EVIDENCE IN THE MAKING

WEIGHING THE VASCULAR BURDEN

Accumulation of Health Problems Heightens Risk of Dementia

Alzheimer’s disease, the most common form of dementia, is defined by the build-up of amyloid protein plaque in the brain. Vascular dementia is linked to lesions in the brain caused by stroke. While the two forms of dementia may take different routes to reduce cognitive function, researchers are finding evidence of a relationship between the two. “Risk factors such as diabetes and hypertension are the same for both diseases,” says Dr. Sylvie Belleville of the University of Montreal. “Some people are unlucky enough to have both diseases, but they may also have a synergetic effect.” With current clinical tools, it’s difficult to diagnose the two forms of dementia properly. Yet proper diagnosis of these conditions, and an improved understanding of how they progress, could be crucial as researchers search for effective treatments for these two distinct diseases.

Research: In a recent study, Dr. Belleville examined whether magnetic resonance imaging (MRI) could help identify the presence of mixed dementia. The study also attempted to characterize the nature and extent of patients’ mental decline. Seventy-five older adults previously diagnosed with mild cognitive impairment (MCI) took part in the study, which shed light on the impact of vascular burden – the strain on the vascular system. By itself, for example, diabetes was not enough to increase the risk of cognitive deficits. However, an additional risk factor, such as anxiety, did elevate risk. “Often, it’s the combination of problems in older people that makes them frail,” says Dr. Belleville. “Similarly, it’s an accumulation of risks that makes a person more susceptible to dementia.” The authors also found that hippocampal atrophy (a brain imaging marker typically associated with Alzheimer’s disease) and white-matter changes (a sign of vascular dementia) were correlated with different types of memory deficits.


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