

- Virus / Brain—diseases

## People with long Covid feared at risk of developing dementia

### Experts also worry about early dementia among those with persistent symptoms after recovery

The Straits Times · 13 Sep 2021 · A9 · Joyce Teo Senior Health Correspondent joyceteo@sph.com.sg

Weeks or months after they recover from Covid-19, some people continue to report poor concentration, memory difficulties and other cognitive issues, which experts fear may put them at risk of dementia years later.

There is also growing concern that some of these “long-haulers” may get the dementia-related changes earlier than expected.

The United Kingdom’s National Institute of Clinical Excellence defines long Covid as having more than four weeks of symptoms after having Covid-19.

The Alzheimer’s Disease International (ADI), a federation of Alzheimer’s associations around the globe, recently said that it had formed a working group of global experts to study the magnitude of the problem and make recommendations on how to deal with it. It warned that the current pandemic could lead to a surge in dementia cases, and called for urgent research to be done on the link between long Covid and dementia.

Anything that diminishes a person’s cognitive reserve and resilience is going to allow neurodegenerative processes to accelerate, said United States-based cognitive disorders neurologist Alireza Atri, who chairs ADI’s 75-member Medical and Scientific Advisory Panel that is leading the research on this link. This can then cause symptoms of neurological disorders, such as dementia, to show earlier.

Dr Atri, who is the director of Banner Sun Health Research Institute, a large research facility on Alzheimer’s disease and other ageing-related disorders in Arizona, told The Straits Times that he has seen some cases where dementia-related changes happened at an unusually fast rate, and these include people who had mild symptoms of Covid-19. More studies will be needed to answer questions, such as whether these symptoms will last or worsen. Dementia is a general term for the impaired ability to remember, think or make decisions that impairs a person’s daily life. It results from diseases such as Alzheimer’s and injuries that affect the brain, and mainly affects people 65 and above.

In Singapore, one in 10 people above the age of 60 suffers from dementia. The syndrome is usually marked by a toxic build-up of proteins in the brain – which can start happening in some people as early as 25 years before they show signs of dementia.

Dr Atri said Covid-19 could aggravate this process and hasten cognitive decline, and then dementia.

“Let’s say I’m in my 50s, and I’m destined to show dementia symptoms in my late 60s, early 70s, and I already have these toxic proteins and some issues going on with it.

“Covid-19 may come in and really fan these flames,” said Dr Atri.

Apart from neurological symptoms associated with Covid-19 like the loss of taste and smell, Dr Atri said those who have long Covid should also be on the lookout for “mental fog, problems with attention and concentration, more effortful mental activities, maybe forgetfulness”. There can also be sleep issues and anxiety.

This is another reason why people should be vaccinated, he said.

In July, a study led by Singapore’s National Centre for Infectious Diseases (NCID) found that one in 10 recovered Covid-19 patients here had persistent symptoms six months after their initial infection.

NCID is currently exploring the long-term neuropsychological and cognitive effects of Covid-19 in people who had mild to severe Covid-19. This study is being done with Nanyang Technological University’s Lee Kong Chian School of Medicine and the National Neuroscience Institute, and results are expected next year.

Dr Barnaby Young, a consultant at NCID, said some Covid-19 patients experience brain fog, fatigue and insomnia, though they “typically recover with time and most people will not have long-term consequences”.

Associate Professor Philip Yap, a senior consultant at Khoo Teck Puat Hospital’s geriatric medicine department, pointed out a recent study published in July in *eClinical Medicine*, which followed up with 3,762 patients from 56 countries.

Seven months after having Covid-19, cognitive dysfunction was revealed to be one of the most common symptoms. This could have been caused by inflammation in the brain, compromised blood flow, especially in small vessels of the brain, and changes in the immune system.

“Given the large number of patients with Covid-19, increased vulnerability of old persons to both Covid-19 and dementia, and observations of cognitive symptoms post-Covid, there is concern that Covid-19 can accelerate cognitive decline and increase the prevalence of cognitive dysfunction and subsequent dementia in the years to come,” said Prof Yap. More research over a longer period of time will hopefully provide more clarity on this, he said.

Dr Young noted that “older and frail adults who have a severe Covid-19 infection may develop a stroke, inflammation of the cerebral blood vessels and other neurological complications” – another reason why it is so important this group is vaccinated.

Prof Yap added: “In Singapore, our aim is to keep the number of infections low – especially among older, vulnerable people – to limit the impact on our population, if any. If we can keep the number of infections low, then hopefully its impact will not be too significant.”