

## Link between silent strokes and pre-dementia: Study

### Preliminary findings highlight need to better manage such conditions to tackle dementia

The Straits Times · 6 Mar 2023 · B5 · Zhaki Abdullah azhaki@sph.com.sg

Preliminary findings from a five-year study here have found that vascular pre-dementia – which can manifest in ways such as slowness of thought and difficulty with planning – resulting from silent strokes is likely to be the most common cognitive disorder here.



Of the 631 participants recruited so far by the Biomarker and Cognitive Impairment Study (Biocis), 344 had mild cognitive impairment, or pre-dementia.

Among these 344, 93 per cent had suffered from some form of silent strokes – or strokes without any noticeable symptoms – which are associated with chronic conditions such as hypertension and diabetes.

Magnetic resonance imaging (MRI) scans, which the participants had to go through, can detect previous silent strokes through the presence of white spots on the brain, indicating damage.

This is likely to be reflective of the broader Singapore population, researchers note.

This points to the need to better manage such conditions so as to address dementia, said Associate Professor Nagaendran Kandiah, director of the Dementia Research Centre (Singapore), or DRCS, which is conducting the ongoing study.

“We want to find the right treatment that can reduce the silent strokes and hence prevent dementia, and then go to the policymakers to say that this treatment should be part of our general guidelines when it comes to dementia,” he added.

Dementia is an umbrella term for neurological conditions that lead to a decline in cognitive function, which include Alzheimer’s disease.

About one in 10 people aged 60 and above in Singapore has dementia, according to a 2015 study by the Institute of Mental Health, with the increasing life expectancy and rapidly ageing population expected to lead to a higher number of those with the condition.

Launched in 2022, the study by DRCS, a centre under the Nanyang Technological University’s Lee Kong Chian School of Medicine, aims to recruit between 1,500 and 2,000 par-

participants here between the ages of 30 and 95.

It wants to uncover what happens to the brain at the earliest stages of cognitive disease in Asians.

Participants undergo MRI scans, neuropsychological assessment and blood sample collection to measure markers in the blood associated with cognition. These help researchers detect early brain changes and determine whether the person is at risk of developing dementia.

The study's findings were announced on Feb 23 during Cognition Awareness Day, an event aimed at allowing the public to learn more about cognitive disorders such as mild cognitive impairment and dementia.

Biocis also found that beta-amyloids – or protein clumps in the brain, which are a risk factor for Alzheimer's disease – were found in just 9.6 per cent of the participants with early signs of dementia, compared with up to 80 per cent in similar studies on Western populations.

The reason for this difference is not yet known, said Prof Kandiah.

While currently about 85 per cent of the study's participants are Chinese, the researchers hope to recruit more minorities to better understand how cognitive disease affects different ethnicities here.

Among the study's participants is Mr Suri Abu, 66, who is taking care of his 83-year-old mother who has dementia.

The retiree, who participated in the study with his wife, said that while his MRI scan showed signs of white spots in his brain, he was able to solve puzzles that were part of the study's assessments.

While Mr Suri believes he has time to make lifestyle adjustments such as volunteering more and becoming more active to stave off the condition, he added that he has spoken to his children about the possibility of him getting dementia.

"It worries me to a certain extent because knowing that my mother is already suffering, I need to prepare myself. If I cannot avoid it, I may be able to delay the process," he said.

Researchers at DRCS are also developing lifestyle intervention programmes aimed at reducing the risk of dementia through cognitive exercises, physical activity and dietary advice.