

Is herpes virus infection a risk factor for AD? Con

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Herpes viruses are a family of double stranded DNA viruses capable of establishing latent infection in their host. From latency they may reactivate to cause recurrent disease. There are three herpes viruses (herpes simplex virus type 1 & 2, HSV 1 & 2 and varicella zoster virus, VZV) that establish latent infection in human peripheral sensory ganglia and may cause acute PNS and CNS disease. Alzheimer's disease (AD) is the leading cause of dementia, but despite extensive research the etiology of the sporadic form of the disorder and the pathogenesis of both the genetic and the sporadic conditions is elusive. Based on clinical, pathological and molecular grounds it was hypothesized that AD may be triggered by herpes virus infection. A recent study (Neuron. 2018 ;99:64-82) reported identification of increased human herpesvirus 6 & 7 nucleic acids, proteins and histopathological in brains of patients dying with AD. However, based on theoretical ground, the possibility that the disorder is due to chronic infection seems unlikely as the 4 criteria (Koch postulates) required to establish the causative role of a microbe in AD were not demonstrated. Moreover, the likelihood that an infection will trigger an immunological cascade culminating in neuro degeneration has also been refuted. as none of the five (or nine) requirements required to declare a condition immune mediated has been met.