

Positive causal association between rheumatoid arthritis, bronchiectasis

July 24 2024, by Elana Gotkine



There is a causal association between genetically predicted rheumatoid arthritis (RA) and increased risk of bronchiectasis, according to a study [published](#) in *Frontiers in Medicine*.

Yuanyuan Li, from the Wuhan Fourth Hospital in China, and colleagues obtained RA genome-wide association study (GWAS) data and bronchiectasis GWAS data to examine whether genetically predicted RA is associated with the risk of bronchiectasis and vice versa. Inverse variance weighted (IVW) estimation was used as the main method for univariate Mendelian randomization (UVMR) analysis. To validate the findings, bidirectional and replication MR analysis, multivariate MR (MVMR), mediation analysis, and sensitivity analyses were conducted.

The researchers found that in the UVMR analysis, the IVW results indicated an increased risk of bronchiectasis for RA (odds ratio, 1.18). In the reverse MR analysis, there was no evidence of a causal effect of bronchiectasis on RA risk. RA remained associated with an increased risk of bronchiectasis in the replication MR analysis. In MVMR analyses, estimates remained consistent after adjustment for prescription of nonsteroidal anti-inflammatory drugs and glucocorticoids. Overall, 58% of the effect of RA on bronchiectasis was mediated by immunosuppressants.

"Health care providers should be vigilant about the potential onset of bronchiectasis in patients with RA," the authors write. "The underlying pathophysiological mechanisms linking the development of bronchiectasis in RA patients warrant further comprehensive investigation."

More information: Yuanyuan Li et al, The causal relationship between rheumatoid arthritis and bronchiectasis: a bidirectional Mendelian randomization study, *Frontiers in Medicine* (2024). [DOI: 10.3389/fmed.2024.1403851](https://doi.org/10.3389/fmed.2024.1403851)

2024 HealthDay. All rights reserved.

Citation: Positive causal association between rheumatoid arthritis, bronchiectasis (2024, July 24) retrieved 24 July 2024 from <https://medicalxpress.com/news/2024-07-positive-causal-association-rheumatoid-arthritis.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.