Four key paths to dementia unlocked

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Researchers have identified four ways of developing dementia, which could change how doctors detect and treat the disease.

In a new study, published in eBioMedicine, a part of The Lancet Discovery Science medical journal, researchers found health issues including psychiatric conditions like depression, brain dysfunction illnesses, mild cognitive impairments with memory loss and heart disease were a factor in more than a quarter of cases.

The American researchers analysed data from more than 24,000 patients in the University of California Health system, and each of these pathways had their own characteristics.

They could also be applied to a specific demographic, which might help doctors detect the disease earlier.

“The mental health cluster, centred on depression, predominantly affected women and Hispanic individuals, consistent with previous findings linking depression to Alzheimer’s disease risk,” researchers wrote.

Lead author Dr Timothy Chang, assistant professor in Neurology at UCLA Health, said: “Recognising these sequential patterns rather than focusing on diagnoses in isolation may help clinicians improve Alzheimer’s disease diagnosis.”

When it came to vascular risks like hypertension, the study suggested this common symptom of heart disease may be linked to development of the disease.

“By unveiling distinct and interconnected routes to Alzheimer’s disease, this approach offers insights that may improve risk assessment, timely diagnosis, and targeted interventions,” the study stated.

Dementia is the second leading cause of death of all Australians and data suggests it could soon be the leading cause of death. It is also the leading cause of death for Australian women.

This year there are an estimated 433,300 Australians living with dementia.

Without a significant intervention, the number of people with dementia is expected to increase to an estimated 812,500 by 2054.

There are an estimated 29,000 people living with younger onset dementia this year, which is expected to increase to an estimated 41,000 people by 2054. This can include people in their 30s, 40s and 50s.

The research concluded early detection strategies, their specific ordering, interactions, and causal relationships were important.

“We found that multi-step trajectories can indicate greater risk factors for Alzheimer’s disease than single conditions,” first author Mingzhou Fu, a medical informatics pre-doctoral student at UCLA, said. “Understanding these pathways could fundamentally change how we approach early detection and prevention.”