

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit https://www.djreprints.com.

LIFE & ARTS | YOUR HEALTH

Are Latent Viruses Causing Long Covid-19 Symptoms? Patient Groups Push for Testing

A new theory that reactivated older viruses are driving some of the coronavirus's debilitating symptoms is gaining traction among some patient advocates



Scientists are starting to explore what some believe may be a tantalizing clue to the mysterious symptoms of long Covid-19: the reactivation of latent viruses.

PHOTO: PHOTO ILLUSTRATION BY WSJ; PHOTO: ISTOCK



By <u>Sumathi Reddy</u>
July 13, 2021 9:00 am ET

More <u>long Covid-19</u> patients are pushing to investigate what they believe is fueling some of their debilitating long-term symptoms: dormant viruses that have been reactivated by the coronavirus.

An estimated 10% to 30% of all Covid-19 patients suffer from symptoms weeks and months after first getting the illness, including many young, previously healthy people whose initial Covid-19 cases were mild. Symptoms can include brain fog, fatigue, shortness of breath, racing heart beat and an inability to tolerate physical or mental exertion.

Public health officials around the world are trying to figure out exactly what is causing the symptoms; the National Institutes of Health earlier this year unveiled a major initiative to study long Covid-19, backed by \$1.15 billion in funding. Yet scientists still know very little about the causes of the condition, and have even fewer treatments to offer.

Most people—whether they have had Covid-19 or not—have dormant, normally harmless viruses in their body that they contracted years earlier. Among the most common are the

herpes family of viruses. That includes the Epstein-Barr virus (EBV), which causes mononucleosis, as well as human herpesvirus 6 (HHV-6), which causes the common childhood illness sixth disease, the herpes simplex viruses, and herpes zoster, a reactivation of the chickenpox virus that can cause shingles. Such viruses can be reactivated at times by stress, including infections.

Some long Covid-19 patients and advocacy groups are urging doctors to test more regularly for reactivated viruses. With so few treatment options for long Covid-19, they say, it makes sense to see if a herpes antiviral drug might relieve symptoms. Some doctors say it is worth more testing and further study. Others say the tests are difficult to interpret—and that even if a latent virus does reactivate, it is unclear whether that is causing long Covid-19 symptoms.

SHARE YOUR THOUGHTS

If you or someone you know has had Covid-19, what have been some of the most vexing symptoms? Join the conversation below. In June, a study published in the medical journal Pathogens suggested a possible association between Epstein-Barr reactivations and long Covid-19. In a set of 30 long Covid-19 patients, about 67% were positive for EBV reactivation, researchers found. That compared with about 10% of the control group, who had contracted Covid-19 but didn't experience long-term

symptoms. The researchers tested for reactivation based on the levels of two antibodies they say are associated with active or reactivated EBV infection.

David Hurley, a molecular microbiologist who studies EBV reactivation and was a coauthor on the study, says latent EBV can be reactivated by stress. Some people experience fatigue, brain fog and other symptoms that are also commonly reported by long Covid patients, says Dr. Hurley. For some people, symptoms last only a few days, but for others they can last months or longer, he adds.

A normal, healthy immune system can keep latent viruses under control. But a Covid-19 infection "provides an opportunity to lose that control," says Amy Proal, a microbiologist at PolyBio Research Foundation, who was first author in a recent review article <u>in the journal Frontiers in Microbiology</u> examining how reactivated viruses might be contributing to long Covid-19 symptoms.

Doctors aren't routinely testing for reactivated herpes viruses in long Covid-19 patients. Commercially available lab tests covered by insurance and available to most patients aren't as sophisticated as the ones researchers use to test for viral DNA, so they aren't likely to pick up as many reactivations, says Susan Levine, a doctor at the Center for Solutions for ME/CFS at Columbia University's Mailman School of Public Health and the Cornell Center for Enervating NeuroImmune Disease.

Dr. Levine says she treats about 200 long Covid-19 patients and does test for reactivated viruses, but often uses additional tests to confirm a diagnosis. She says about 80% have evidence of reactivated EBV, with a smaller percentage also testing positive for a reactivated case of HHV-6.

Dr. Levine says it is difficult to determine how much the reactivation of viruses is contributing to long Covid-19 patients' continuing symptoms, but she believes they are playing a significant role.

WELCOME BACK Lauren Nichols is a 33-year-old Boston

We noticed you're already a member. Please sign in to continue reading WSJ or your next reading experience may be blocked.

SIGN IN

resident and volunteer executive board member of Body Politic, which has a Covid-19 support group on Slack with more than 17,000 members. The group is pushing for more aggressive testing of reactivated viruses. Mrs. Nichols got Covid-19 in March 2020 and says she has experienced long-term symptoms, including fatigue and brain fog. In September,

lab tests showed high levels of EBV, she says, and she started taking an antiviral medication commonly used to treat herpes infections. She believes it has helped relieve her fatigue and brain fog.

"There's no treatment for long Covid, but there are treatments for these viral diseases that are being reactivated in some of us," says Mrs. Nichols. "Right now it's really about symptom management to allow us to be more functional."

The potential role of reactivated viruses is worth studying, says Timothy Henrich, an associate professor of medicine at the University of California San Francisco who is part of a study following long Covid-19 patients there. "We're planning on incorporating this into our study," says Dr. Henrich.

That latent viruses are reactivated by a Covid-19 infection isn't surprising, says Dr. Henrich. The question is whether that reactivation is causing long Covid-19 symptoms, he says.

Reactivated viruses in immunocompromised patients can cause symptoms and disease that can be treated, says Dr. Henrich. But many people may have transient but detectable levels of human herpes virus that don't cause symptoms. The role of EBV in myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) has been a continuing debate in the medical community. Some studies have shown EBV reactivation in such patients, but that doesn't necessarily prove the reactivation is causing the symptoms, notes Dr. Henrich.

Benjamin Abramoff, an assistant professor of physical medicine and rehabilitation at the University of Pennsylvania who sees patients at the Post-Covid Assessment and Recovery Clinic there, says that while patient groups and patients sometimes bring up the reactivation issue, they don't test patients for it. "Given that these are seen in other disease processes, we do not think this is likely the driver of long-term symptoms," says Dr. Abramoff.

Patrick Smith, a 37-year-old investment consultant in Denver, tested positive for Covid-19 in April this year. He was hospitalized with severe pneumonia for four days. He has continued to experience longer-term symptoms, including brain fog and fatigue. He has been to three long Covid-19 clinics at hospitals, and saw an integrated-medicine doctor in Boulder. That doctor, Pierre Brunschwig, tested him for reactivated EBV and HHV-6, and says the tests indicated reactivation.

Dr. Brunschwig says he is testing all the long Covid-19 patients he sees for reactivated herpes viruses. "The immune system is depleted and distracted. It's a window of opportunity to reactivate," he says.

He treats patients with supplements, such as high-dose vitamin C and zinc, as well as antivirals but says the antivirals don't always work. "Is that because we don't have the

treatment right, or it's not an important contribution to the patient's suffering?" he says. "It's always a possibility that the labs are not definitive."

Mr. Smith recently started taking the antiviral used to treat herpes infections, which he thinks has helped his fatigue and brain fog. "It's a night and day difference," he says.

Write to Sumathi Reddy at sumathi.reddy@wsj.com

Appeared in the July 14, 2021, print edition as 'Are Latent Viruses Behind Long Covid-19 Symptoms?.'

Copyright © 2021 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers visit https://www.djreprints.com.