Gastroesophageal reflux disease (GERD) increases the risk for rheumatoid arthritis (RA), according to a study published online Aug. 1 in *Scientific Reports*.

Quan Yuan, from the First Hospital of Jilin University in Changchun,
China, and colleagues used Mendelian randomization (MR) to assess the causal relationship between GERD and RA.

The researchers found that MR results suggest a causal effect of the genetic susceptibility of GERD on RA (discovery dataset, inverse variance weighting, odds ratio, 1.41; validation dataset, inverse variance weighting, odds ratio, 1.38). When adjusting for confounding factors between GERD and RA, including smoking quantity, drinking frequency, body mass index, depression, and education attainment, MR analysis results were similar. However, the reverse MR analysis did not show evidence that RA can increase the risk for developing GERD.

"This finding is crucial for deepening our understanding of the pathogenesis of RA and may offer new insights for the prevention and treatment of RA," the authors write. "It also offers a new perspective on preventing the occurrence of GERD in patients with RA. However, based on the results of the reverse MR analysis using the existing dataset, compelling evidence was not found for RA increasing the risk of developing GERD."

More information: Quan Yuan et al, Gastroesophageal reflux disease increases the risk of rheumatoid arthritis: a bidirectional two-sample Mendelian randomization study, Scientific Reports (2024). DOI: 10.1038/s41598-024-64966-w

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