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SARS-CoV-2 RNA CAN PERSIST IN BLOOD AND TISSUES, POTENTIALLY PLAYING A ROLE IN LONG COVID

Fragments of SARS-CoV-2 viral RNA can remain in the **blood and tissues** for over a year after infection, researchers at the University of California San Francisco (UCSF) claim, suggesting they could contribute to forms of **long COVID**.

In two studies, researchers found **SARS-CoV-2 RNA** in blood for up to 14 months post-infection or even up to 2 years in connective tissue samples from 171 COVID-19 survivors without evidence of reinfection.

The team obtained the samples from the UCSF Long COVID Tissue Bank, which has donations from patients with and without long COVID.

The likelihood of having **persistent** viral fragments was approximately doubled in hospitalized participants and those who reported being very ill but were not hospitalized, these associations confirming that a patient who had a severe form of COVID may have more viral antigen that can persist.

These two studies provide some of the strongest evidence to date that COVID antigens can persist

in certain individuals, even those with an optimal immune status.

Viral RNA was identified in connective tissue where **immune cells** are located, thus justifying a possible **prolonged immune response**.

Further research is needed to determine if viral RNA plays a role in long COVID and to elucidate the mechanisms of **associated events** such as heart attacks or strokes.

UCSF is involved in clinical studies examining the ability of monoclonal antibodies or other antiviral drugs to eliminate viral RNA, respectively, and to benefit patients with COVID-19.

By understanding the pathophysiology of COVID infection, a therapeutic approach with the potential to prevent severe adverse events could be developed.

Adapted after Mary Van Beusekom, MS, 08 March 2024

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