

## Gout may lessen chances of developing Alzheimer's disease

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People who have gout are significantly less likely to develop Alzheimer's disease, concludes research published online in the *Annals of the Rheumatic Diseases*.

Gout appears to have a protective effect for the brain, possibly thanks to uric acid, the chemical in a person's blood that can crystallize, leading to gout, said a team of researchers from north America.

Gout, the most common inflammatory arthritis, is linked to a higher risk of heart and kidney problems and their resulting health issues, but previous studies have theorised that the antioxidant properties of uric acid may protect against the development or progression of neurodegenerative conditions such as Parkinson's disease (PD).

Researchers led by the Division of Rheumatology, Allergy, and Immunology at Massachusetts General Hospital, and at Boston University Medical Center, in Boston, USA, set out to evaluate the potential impact of gout on the risk of developing Alzheimer's disease (AD) amongst the general population.

The team conducted a study using data from The Health Improvement Network (THIN), an <u>electronic medical record</u> database from general practices that is representative of the UK general population, from 1 January 1995 to 31 December 2013.

They looked at 3.7 million people aged 40 and over who had been



registered and enrolled with a practice for at least one year during the period studied. Individuals diagnosed with gout or any dementia prior to the start of follow-up were excluded from the study.

Analysis was carried out of Alzheimer's disease amongst adults with gout compared with up to five non-gout individuals matched by age, date of study entry, enrolment year and <u>body mass index</u> (BMI) using the THIN data.

Participants were followed up until they developed Alzheimer's disease, died, left the THIN database or the follow-up ended, whichever came first.

Overall, the researchers identified 309 new cases of Alzheimer's disease among 59,224 patients with gout (average age of 65) and 1,942 cases among 238,805 people in the comparison group over an average fiveyear follow up.

They found there was a 24% lower risk of Alzheimer's disease amongst people with a history of gout, after taking into account age, sex, BMI, socio-economic status, lifestyle factors, prior heart conditions and use of heart drugs.

The authors concluded: "Our findings provide the first population-based evidence for the potential protective effect of gout on the risk of AD [Alzheimers' disease] and support the purported neuroprotective role of <u>uric acid</u>.

"If confirmed by future studies, a therapeutic investigation that has been employed to prevent progression of PD [Parkinson's disease] may be warranted for this relatively common and devastating condition."

More information: Annals of the Rheumatic Diseases,



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