Medical Xpress

In COVID-19 patients, neurological symptoms may last up to three years

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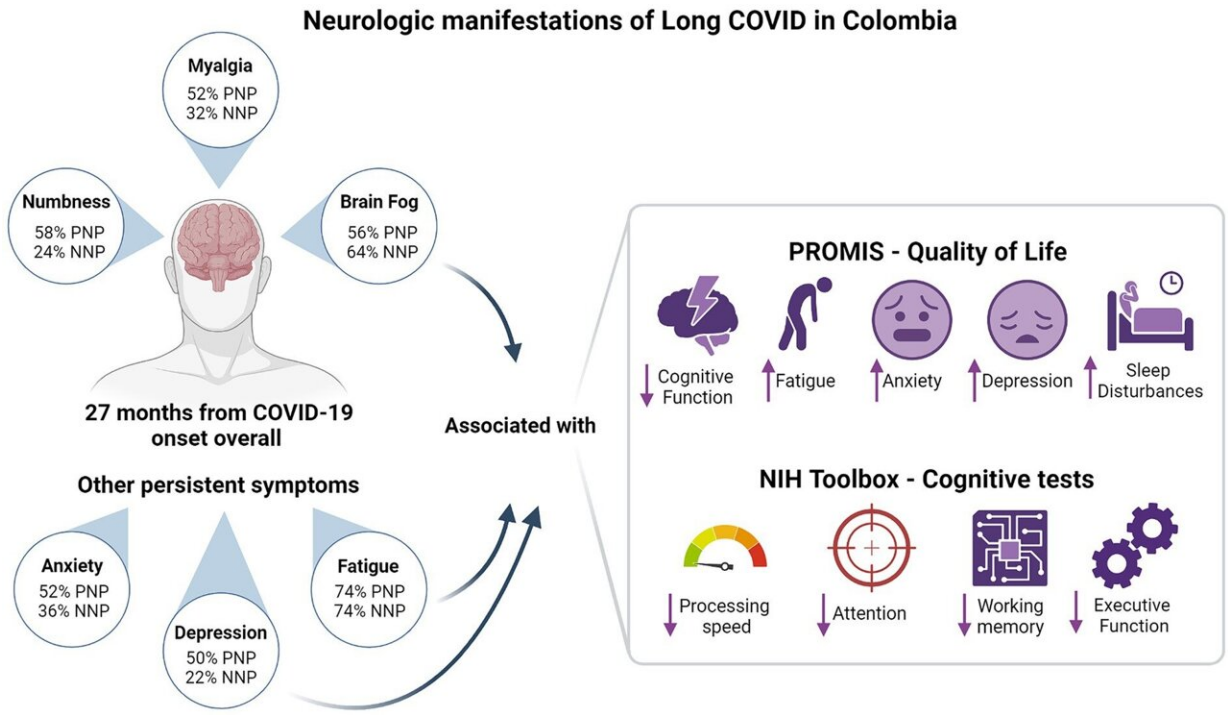

Credit: *Frontiers in Human Neuroscience* (2024). DOI: 10.3389/fnhum.2024.1450110

Scientists from Northwestern Medicine and the School of Medicine at CES University and CES Clinic in Colombia have determined that more than 60% of people who contracted COVID-19 have neurological symptoms that impact their cognitive function and quality of life, even

two and three years after COVID-19.

This finding resulted from a study with the longest follow-up time conducted in Latin America and was led by Dr. Igor J. Koralnik, chief of neuro-infectious diseases and global neurology at Northwestern University Feinberg School of Medicine, and Dr. Carolina Hurtado Montoya, with the School of Medicine at CES University in Medellín.

This study, the first in Colombia and Latin America to analyze persistent neurological symptoms, cognitive function and quality of life in long COVID-19 patients, demonstrates that the neurologic manifestations of long COVID are as frequent in Colombia as they are in the U.S.

The process

Between April 2023 and December 2023, researchers evaluated the long-term effects of COVID-19 in a group of 100 Colombian patients, which included a group of 50 people, average age of 51, who presented moderate or severe disease and were hospitalized at the CES Clinic in Medellín. The other group of 50 patients were not hospitalized, had mild COVID-19 and were an average age of 36.

Among the most significant findings, the symptoms of "brain fog," characterized by cognitive dysfunction, was experienced by 60% of patients and fatigue was experienced by 74%. These two symptoms, along with depression, most affected their quality of life and cognitive function, in both the group of patients who required hospitalization (moderate and severe COVID-19) during the acute infection, and in people who had mild COVID-19.

These results are published in *Frontiers in Human Neuroscience*. The research group is finalizing details to begin a second phase of the study, focused on cognitive rehabilitation, to improve the functionality and

quality of life of these patients. From this new effort, researchers expect to adapt and test a protocol that can later be implemented as a service at the IPS Universidad CES in Sabaneta, Antioquia, Colombia.

The numbers

The most common neurological symptoms in patients with long COVID-19 were "brain fog" in 60% of patients, muscle pain in 42% and numbness or tingling in 41%. Non-neurological symptoms were fatigue (74%), sleep problems (46%) and anxiety (44%).

Both patient groups also performed worse on processing speed and attention than the general population, the study reports.

"'Brain fog' and fatigue remained persistent regardless of the duration of long COVID, underscoring the need for comprehensive and long-term care for those affected by this condition," the authors wrote.

More information: Carolina Hurtado et al, Neurologic manifestations of Long COVID in Colombia: a comparative analysis of post-hospitalization vs. non-hospitalized patients, *Frontiers in Human Neuroscience* (2024). DOI: 10.3389/fnhum.2024.1450110

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