

- Virus

Covid can cause permanent damage to lungs, says study

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Meerut-born Dr Ankit Bharat is the principal investigator of the study published in Science Translational Medicine journal

Meerut: A research by Northwestern Memorial Hospital, Chicago, has found that Covid-19 in some patients can lead to irreversible and permanent lung damage, rendering them irrecoverable, and leaving lung transplantation as the only option for survival. Meerut-born Dr Ankit Bharat, chief of thoracic surgery and surgical director of the lung transplant program at the hospital in Chicago, had also conducted the first lung transplant on a Covid-19 patient in the US in June 2020. Dr. Bharat, who is also the principal investigator of the study published in peer-reviewed Science Translational Medicine journal of the Science Magazine, said organ transplantation may become more frequent for victims of the most severe forms of Covid-19.

“We provided explicit evidence that Covid-19 can cause permanent damage to lungs in some patients for whom lung transplantation is the only hope for survival,” Dr Bharat told TOI.

“The lungs affected by Covid-19 also showed striking similarities to the lungs of patients with a condition called idiopathic pulmonary fibrosis — which causes lung tissue to get thick and stiff, making it difficult for the body to take in oxygen. As in pulmonary fibrosis, we found that Covid-19 led to the recruitment of circulating immune cells called monocytes which are likely recruited to the lung to kill the virus. In a fibrotic lung, these cells also promote the formation of fibrotic scar tissue. These cells can be easily and safely sampled and might also help mark patients who are failing to recover from Covid-19,” explains Scott Budinger, MD, Ernest S. Bazley professor and chief of pulmonary and critical care medicine at Northwestern Medicine, and senior author of the study.

“With about 5.5 million active Covid-19 infections currently in the US and thousands of new cases daily, the need for lung transplantation will grow,” said Dr Bharat. “By using information from our study, we hope more patients can receive lung transplants and that new treatments will be developed to prevent permanent lung damage,” he said. On May 26, surgeons in Austria had performed the world’s first known lung transplant to save the life of a Covid-19 survivor.