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## The vascular driving force of Alzheimer's disease

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Izheimer's disease (AD) has been discovered for more than one hundred years. However, its exact pathogenic mechanism is not clearly demonstrated. Amyloid beta (A $\beta$ ), along with tau, are both thought to be hall markers of AD. Nevertheless, they cannot account for pathogenesis of AD solely. For example, PET study shows that amyloid deposition exits not only in AD brains but also in normal aging ones. Furthermore, tentative treatment with secretase inhibitors aiming to stop amyloid deposition or even monoclonal antibodies aiming to capture deposited A $\beta$  all failed clinically. It implies that many other driving forces aside from A $\beta$  and tau exist. It has been shown that midlife vascular health or diseases are closely related to late life AD. In contrast, the evidence that proper control of vascular risk factors could reduce the incidence of AD is still lacking, but can be expected. Furthermore, in AD brains, it is not uncommon to see co-existence of AD and cerebral vascular disease (CVD) pathologies. Some scholars proposed that chronic cerebral hypoperfusion might be another driving force leading to AD. Chronic cerebral hypo perfusion occurs early in the process of AD and accelerates its development. To complicate this more, that acute cerebral ischemia promote AD pathologies has been shown *in vitro* and *in vivo* studies. Clinically, it is not uncommon to see ischemic patients, even sustaining lacunar infarct, develop AD-like dementia many years later. Chronic cerebral hypo perfusion and ischemia are probable driving force leading to AD. Hence, in consideration of future therapy for AD, protection from chronic cerebral hypo perfusion and ischemia could be a new potential avenue worth trial.

## Biography

Ming-Hsiu received his MD Degree at Kaohsiung Medical University, Taiwan and PhD Degree at National Cheng Kung University, Taiwan. He is now the Director of Division of Neurology, Department of Internal Medicine, Chi-Mei Medical Center, Liouying, Taiwan. His major interests are relationship among adiponectin axis, obesity, and ischemic stroke. For caring dementia people, he also pays his attention to the overlap between ischemic stroke and Alzheimer's disease. He has published a couple of papers regarding adiponectin axis and therapeutic trial in cerebral ischemia and clinical stroke care.

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