

## Acute Gout Raises Risk More

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base matched to the cases by follow-up duration and by calendar year.

The average age was 79 years among the cases and 77 years among the controls. Both the cases and controls were evenly split among men and women. Identification of gout relied on hospitalization, a physician visit, or a diagnostic code in the medical record.

During an average follow-up of 2 years, the rate of death or new heart failure hospitalization was 63% higher in the patients with gout than in those without gout, a statistically significant difference in an analysis that controlled for several demographic and clinical variables including age, sex, comorbidities, and medications.

The risk for death or heart failure hospitalization was even higher in patients who had acute gout, with a twofold higher risk in the adjusted analysis. The researchers defined acute gout as hospitalization or a physician visit for gout within 60 days of the index heart failure event.

Another pair of analyses looked at the impact of allopurinol treatment. Among patients with an index heart failure event who also had gout treatment with allopurinol, there was a significant 31% reduction in the subsequent rate of death or heart failure hospitalization in the adjusted analysis.

This benefit was limited to the pa-

tients on chronic allopurinol treatment for more than 30 days. Patients on allopurinol for 30 days or fewer showed no

significant reduction in mortality or new heart failure hospitalizations.

The allopurinol analysis also showed no link between the drug and outcomes for the entire heart failure population studied, suggesting that benefit from allopurinol is not general for all heart fail-

ure patients, only those with gout.

The next step is to assess the relationship between heart failure, gout, and allopurinol treatment in a prospective, controlled study, Dr. Thanassoulis said, adding that he and his associates had no financial conflicts of interest. ■

## Allopurinol May Not Deserve the Credit

MY TAKE

The relationship between serum uric acid level and cardiovascular disease is controversial. Studies suggest that hyperuricemia is a risk factor for CVD and death, yet it is unclear whether uric acid has a causal role. Previous studies have focused on the relationship between hyperuricemia, gout, and CVD. In contrast, relatively little research has investigated the relationship between hyperuricemia and heart failure. Studies suggest that patients with heart failure have hyperuricemia, yet the relationship between heart failure and gout is unclear. However, rheumatologists have suspected that there is a relationship between heart failure and gout. Patients with heart failure frequently have risk factors for gout.

A recent analysis presented by Dr. Thanassoulis at the American Heart

Association annual meeting showed that acute and chronic gout are associated with an increased risk of heart failure readmission and death. In patients with gout, the use of allopurinol was associated with reduced heart failure admissions, death, and all-cause mortality. The study authors suggested that allopurinol may exert its beneficial

effects by inhibiting oxidative stress and endothelial dysfunction. This study confirms rheumatologists' previous suspicions of the tight association between heart failure and gout. However, given the retrospective and observational nature of this study, we are unable to draw conclusions about the causal relationships between heart failure, gout, and hyperuricemia. In addition, caution is required in interpreting their findings

regarding allopurinol use and risk of heart failure admission and death. Similar observational analyses suggested that estrogen therapy was cardioprotective, yet controlled trials did not support these findings. Similarly, patients who take allopurinol may differ from patients who do not take allopurinol. Thus, findings may reflect confounders, such as health care utilization patterns and medication adherence, rather than a direct effect of allopurinol on outcomes. This study does remind all rheumatologists of the importance of cardiovascular risk factor modification in patients with gout. In addition, it suggests that future work should evaluate whether treatment of hyperuricemia in patients with and without gout leads to improved cardiovascular outcomes.

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## Calif. Rheumatologist Extends Clinical Care to Inmates

BY DOUG BRUNK

Every Friday, Dr. Shariar Cohen-Gadol drives 71 miles from his home in West Los Angeles to California State Prison, Los Angeles County, a 262-acre facility in Lancaster that houses more than 5,000 convicted felons, some of whom have rheumatoid arthritis, osteoarthritis, or other rheumatologic disorders. To the California prison system, these inmates need medical care despite their being held in minimum, high-medium, and maximum custody, and Dr. Cohen-Gadol is the physician who provides that care.

Dr. Cohen-Gadol described the overall rheumatologic care provided to California inmates as being better than what some managed care organizations offer. If an inmate with moderate to severe arthritis fails to respond to methotrexate, "I have no problem getting him adalimumab or etanercept," he said.

"My recommendation may have to be reviewed by the chief medical officer at the institution. But so far, I have been impressed by how prisons have been able to provide [anti-tu-

mor necrosis factor] agents so fast."

The care he gives the California inmates with rheumatologic disorders is not limited to infusions of biologic agents. Dr. Cohen-Gadol does everything from giving general physical exams to administering intra-articular injections and conducting follow-up visits with those who've started therapy with anti-TNF agents or other medications.

Telemedicine also plays a roll in this care. Dr. Cohen-Gadol uses a telemedicine setup that is located in a dedicated office at the prison and provides him with access via two-way video feed to about 30 other sites in the state operated by the California Department of Corrections and Rehabilitation, a program that he helped launch nearly 2 years ago.

"We may consult with four or five institutions by telemedicine in one day," said Dr. Cohen-Gadol, a rheumatologist who practices in Thousand Oaks. "I call in and the other health care providers appear on the TV screen. We may evaluate two inmates from one institution, or five follow-ups. I take the histo-

ry and the nurse at the other end of the connection does the exam."

He said he was drawn to the work because it broadens his clinical experience without the burden of administrative overhead. His interest in the health issues of prison populations was born during his residency at the University of California, Los Angeles, when he conducted grand rounds on the manifestations of hepatitis C. At the Lancaster facility, at least one-third of inmates are infected with the disease.

"That means that more than 1,200 have chronic hepatitis C," he said, noting that most of the inmates he treats are in their 30s and 40s. The chronic infection seems to increase the inmates' risk for some markers of rheumatologic disorders. With hepatitis C, many patients "have antibodies for markers of lupus, like [antinuclear antibody], or markers of rheumatoid arthritis, like rheumatoid factor. It creates an enigma for the primary care doctors, so I get the referrals."

He's seen cases of cryoglobulinemia, Raynaud's disease, exotic rashes, kidney involvement,

hives, urticaria, joint pain, myalgia, and polyarthralgia associated with hepatitis C.

"One thing that increases the difficulty of providing rheumatologic care to inmates is the limitation of using certain drugs in patients with hepatitis C infection," Dr. Cohen-Gadol commented. "A lot of drugs are immunosuppressive and are processed through the liver, like methotrexate. That makes it difficult for a patient with chronic RA. Sometimes we have to use drugs like etanercept or adalimumab because they have worse disease.

"It creates a challenge." If an inmate needs an intramuscular injection, the nursing staff can administer it locally. However, for intra-articular or bursa/tendon injections, an on-site physician needs to give it. "This is obviously one of the many shortcomings of telemedicine," he said.

However, many glitches in his efforts to provide care have nothing to do with flaws of technology. "We are sometimes limited when inmates refuse care, or there are lockdowns, or they are getting paroled, or there are family visits," Dr. Co-

hen-Gadol explained. "Let's say you're scheduled to see 20 patients one day. Maybe you'll see 13 or 15 patients instead. It's not perfect."

As the only rheumatologist consultant for the California's prison system, Dr. Cohen-Gadol endures long waits, sometimes up to 4 months, for certain tests, imaging, and follow-up visits. "Patients may have to be transferred to an academic center for a biopsy."

He went on to note that the physician-patient relationship in the prison setting is different because "you're dealing with a population you can't fully trust. Many of the patients have a history of polysubstance abuse. A large number have used cocaine, heroin, and crystal methamphetamine. Some of the patients with whom you deal are very manipulative and drug seeking. Others are rude and abusive. Some are brought in wearing shackles because of their past histories. But most of them behave pretty well because they know they need your help."

Telemedicine works for the prison system "because it saves the taxpayers a lot of money," he said. ■