Prior SARS-CoV-2 infection less protective against Omicron variant

February 11 2022

(HealthDay)—Previous severe acute respiratory syndrome coronavirus 2

(SARS-CoV-2) infection is about 90 percent effective for preventing reinfection with the alpha, beta, and delta variants but offers lower protection against reinfection with the Omicron variant, according to a letter to the editor published online Feb. 9 in the *New England Journal of Medicine*.

Heba N. Altarawneh, M.D., from Weill Cornell Medicine-Qatar in Doha, and colleagues extracted data related to COVID-19 vaccination and clinical infections to estimate the effectiveness of previous infection in preventing symptomatic new cases caused by Omicron and other SARS-CoV-2 variants in Qatar using a test-negative, case-control study design.

The researchers found that the effectiveness of previous infection in preventing reinfection was estimated to be 90.2, 85.7, 92.0, and 56.0 percent against the Alpha, Beta, Delta, and Omicron variants, respectively. The study results were confirmed in sensitivity analyses. Among patients with reinfection, progression to severe COVID-19 occurred in one, two, none, and two patients with the Alpha, Beta, Delta, and Omicron variants, respectively. Reinfections did not progress to critical or fatal disease. With respect to protection against severe, critical, or fatal COVID-19, the effectiveness of previous infection was 69.4, 88.0, 100, and 78.8 percent against the alpha, beta, delta, and Omicron variants, respectively.

"The protection of previous infection against hospitalization or death caused by reinfection appeared to be robust, regardless of variant," the authors write.

One author disclosed financial ties to Gilead Sciences.

More information: Abstract/Full Text