72 hours."

Parenteral corticosteroids, intra-articular injections, or even an oral prednisone taper are good options, he emphasized. Issues of whether and how to move from acute management of gout attacks to long-term urate-lowering therapy are taking on added significance in nursing homes as the prevalence of gout increases there.

Dr. Rachow recommended hypouricemic therapy for patients with documented hyperuricemia and a history of multiple attacks, and for patients who have developed tophi. It can even be considered for a frail, ill nursing home resident for whom a second gout attack would be unusually complicating and traumatic, said Dr. Rachow.

When it is deemed beneficial, the urate-lowering therapy must be undertaken with care, he emphasized.

Hypouricemic therapy should start only after an acute attack is completely resolved (or even 2-4 weeks after flare resolution), with cautious dosing and careful monitoring for adverse effects and, when possible, under the cover of a prophylactic anti-inflammatory drug. Low-dose colchicine has long been used to prevent flares associated with the lowering of urate.

Allopurinol, the xanthine oxidase inhibitor most often prescribed to lower urate levels, should be "started low and increased slowly" in older patients with renal impairment, Dr. Weinstein said.

A xanthine oxidase inhibitor called febuxostat (Uloric) was approved in 2009 for treatment of hyperuricemia in patients with gout, but its efficacy and safety compared with allopurinol is not fully established (N. Engl. J. Med. 2011;364: 443-52).

Also on the medication front is a newly approved drug called pegloticase (Krystexxa), which might be a good option for patients who cannot use allopurinol, said Dr. Weinstein.

Dr. Rachow and Dr. Taler said they had no conflicts of interest to disclose on this topic. Dr. Weinstein disclosed that he has received research grants from Savient Pharmaceuticals, the maker of pegloticase, for a clinical study, but not for any therapeutic studies. ■