There appears to be no association between severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and autoimmunity related to type 1 diabetes development in children and adolescents, according to a research letter published online Aug. 5 in the *Journal of the American Medical Association*.

Marian Rewers, M.D., Ph.D., from the Barbara Davis Center for Diabetes at the University of Colorado in Aurora, and colleagues offered a cross-sectional screening for islet autoantibodies and SARS-CoV-2 antibodies to *children* and *adolescents* aged 1 to 18 years participating in the Autoimmunity Screening for Kids study in Colorado and to children aged 1 to 10.9 years from the Frida study in Bavaria, Germany. The presence of multiple or single high-affinity islet autoantibodies that carry, respectively, a 50 and 30 percent risk for progression to clinical diabetes in five years was assessed as a study outcome.

The researchers found that 32.3 percent of the 4,717 Colorado youths and 6.1 percent of the 47,253 Bavarian children had prior SARS-CoV-2 infection. Multiple islet autoantibodies were detected in 0.45 and 0.30 percent of children from Colorado and Bavaria, respectively, and 0.55 and 0.11 percent of youths, respectively, were positive for a single high-affinity islet autoantibody. There was no difference observed in the prevalence of multiple or single high-affinity islet autoantibodies between youths with and without previous SARS-CoV-2 infection in either cohort. After controlling for confounders, previous SARS-CoV-2 *infection* was not significantly associated with the presence of multiple islet autoantibodies or a single high-affinity islet autoantibody.

"Long-term follow-up of persons with preexisting *autoimmunity* is necessary to determine whether SARS-CoV-2 accelerates progression to clinical diabetes," the authors write.

More information: Abstract/Full Text

Copyright © 2022 HealthDay. All rights reserved.