

Heart transplant successful in young man who survived severe COVID-19

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(HealthDay)—After nearly dying from a severe case of COVID-19, a

young male patient received a successful heart transplant even as he was recuperating from his infection while on a ventilator, a new case study reports.

The transplant was performed on the 31-year-old patient at the Hospital Israelita Albert Einstein in Sao Paulo, Brazil, in May.

It's one of the first cases of its kind in the world and shows that [heart](#) transplants can succeed after severe COVID-19 infection, according to Dr. Eduardo Mocsári, one of the anesthesiologists on the transplant team.

After being diagnosed with [inherited cardiomyopathy](#) a few years ago, the patient had developed [heart failure](#) and was scheduled to receive a new heart. But he tested positive for COVID-19 when he was admitted to the hospital for his transplant, causing it to be postponed.

He developed respiratory failure due to COVID-19 and was put on a respirator. He then developed [cardiogenic shock](#)—a life-threatening condition in which the heart suddenly can't pump enough blood to meet the body's needs—and he was put on [ECMO](#), a machine that replaces the function of the heart and lungs.

Even though the man hadn't completely recovered from COVID-19, his heart continued to worsen and doctors decided that proceeding with his [heart transplant](#) was his best chance of survival.

The transplant was done 42 days after the patient was diagnosed with COVID-19. He tested negative for the coronavirus at the time of his transplant, but still required a ventilator and ECMO. The transplant team members wore full personal protective equipment (PPE) during the five-hour procedure.

The man spent 20 days in [intensive care](#) and left the hospital 66 days after his [heart transplant](#), according to the [case study](#) to be presented online Wednesday at the annual meeting of the European Society of Anaesthesiology and Intensive Care (ESAIC). Research presented at meetings is considered preliminary until published in a peer-reviewed journal.

The patient did develop one complication, necrosis of his toes, which resulted in some of his toes being amputated, and he will have to take immunosuppressant drugs for life to prevent any rejection of his new heart.

Currently, the man is hospitalized due to an abdominal infection but he has responded well to treatment and is on his way to be discharged.

"Heart transplantation after COVID-19 infection is something new and we are still learning about the risks and complications," Mocsári said in a meeting news release.

"In this case, the patient hadn't fully recovered and we were concerned his COVID would worsen. Several studies have indicated that transplant patients are at greater risk of more severe COVID and of dying from the disease," Mocsári noted. "But, as his heart was still deteriorating, we decided that the transplant gave him the best chance of survival."

This case study shows that "despite there being few reports in the literature, heart transplantation in patients who have had severe COVID-19 can have a favorable outcome," Mocsári concluded. "There are situations, where despite all the unknowns, a [transplant](#) is the best option. It is through pushing boundaries like these that discoveries—and medical advances—are made."

More information: The U.S. National Heart, Lung, and Blood

Institute has more on [heart transplants](#).

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