A team of researchers affiliated with a host of institutions in South Africa has found evidence that suggests people who have been infected with the COVID-19 Omicron variant may be less susceptible to infection from the Delta variant. The team has written a paper describing their work.

As the global pandemic has progressed, variants have emerged—some more resilient than others. Thus far, the Delta variant has proven to be the hardest and because of that has overtaken the original virus as the most widespread of the variants infecting people around the world. More recently, the Omicron variant has emerged, first in South Africa, then all around the world. Initial reports indicate that the new variant is much more easily spread than Delta but is less harmful to those infected—also, there has been some evidence that the booster shots given for the original and Delta variants may last for as little as ten weeks against Omicron. In this new effort, the researchers in South Africa have found some evidence of Omicron infections giving people some degree of immunity from Delta infections.

The work by the team in South Africa involved testing 15 people who had been infected with the Omicron variant—some of whom had been vaccinated and some of whom had not—to see how well their immune systems would respond to a Delta infection. They found they had all developed some degree of enhanced immunity to the Delta variant. The researchers then tested the blood samples from the same 15 people two weeks later to see how well they put up a fight against both Omicron and Delta. In so doing, they saw a 14-fold increase in ability to overcome Omicron and a 4.4-fold increase in an ability to overcome Delta.

The researchers note that 11 of the patients had been vaccinated (and two were excluded) and that there was a good chance that most or all of them had been infected with either the original version of the virus or the Delta variant—thus it is not clear what was behind the increased resistance to Delta. They note that much more work needs to be done before any conclusions can be drawn about the impact of Omicron on resistance to Delta.

**More information:** Omicron infection enhances neutralizing immunity against the Delta variant, *medRxiv* 2021.12.27.21268439; DOI: 10.1101/2021.12.27.21268439


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