

عنوان مقاله:

A Review of Electroencephalography (EEG) Analysis in Alzheimer's disease, Vascular Dementia and Mild Cognitive Impairment

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نویسندگان:

زهرا امین فلاح - نویسنده مسئول

سیما اسداللهی - نویسنده دوم

حسین قاسمی - نویسنده سوم

شادی حاجی زمانی - نویسنده چهارم

خلاصه مقاله:

Electroencephalography (EEG) is a non-invasive technique that measures the electrical activity of the brain. EEG has been used to study the changes in brain function and connectivity in various types of dementia, such as Alzheimer's disease (AD), vascular dementia (VaD), and mild cognitive impairment (MCI). This review aims to summarize the main findings of EEG analysis in these conditions, focusing on the spectral, temporal, spatial, and network features of EEG signals. We also discuss the potential applications of EEG as a diagnostic and prognostic tool, as well as the limitations and challenges of EEG research in dementia. EEG Can be accurate of ۸۳.۹%-۹۶.۸% for MCI and ۷۱.۹%-۹۶.۹% for AD and ۸۷.۹%-۹۰.۹% for VaD be effective in early diagnosis. We conclude that EEG is a valuable method to explore the neurophysiological mechanisms of cognitive decline and impairment, and to identify biomarkers and predictors of dementia progression. However, further studies are needed to improve the standardization, reliability, and validity of EEG methods and results, and to integrate EEG with other modalities of brain imaging and assessment.

کلمات کلیدی:

Electroencephalography (EEG), Alzheimer's disease, Vascular Dementia, Brain, Dementia, Mild Cognitive Impairment

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