

**Annual European Congress of Rheumatology
(EULAR 2019)**

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EXPOSURE TO INORGANIC DUST INCREASES RISK OF GOUT IN WOMEN BY 27%

Results also show that gout is more than twice as likely in alcoholic patients and more than three times as likely in obese patients.¹

Madrid, Spain, 12 June 2019: The results of a study presented today at the Annual European Congress of Rheumatology (EULAR 2019) demonstrate that occupational exposure to inorganic dust is a previously unknown risk factor for gout and also confirm known risk factors, such as alcoholism and obesity.¹

Gout is caused by deposits of crystals of a substance called uric acid (also known as urate) in the joints, which leads to inflammation. Periods of time when gout symptoms appear are called flares. Flares can be unpredictable and debilitating, developing over a few hours and causing severe pain in the joints. However, not all people with a high level of uric acid go on to develop the disease. Additional factors, such as genetics, comorbidities, lifestyle or occupation impact who develops gout.

Inorganic dust is made up of mineral based dust such as asbestos, silica and coal. Some occupations involve high exposure to these substances; such as cleaners, maintenance staff, plumbers, electricians, car fitters, welders, and machinery mechanics.^{2,3,4,5} This occupational exposure has already been linked to an increased occurrence of other inflammatory rheumatic diseases such as rheumatoid arthritis but this was the first study to look at a potential link with gout.^{6,7,8}

Initial analysis demonstrated a significant association between gout and occupational exposure to inorganic dust in all patients (Odds Ratio: 1.10, 95% confidence interval (CI):1.04-1.17). The association was further analysed using multivariate analysis to adjust for risk factors found to be related to both gout and exposure to inorganic dust within the study. Once this was done, the relationship was attenuated in all patients (OR:1.07, 95% CI:0.99-1.14) but remained significant in women (OR:1.27, 95% CI:1.07-1.51).¹

“This is the first time occupational exposure to inorganic dust has been shown to be associated with the development of gout,” said MD Valgerdur Sigurdardottir, University of Gothenburg, Sahlgrenska Academy, Department of Rheumatology and Inflammation Research, Gothenburg, Sweden. “Further study is needed to understand the dangers of exposure to inorganic dust in relation to gout and other inflammatory rheumatic diseases.”

The study included data on known risk factors as possible cofounders to occupational exposure to inorganic dust and multivariate analysis showed that gout was very strongly associated with obesity and alcoholism. Results show that gout is more than twice as likely in

alcoholic patients (OR:2.26, 95% CI:1.94-2.62), and more than three times as likely in obese patients (OR:3.75, 95% CI:3.36-4.19).¹

“Gout is a disabling disease that is very common across Europe,” said Professor Thomas Dörner, Chairperson of the Scientific Programme Committee, EULAR. “Identification of risk factors is very important as it allows us to recognise those susceptible to developing the disease and implement early prevention and management strategies.”

The study included 6,120 cases who were diagnosed with gout between 2006 and 2012 (with no additional gout diagnoses during the previous six years) from the population-based healthcare database of the Western Swedish Health Care Region. Data on occupation was collected from official registries and a job exposure matrix for inorganic dust previously developed was used to assign exposure status.⁹ Each case was matched with up to five controls in the census register by Statistics Sweden based on age, sex, and place of residence who were also employed during the predictor period. Data on predefined comorbidities known to be potential risk factors for gout (psoriasis, renal disease, alcohol abuse, obesity and diuretic treatment) were collected and analysed as possible cofounders to occupational exposure to inorganic dust. Analyses were conducted on the whole population and stratified by gender.¹

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NOTES TO EDITORS

For further information on this study, or to request an interview with the study lead, please do not hesitate to contact the EULAR Press Office:

Email: eularpressoffice@ruderfinn.co.uk

Telephone: +44 (0) 20 7438 3084

Twitter: @EULAR_Press

EULAR TV: YouTube.com/EULARorg

About Rheumatic and Musculoskeletal Diseases

Rheumatic and musculoskeletal diseases (RMDs) are a diverse group of diseases that commonly affect the joints, but can also affect the muscles, other tissues and internal organs. There are more than 200 different RMDs, affecting both children and adults. They are usually caused by problems of the immune system, inflammation, infections or gradual deterioration of joints, muscle and bones. Many of these diseases are long term and worsen over time. They are typically painful and limit function. In severe cases, RMDs can result in significant disability, having a major impact on both quality of life and life expectancy.¹⁰

About EULAR

The European League against Rheumatism (EULAR) is the European umbrella organisation representing scientific societies, health professional associations and organisations for people with RMDs. EULAR aims to reduce the burden of RMDs on individuals and society and to

improve the treatment, prevention and rehabilitation of RMDs. To this end, EULAR fosters excellence in education and research in the field of rheumatology. It promotes the translation of research advances into daily care and fights for the recognition of the needs of people with RMDs by the EU institutions through advocacy action.

To find out more about the activities of EULAR, visit: www.eular.org

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