Unvaccinated people who recover from Covid-19 at higher risk of heart complications: Study

SINGAPORE - Those unvaccinated against Covid-19 who have contracted the virus and recovered are more likely to face heart complications a year later, according to the findings of a nationwide study.

People in this group have a 56 per cent higher risk of heart complications, such as heart failure, stroke and blood clots (cardiovascular, cerebrovascular and thrombosis), a year after falling sick with Covid-19 compared with uninfected individuals.
Based on tests and medical claim records of 106,012 residents in Singapore diagnosed with Covid-19, the study found that 912 recovered patients had lingering after-effects such as fatigue, shortness of breath, problems with memory and heart complications.

The study found that 311 unvaccinated people who did not suffer from abnormal heartbeat prior to Covid-19 infection developed the condition a year after the infection.

This Covid-19-positive group of over 100,000 residents was compared with nearly 1.7 million in the community who were not known to be infected with the virus during that time, and the two groups were tracked over an average period of 300 days, looking at whether they developed long Covid syndrome and heart complications, in particular.

The study was carried out by Nanyang Technological University’s (NTU) Lee Kong Chian School of Medicine (LKCMedicine), the Ministry of Health, Singapore General Hospital and National Centre for Infectious Diseases between September and November 2021, when the Delta variant was predominant.

It is the first and largest study to examine the risk of long Covid in a highly vaccinated, multi-ethnic South-east Asian population.

The study was published in September in Clinical Infectious Diseases, one of the most heavily cited journals in the fields of infectious diseases and microbiology.

LKCMedicine assistant professor of infectious disease modelling Lim Jue Tao, who was the lead author of the study, said his team was motivated after learning of reports of long Covid syndrome.

“Even though we are now in the post-pandemic period, our findings remain relevant as Covid-19 is here to stay with evolving variants, and we will continue to need to understand its effects and safeguard ourselves.

“Our study underscores the need for people to get vaccinated and boosted as a vital means of protection,” he said.

Singapore is currently going through a Covid-19 infection wave, with estimated daily cases rising from about 1,000 three weeks ago to 2,000 in the past two weeks.

This is driven mostly by two variants, the EG.5 and its sub-lineage HK.3, both of which are descendants of the XBB Omicron variant. Together, they currently account for more than 75 per cent of cases.

Last Friday, Health Minister Ong Ye Kung said protection against severe forms of Covid-19, whether through vaccination or illness as a result of the virus, wanes around the 12-month mark, and that those most at risk must take their annual vaccine shots to avoid getting severely ill.

Commenting as an independent expert, Associate Professor Alex Cook, vice-dean of research at the National University of Singapore’s Saw Swee Hock School of Public Health, said the study is important as it sheds new light on the understudied issue of long Covid in Singapore.

“Although the Covid-19 pandemic may be past, Covid-19 as an illness remains with us, and the NTU-led study re-emphasises the need to stay up to date with your Covid-19 boosters,” he added.

However, the research team behind the study noted that there are limitations to it.

The uninfected group tracked in the analysis includes those who were asymptomatic or did not seek medical care, which may have led to misclassification.

Also, individual health measurements such as blood pressure and body mass index, which are associated with the risk of heart complications, were not considered.

The team will be looking at irritability, memory problems and mood swings, as well as respiratory complications and the effect of long Covid on healthcare utilisation, in its future research.