Gout Risk Factors Similar for Women and Men

By Mitchell L. Zoler

Philadelphia — Women’s risk factors for developing gout are similar to those in men, and baseline serum levels of uric acid may be the most powerful predictor, findings from the Framingham Heart Study show.

Women with no clinical indication of gout but a serum uric acid level of 8.0 mg/dL or greater at baseline had a subsequent 2.7% rate of gout during an average 28 years of follow-up—a 46-fold higher rate than women with a serum uric acid level of less than 5 mg/dL, at baseline, Dr. Vidula Bhole said at the annual meeting of the American College of Rheumatology.

Serum uric acid likewise posed a powerful risk in men. Those with a level of 8 mg/dL or more at baseline had a 3.3% annual risk in men. Those with a level of 5.0-5.9 mg/dL had a 46% lower chance than women during an average 2.7% rate of gout among people who entered the study with a serum level below 5.0 mg/dL.

Even a baseline uric acid level of 5.5-5.9 mg/dL conferred a greater than threefold higher risk for developing gout in men and a greater than fourfold higher risk in men, compared with those whose level was under 5 mg/dL, said Dr. Bhole, an epidemiologist in the Arthritis Research Centre of Canada at the University of British Columbia in Vancouver. (See table.)

Age, obesity, and heavy alcohol and diuretic use were linked to a higher rate of incident gout in both genders.

Dr. Bhole and her associates used prospectively collected data from more than 5,000 residents of Framingham, Mass., who entered the Heart Study in 1948, at a baseline age of 29-62 years. Among the enrollees, 4,427 had no history of gout at entry and formed the focus for the new analysis.

The group included 2,476 women, with an average age of 47 years and an average serum uric acid level of 4.0 mg/dL. The group also included 1,967 men who entered at an average age of 46 years and a mean serum uric acid level of 5.1 mg/dL.

Average body mass index was 25 kg/m2 in women and 26 kg/m2 in men. The prevalence of hypertension was 15% in women and 11% in men. The prevalence of heavy alcohol users was 6% of women and 25% of men, while the prevalence of moderate alcohol users was 24% of women and 29% of men.

The subjects developed 304 cases of gout during an average 28 years of follow-up, with an incidence rate of 1.4 cases/1,000 person-years of follow-up in the women and 4.0 cases/1,000 person-years follow-up in the men.

An analysis of gout incidence rates relative to baseline serum uric acid showed that, for any baseline level, women developed less gout than men. For example, among people who entered the study with a serum level of 7.0-7.9 mg/dL, the subsequent incidence was 1.3% in women and 1.8% in men. A multivariate analysis identified several baseline factors linked to a significantly higher rate of incident gout in both genders: age, obesity, heavy alcohol use, hypertension, and diuretic use.

Dr. Bhole said she had no relevant financial relationships. Two of her study colleagues received grant support from and served as consultants to Takeda. One of Dr. Bhole’s associates also serves on the advisory board for Savient, a company developing a uric acid-lowering drug.

Water, Skim Milk Consumption May Improve Gout Control

By Amy Rothman Schonfeld

Philadelphia — Drinking water or skim milk can improve gout control, according to findings from two studies that highlight the important contribution of lifestyle factors on gout prevention and management.

“Our results show that drinking water is a simple, safe, and effective means of trying to reduce recurrent gout attacks,” Dr. Tuhina Neogi said at the annual meeting of the American College of Rheumatology.

The study included 535 people who had had a gout attack within the past year (78% male; mean age, 53 years) and who provided information via the Internet about food, drink, medications, physical activity, and other possible gout risk factors during periods preceding the attack and during attack-free periods. By using a crossover study design, the participants acted as their own controls. Medical records were accessed to verify gout diagnosis, explained Dr. Neogi of Boston University.

The findings showed that increased water intake was associated with decreased risk for recurrent gout attacks. Compared with those who drank no or one 8-ounce glass of water per day, those who drank five to eight glasses had a 40% lower chance of a gout attack and those who drank more than eight glasses had a 46% lower chance.

In the second study, researchers from New Zealand measured the acute effects of skim milk supplementation on serum urate concentrations in 16 healthy male volunteers, in a random order, with each study visit separated by a week. The amount consumed was equal to about 3.5 8-ounce glasses of milk in one sitting (80 g of protein in 800 mL). Serum and urine were obtained immediately before ingestion and then hourly for the next 3 hours.

Drinking soy milk led to a 10% increase in serum urate. In contrast, all skim milks decreased serum urate by about 10% (P < .0001). All products, including soy, led to an increase in the fractional excretion of uric acid (FEUA).

Interestingly, there were differences among the types of milk, which may shed light on the underlying mechanism. Late-season skim milk led to a greater increase in FEUA, compared with either ultrafiltered skim milk or early-season skim milk, suggesting that the acute urate-lowering effect of orotic acid may explain these effects.

“Our model has not yet examined these results from [healthy individuals] to those with gout,” Dr. Dalbeth acknowledged. Furthermore, I am not saying drinking milk would replace allopurinol. But one of the key things we do is spend a lot of time telling people with gout what not to do, such as do not eat red meat. It is very useful to have some positive information.”

“Even though gout has been known since antiquity, and we have had treatments around for decades, it is not a well-managed disease. Medical management is still the cornerstone. Still, there are a lot of lifestyle and behavioral aspects that people with gout can do for themselves to reduce their risk,” Dr. M. Elaine Husni, vice chair of rheumatology and director of the arthritis and musculoskeletal center at the Cleveland Clinic, said when she was asked to comment on the results of both studies. Dr. Neogi reported having no conflicts of interest. Dr. Dalbeth said that her study was funded in part by the Fonterra Dairy Cooperative, and that one of the study authors was an employ-ee of Fonterra.