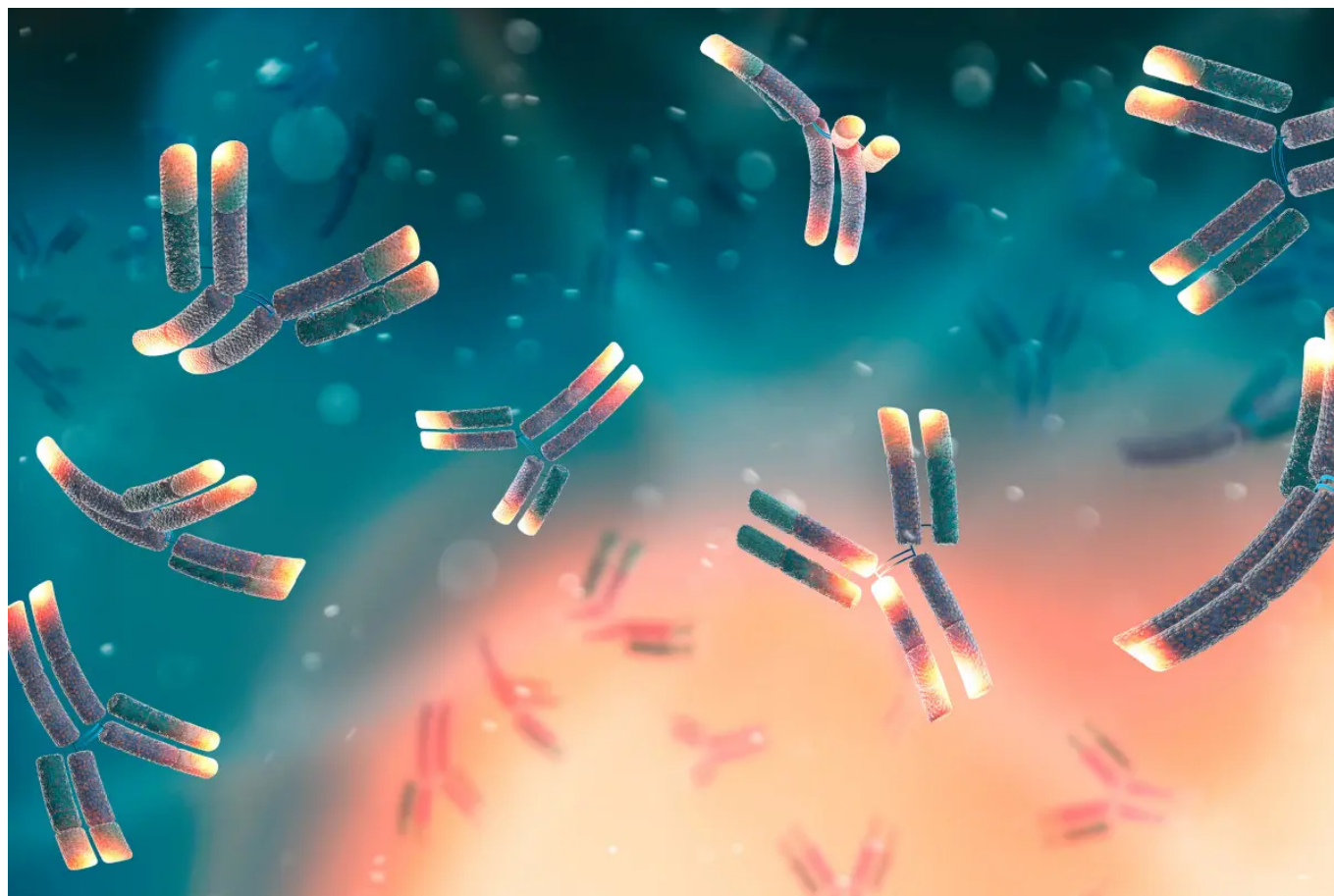HEALTH > HEALTH NEWS > COVID NEWS

Post-COVID Vaccine Syndrome Is a Physiological Disease: Study

The authors compared blood tests of people diagnosed with persistent dysautonomia and chronic fatigue syndrome after vaccination to healthy controls.

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By Marina Zhang
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A new study may have finally found biological proof of post-COVID vaccine syndrome.

The German study, led by Dr. Fritz Boege, professor of clinical chemistry and laboratory medicine at the University Hospital of Düsseldorf, showed that people who developed persistent symptoms for up to five months post-vaccination have different immune protein levels than vaccinated, asymptomatic people.

Post-COVID vaccine syndrome, abbreviated as PACVS in the study, describes symptoms that can persist for months to years after the individual received the COVID-19 vaccine. Common symptoms include fatigue, brain fog, and post-exertional malaise, and abnormalities of the heart, nervous system, muscles, and the gut.

"It's really the first recognition that biomarkers may be involved in [COVID-19 vaccine injury]," internal physician Dr. Keith Berkowitz, who was not involved in the study, told The Epoch Times. "No. 2, they're looking five to six months post-vaccination, and that really dispels the literature that these side effects are transient."

PACVS patients were compared to vaccinated people who were asymptomatic after two doses of the mRNA vaccine. The researchers found that PACVS patients had higher levels of cytokines that promote inflammation, more antibodies that may impair fluid balance and cardiovascular regulation, and reduced antibodies associated with immune balance.

"PACVS is currently not/rarely diagnosed in terms of a [physical] disease. Instead, PACVS cases tend to be classified as psychosomatic or discarded as irrelevant or imaginary," the authors wrote.

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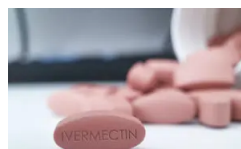
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The study provides "evidence of PACVS as a [physical] disease," they
concluded.

Biomarkers Indicate Immune Dysregulation and Clotting

The authors compared blood tests of 191 people diagnosed with
persistent dysautonomia and chronic fatigue syndrome five months
after vaccination to 89 healthy controls.

The controls had their blood samples taken both before and after
vaccination and did not develop any pathological symptoms
following vaccination.

IL-6 and IL-8 cytokine levels, which promote inflammation and are
associated with the formation of blood clots, were significantly
elevated in PACVS patients.

PACVS patients also had significantly higher AT1R and MAS 1
antibodies and lower IL-1-Rb and alpha-2b-adr-R antibodies.

The reverse was reported in the healthy control group.

AT1R and MAS 1 are involved in the body's fluid balance and
cardiovascular regulation. High antibody levels against this system
are related to dysautonomia, heart failure, chronic fatigue, and
severe COVID-19.

Interestingly, the authors saw the reduction of AT1R and MAS 1 in
the healthy control group as potentially protective. They reasoned
that the bodies of healthy controls managed to adapt to the effects of
the vaccine and, in turn, avoid developing post-vaccine symptoms.

IL-1-Rb and alpha-2b-adr-R antibodies may have increased to protect the healthy control group for the same reason.

The IL-1-Rb antibody is thought to play a role in [immune homeostasis](#), and its decline in PACVS suggests possible impaired immune regulation. Alpha-2b-adr-R antibodies [prevent platelet aggregation](#), thereby inhibiting blood clotting.

"Receptor antibody levels in sera of PACVS-affected persons were dissimilar from the post-vaccination state but similar to the pre-vaccination state of persons not suffering from PACVS," the authors wrote. Therefore, they reasoned that the post-vaccine condition may be related to a poor physiological adjustment to the effects of the mRNA vaccines.

Study Limitations

A major limitation is that while healthy controls were tracked for their biomarker changes before and after vaccination, no pre-vaccination sample was taken from the people who developed post-vaccine syndrome.

Therefore, it is unknown if patients developed such symptoms because of changes in their blood markers or if they had those markers to begin with, Dr. Berkowitz said.

"They have a relatively small sample size," nurse practitioner Scott Marsland at the Leading Edge Clinic said. "The timeframe they're working with is also relatively short. A lot of the patients that I see, unfortunately, are a year or two years out."

Some PACVS patients had a prior COVID-19 infection, but the researchers noted that the difference in biomarkers between the infected and those not infected was insignificant.

There is also considerable overlap in the relevant biomarkers in post-vaccination syndrome and long COVID, including IL-6, IL-8, and AT1R antibodies.

Further studies may be necessary to determine if the suggested biomarkers are sufficient to distinguish PACVS from long COVID and symptomatically similar conditions like chronic fatigue syndrome, the authors wrote.

The Use of Biomarkers in Diagnosis and Treatment

The authors stated that, while the current diagnostic biomarkers may not be sufficient, the use of blood markers may serve as "a stringent rule-out criterion" for future diagnostics of PACVS.

Clinicians, however, are at odds about using biomarkers for diagnosing and treating post-vaccine syndromes.

Integrative physician Dr. Yusuf Saleeby said that using biomarkers as a diagnosis may confuse clinicians.

"I have seen biomarkers go either way, with a very sick patient post-vax having normal biomarkers, including IL-6, and some rather well-looking patients with abnormally high IL-6," he said. However, he has not measured AT1R or alpha-2b-aR antibodies, he added.

"I don't think that it's that simple," Mr. Marsland said, adding that the immune dysregulation from one individual to another is highly heterogeneous, and biomarkers could vary.

Many of Mr. Marsland's patients have normal IL-6 levels, and had he used the biomarker levels as a guide, common post-vaccine treatments like low-dose naltrexone, which reduces IL-6, may never have been prescribed, he said.

Yet pathologist Dr. Bruce Patterson, the founder of IncellDx, a company that sells diagnostic cytokine panels for long COVID and post-vaccine syndromes from other chronic diseases, argued that biomarker patterns can be very helpful in coming to a suitable diagnosis and treatment for patients.

"We started with [testing] 158 different cytokines, and using machine

We started with [testing] 138 different cytokines, and using machine learning and AI, we reduced to 14," he told The Epoch Times, adding that the algorithm identifies a pattern rather than an individual marker. Like the German researchers, his team identified IL-6 and IL-8 but also discovered CCL5 and sCD40L.

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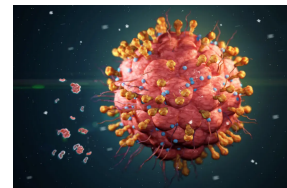
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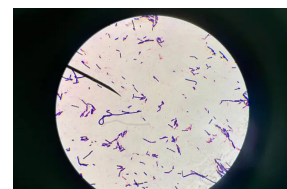
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