The genetic studies of dementias in Taiwan

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摘要

Abstract

In Taiwan, Alzheimer's disease (AD) followed by vascular dementia (VsD) is the most common cause of dementia among Taiwanese (ethnic Chinese). Several studies have documented the increase of risk for AD among the apolipoprotein E gene allele 4 (ApoE4) carriers in Taiwanese. It is a consensus that ApoE4 is the most important risk factor for AD at present. The researchers also found that ApoE4 allele frequency is lower in Taiwanese, around 7%, than it in the most Caucasian populations. This phenomenon raises the hypothesis that low ApoE4 allele frequency contributes to low prevalence of AD in Taiwanese. Besides, many genetic studies were involved in genetic impacts on modulation or regulation of the manifestation, progression, and treatment response of AD. But, these genetic studies are still inconclusive. Few familial AD attributed to PS1 gene mutation has been identified. The genetic studies of VsD are just beginning and NOTCH3 gene mutation has been detected in Taiwanese cerebral autosomal dominant arteriopathy with subcortical infarct and leukoencephalopathy (CADASIL) families. Since there is a large proportion of non- ApoE4-associated AD in Taiwanese, it remains more researches to look for novel genetic factors in Taiwanese. Based on the Japanese experience of studies, the association between the polymorphisms of ApoE and familial AD, sporadic early-onset AD respectively warrants further investigation.