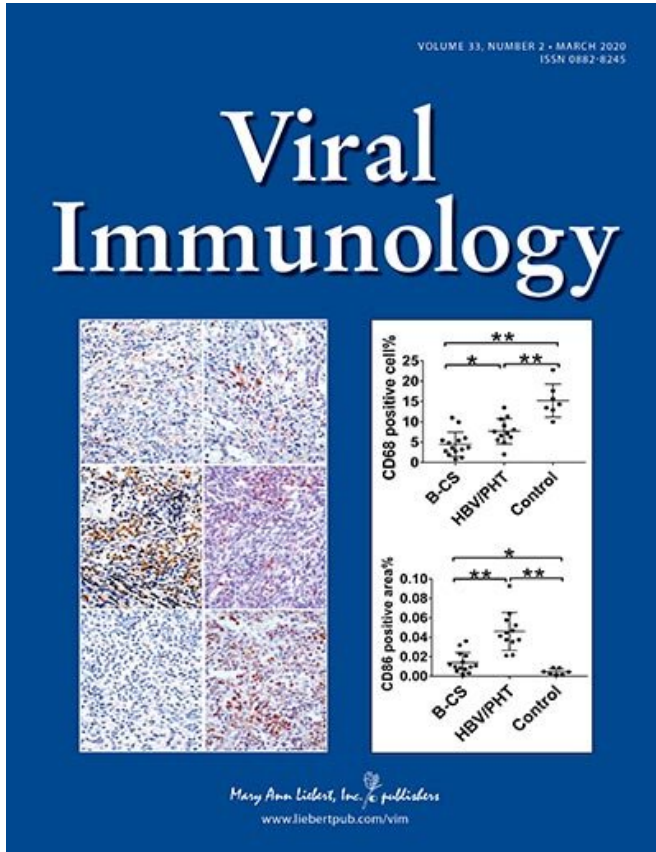


What underlies differing disease severity in COVID-19?

29 April 2020



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Researchers have reported a significant and positive relationship between the amount of virus present in a throat swab sample and the severity of COVID disease. The higher the relative viral load in the sample, the greater the organ damage, and the longer it would take for the viral RNA count to turn negative, according to the results published in *Viral Immunology*.

In "Correlation Between Relative Nasopharyngeal Virus RNA Load and Lymphocyte Count Disease Severity in Patients with COVID-19" Wei Zhang and coauthors from The First Affiliated Hospital of

Nanchang University (Jiangxi, China), collected nasopharyngeal samples from patients with mild and severe COVID-19. They measured the level of viral RNA in the sample, also known as the viral load. Viral load correlated positively with the severity of disease symptoms and with increased inflammatory factors. There was a negative correlation between SARS-CoV-2 viral load and lymphocytes, such as CD4+ and CD8+T lymphocytes, which fight infection.

David L. Woodland, Ph.D., Editor-in Chief of *Viral Immunology* and Adjunct Member of the Trudeau Institute in Saranac Lake, NY, states: "We currently have only a limited understanding of why some patients with the SARS-CoV-2 [virus](#) develop severe, life-threatening symptoms, whereas others do not. In this paper, Zhang and colleagues present data correlating viral loads in the nasopharynx with [disease](#) severity and progression. These important findings potentially offer [medical professionals](#) with crucial information when deciding on treatment options for COVID-19 patients."

More information: Yang Liu et al, Correlation Between Relative Nasopharyngeal Virus RNA Load and Lymphocyte Count Disease Severity in Patients with COVID-19, *Viral Immunology* (2020). [DOI: 10.1089/vim.2020.0062](https://doi.org/10.1089/vim.2020.0062)

Provided by Mary Ann Liebert, Inc

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