Respiratory disease may increase risk for rheumatoid arthritis

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Vanessa L. Kronzer, M.D., from the Mayo Clinic in Rochester, Minnesota, and colleagues used data from the Epidemiological Investigation of Rheumatoid Arthritis study to identify 1,631 incident RA cases and 3,283 matched controls recruited from 2006 to 2016. These data were linked to the National Patient Register to identify past acute or chronic and upper or lower respiratory disease diagnoses. Associations between respiratory disease and RA were evaluated.

The researchers found that respiratory disease diagnoses were associated with the risk for RA, with a higher risk seen for acute upper (adjusted odds ratio [aOR], 1.2; 95 percent confidence interval [CI], 0.8 to 1.7), chronic upper (aOR, 1.4; 95 percent CI, 1.1 to 1.9), acute lower (aOR, 2.4; 95 percent CI, 1.5 to 3.6), and chronic lower respiratory disease (aOR, 1.6; 95 percent CI, 1.2 to 2.3). Regardless of rheumatoid factor (RF) or anticitrullinated peptide antibody (ACPA) status, the associations remained; however, they were somewhat stronger for ACPA/RF+ versus ACPA/RF? RA. For nonsmokers, the association between any respiratory disease and RA was stronger than for smokers (aORs, 2.1 [95 percent CI, 1.5 to 2.9] and 1.2 [95 percent CI, 0.9 to 1.5], respectively).

"These findings raise the hypothesis that smoking and airway disease are associated with RA development through partly different mechanisms," the authors write.

More information: Abstract/Final Text (subscription or payment may be required)