

Sleep disorders associated with Alzheimer's disease: A perspective

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Sleep disturbances, as well as sleep-wake rhythm disturbances, are typical symptoms of Alzheimer's disease (AD) that may precede the other clinical signs of this neurodegenerative disease. Here, we describe clinical features of sleep disorders in AD and the relation between sleep disorders and both cognitive impairment and poor prognosis of the disease. There are difficulties of the diagnosis of sleep disorders based on sleep questionnaires, polysomnography or actigraphy in the AD patients. Typical disturbances of the neurophysiological sleep architecture in the course of the AD include deep sleep and paradoxical sleep deprivation. Among sleep disorders occurring in patients with AD, the most frequent disorders are sleep breathing disorders and restless legs syndrome. Sleep disorders may influence circadian fluctuations of the concentrations of amyloid- β in the interstitial brain fluid and in the cerebrovascular fluid related to the glymphatic brain system and production of the amyloid- β . There is accumulating evidence suggesting that disordered sleep contributes to cognitive decline and the development of AD pathology. In this mini-review, we highlight and discuss the association between sleep disorders and AD. © 2018 Brzecka, Leszek, Ashraf, Ejma, ávila-Rodríguez, Yarla, Tarasov, Chubarev, Samsonova, Barreto and Aliev.

AD

Diagnosis

Disturbance

Sleep disorders

Sleep-rhythm

amyloid beta protein

actimetry

Alzheimer disease

brain interstitial fluid

circadian rhythm sleep disorder

clinical feature

cognitive defect

degenerative disease

disease association

human

neurophysiology

polysomnography

prognosis

questionnaire

REM sleep

restless legs syndrome

Short Survey

sleep deprivation

sleep disorder

sleep disordered breathing

sleep pattern

sleep time

sleep waking cycle