Collecting Data About COVID-19–Related Brain Symptoms

The National Institutes of Health (NIH) is planning to launch a new database and biobank to collect information from clinicians about neurological problems associated with coronavirus disease 2019 (COVID-19).

“We know that COVID-19 can disrupt multiple body systems but the effects of the virus and the body’s response to COVID-19 infection on the brain, spinal cord, nerves, and muscle can be particularly devastating, and contribute to persistence of disability even after the virus is cleared,” Barbara Karp, MD, program director at the NIH’s National Institute of Neurological Disorders and Stroke, said in a prepared statement.

COVID-19–related neurological problems include headaches, fatigue, cognitive difficulties, stroke, pain, and sleep disorders, Karp noted. Long-haulers, who often had mild or moderate COVID-19 symptoms early in their disease, have reported experiencing “brain fog,” crushing fatigue, and other neurological symptoms for months after they were infected. One goal of the NeuroCOVID Project is to gain insight into how common these problems are; another is to assess these problems among pregnant women and their infants.

US clinicians and clinical sites can submit information about neurological symptoms, comorbidities, disease course, complications, sequelae, and outcomes to the NeuroCOVID Project databank. The databank will be used to assess new neurological COVID-19 complications as well as potential exacerbation of preexisting neurological conditions. In addition, clinicians and clinical sites can submit specimens, such as blood, plasma, cerebrospinal fluid, and tissue, to the project’s biobank. No personally identifying information will be collected or stored.

Scientists studying the prevention, management, and treatment of COVID-19–associated neurological problems will be able to submit requests to use the project’s data and biospecimens.

The NeuroCOVID Project is led by Andrea Troxel, ScD, and Eva Petkova, PhD, who are on the faculty of the NYU Grossman School of Medicine. Information on how to contribute to the project as a clinical partner is available at https://bit.ly/3ceLHVv.

Detecting Heart Transplant Rejection Earlier, More Easily

A blood test performed better than a tissue biopsy—the standard diagnostic tool—in detecting acute heart transplant rejection, National Heart, Lung, and Blood Institute (NHLBI) researchers found in a recent study.

The blood test detected acute rejection, which tends to occur 3 to 6 months after heart transplant surgery, as early as 28 days after transplant surgery and weeks earlier than an endomyocardial biopsy, even before any outward signs are evident.

Heart tissue biopsies are painful, invasive, and they risk damaging the organ.

“[There’s an urgent need for an alternative method to monitor patients for acute heart transplant rejection],” study coauthor Sean Agbor-Enoh, MD, PhD, chief of the NHLBI’s Laboratory of Applied Precision Omics, said in a statement.

He and his coauthors estimated that the blood test could eliminate the need for 81% of biopsies conducted after heart transplants. Their study enrolled 171 people ranging in age from 20 to 70 years who had recently received a heart transplant and monitored them for nearly 18 months on average. About 44% of the participants were Black patients, who tend to have higher transplant rejection rates.

Plasma samples were collected at the same time that an endomyocardial biopsy was performed. The blood test tracks donor-derived cell-free DNA fragments released by injured or dying cells in the donor heart. Higher amounts of the donor DNA indicate a greater risk of rejection.

The donor-derived cell-free DNA blood test offers “a fundamental change in the basic concept of allograft rejection,” the authors concluded. “This work paves the way for clinical utility and mechanistic studies in heart transplantation.”

Locating COVID-19 Monoclonal Antibody Therapies

Physicians and patients in search of outpatient monoclonal antibody therapies for coronavirus disease 2019 (COVID-19) can turn to a recently launched federal government website and enter their zip code.

In November, the Food and Drug Administration authorized emergency use of the monoclonal antibodies for treating patients with mild or moderate COVID-19 who are at high risk of developing more severe disease that requires hospitalization. Clinical trial data as well as anecdotal information from communities suggest that the monoclonal antibodies might prevent the worsening of symptoms and keep patients out of the hospital.

The US Department of Health and Human Services has signed agreements with Regeneron to buy about 300 000 courses of its casirivimab and imdevimab combination treatment and with Eli Lilly and Company to buy about 3 million courses of its bamlanivimab therapy if needed.

Only facilities that are open to the public are listed, so the locator does not include facilities that treat specific groups, such as patients in long-term care, skilled nursing, or psychiatric facilities or prisons.—Rita Rubin, MA

Note: Source references are available through embedded hyperlinks in the article text online.