

News Release

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VIDEO ALERT: A video interview with Dr. Matteson is available for journalists to download on the <u>Mayo Clinic News Network</u>.

<u>EMBARGOED</u>: Hold for release until Saturday, Nov. 10, 2012, 4:30 p.m. ET *American College of Rheumatology* News Bureau 200 First Street SW Rochester, Minnesota 55905

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Rheumatoid Arthritis Patients can get Gout too, Mayo Clinic Study Finds Use of gut bacteria to treat autoimmune diseases among other research presented at ACR

WASHINGTON — Refuting a belief long held by many physicians, a Mayo Clinic study found that <u>rheumatoid arthritis</u> patients also can get <u>gout</u>. The research is among several studies <u>Mayo Clinic</u> is presenting at the <u>American College of Rheumatology</u> annual meeting in Washington. Researchers also found that gut bacteria has potential to treat autoimmune disorders, rheumatoid arthritis patients are at higher risk for cancer, broken bones put rheumatoid arthritis patients in greater danger of heart disease and death, and corticosteroids are a mainstay of rheumatoid arthritis treatment even as new drugs emerge.

The <u>gout study</u> shows that, contrary to conventional wisdom, rheumatoid arthritis patients aren't immune to the nation's obesity-fueled gout epidemic, says lead author <u>Eric Matteson, M.D.</u>, chair of the <u>Division of Rheumatology</u> at Mayo Clinic in Rochester, Minn. The two are distinct conditions, treated differently. Rheumatoid arthritis is an autoimmune disease in which the immune system mistakenly attacks tissues, inflaming joints. In gout, the body produces too much uric acid or has problems flushing it out, and urate crystals build up in joints, causing inflammation and intense pain.

The reason it was thought that rheumatoid arthritis patients didn't get gout likely had to do with the way rheumatoid arthritis used to be treated, Dr. Matteson says. Such patients used to be given aspirin in high doses, and that coincidentally helped their kidneys expel uric acid. Aspirin is no longer used much for rheumatoid arthritis, and that, combined with a rise in obesity, is likely fueling gout in rheumatoid arthritis patients, he says.

"It is probably true that flares of rheumatoid arthritis in some cases might have actually been flares of gout, and that the gout wasn't diagnosed; it wasn't realized that it was a coexistent problem," Dr. Matteson says. "Awareness that gout does exist in patients with rheumatoid arthritis hopefully will lead to better management of gout in those patients."

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Researchers studied 813 patients diagnosed with rheumatoid arthritis between 1980 and 2007 and followed them as long as they were alive and in the county, until last April. The study used the <u>Rochester</u> <u>Epidemiology Project</u>, a <u>National Institutes of Health-supported</u> pool of Olmsted County, Minn., patient medical records from Mayo and other health care providers.

Twenty-two patients developed gout over the study period, most often in the big toe. Gout was more common in patients diagnosed with rheumatoid arthritis from 1995 on. The risk factors for gout were the same as in the general population: being overweight, being older and being male.

Other Mayo studies being presented at the rheumatology conference found that:

- Gut bacteria, specifically *Prevotella histicola*, have anti-inflammatory benefits that could help treat autoimmune disorders such as <u>lupus</u>, rheumatoid arthritis and <u>ankylosing spondylitis</u>. Researchers examined the possibility using mice, and more studies are planned. "This is a hot area of research now," says Dr. Matteson, who wasn't part of the study team.
- <u>Corticosteroids</u>, whose discovery at Mayo Clinic earned the <u>Nobel Prize</u> in 1950, are still a common treatment for rheumatoid arthritis even as newer drugs with fewer side effects emerge. The proportion of patients on the drugs at any given point in their rheumatoid arthritis is actually higher than it used to be, the study found. "Not only do we think that they're helpful in controlling symptoms of disease, especially in the first year, but we also are realizing that they have some effect in modifying the disease course," says Dr. Matteson, the lead author. "We try to use the minimum amount possible for the shortest time necessary."
- Rheumatoid arthritis patients have a higher risk of developing blood <u>cancers</u>, particularly <u>lymphoma</u>. One of the immune system's top jobs is to seek and destroy cancer cells, and in rheumatoid arthritis patients that can fail due to the autoimmune disorder itself and to drugs that treat it by suppressing the immune system, Dr. Matteson, the lead author, says. More research is needed to understand the risk factors in individual patients. A small number of patients get lymphoma, and they tend to have more severe rheumatoid arthritis, Dr. Matteson says.
- Rheumatoid arthritis patients who have cardiovascular disease are more likely to test positive for <u>rheumatoid factor</u> in their blood, and those who are positive for rheumatoid factor seem to have immune systems that age faster, and also have accelerated risk of cardiovascular disease.
- Rheumatoid arthritis patients who have broken bones are at higher risk of cardiovascular disease and death. The chronic inflammation in rheumatoid arthritis may be a factor.

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The following abstracts included conflict-of-interest disclosures: rheumatoid arthritis and gout; mortality after fragility fractures; accelerated aging; and fractures associated with increased risk of cardiovascular events. For more information, see the ACR <u>abstract supplement</u>.

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