- Virus / Cardiovascular diseases

Cardiovascular disease among Long Covid risk

Hindustan Times (Chandigarh) · 9 Feb 2022 · Binayak Dasgupta binayak.dasgupta@htlive.com

NEW DELHI: Covid-19 puts people at a significantly higher risk of cardiovascular disease up to a year after infection and the chances are higher if the disease was more severe, according to an analysis involving the records of over 150,000 people who were infected by the coronavirus in the United States.

The study was based on healthcare databases from the US Department of Veterans Affairs and was published in the journal Nature Medicine on Monday.

The researchers found that beyond the first 30 days of infection, people with Covid-19 had a higher risk of developing cardiovascular issues such as dysrhythmias, inflammatory heart disease, ischemic heart disease, heart failure, and thromboembolic disease.

This added risk meant there was also a raised post-covid cardiovascular disease burden, the researchers said, predicting added health care costs, morbidity and mortality.

"Because of the chronic nature of these conditions, they will likely have long-lasting consequences for patients and health systems and also have broad implications on economic productivity and life expectancy," tweeted Ziyad Al-aly, director of the Clinical Epidemiology Center, at Veterans Affairs St Louis Health Care System. Al-aly is one of the authors of the report.

The study adds to growing understanding of Long Covid manifestations – diseases that stem from a Sars-cov-2 infection and continue manifesting well after a person may have gotten rid of the virus. Other Long Covid conditions have been linked to effects on the brain.

In all, the analysis also included records of 5.6 million people who did not have Covid-19 and the records of 5.8 million others from before the pandemic struck. This helped make more robust comparisons of how cardiovascular diseases differed after Covid-19.

Risk and disease burden

In absolute terms, some of the biggest rise in hazard ratios – or chances of developing a particular disease after Covid-19 – were in incidents of stroke, sinus tachychardia (increased heart rate), myocarditis (inflammation of the heart muscle), acute coronary disease (impeded blood supply to the heart), heart failure, pulmonary embolism (clot in blood vessel) and deep vein thrombosis (clot in deep vein).

These diseases vary in their severity in terms of mitigation, cost of healthcare and mortality risk. To account for this, the researchers also estimated the highest disease burdens. Heart failure, atrial fibrillation (irregular and often very rapid heart rhythm arrhythmia), acute coronary disease, stroke, and sinus tachychardia were found to be contributing the most to the higher disease burden in the one year after Covid-19.

"Governments and health systems around the world should be prepared to deal with the likely significant contribution of the Covid-19 pandemic to a rise in the burden of cardiovascular diseases," said Al-aly in a tweet.

Covid-19 the only trigger The researchers said the higher risks spanned across groups of people. "The risks were evident regardless of age, race, sex and other cardiovascular risk factors, including obesity, hypertension, diabetes, chronic kidney disease and hyperlipidemia," the researchers said in their study.

"They were also evident in people without any cardiovascular disease before exposure to Covid-19, providing evidence that these risks might manifest even in people at low risk of cardiovascular disease," they warned.

They also accounted for some cardiovascular conditions associated (very rarely) with vaccines and found that those with Covid-19 were at significantly greater risk. There were also two other key findings. Being admitted or requiring intensive care raised risks of developing such diseases but these were high to begin with, even in those without hospitalisation.

One of the weaknesses of the study, however, was that the records were predominantly of white, male patients, which could "limit the generalizability of study findings", the researchers said.