

HUBUNGAN PENINGKATAN POWER GELOMBANG LAMBAT PADA QEEG DAN FUNGSI KOGNITIF PADA PASIEN DEMENSIA ALZHEIMER DI RSUP DR SARDJITO YOGYAKARTA

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INTISARI

Demensia Alzheimer menduduki peringkat ke-6 sebagai penyebab kematian tertinggi di Amerika Serikat sepanjang tahun 2015-2019 dan peringkat ke-7 pada tahun 2020. Demensia Alzheimer menyebabkan gangguan kognitif hingga penurunan kualitas hidup yang disebabkan terutama karena kesulitan dalam melakukan pekerjaan sehari-hari, sehingga hal tersebut menyebabkan diperlukannya biaya yang mahal untuk perawatan serta bertambahnya beban keluarga dan negara. EEG kuantitatif (qEEG) sebagai biomarker diagnostik telah banyak berkembang, namun masih sedikit praktisi yang menggunakannya dalam membantu diagnosis Demensia Alzheimer. Metode penelitian ini menggunakan analisis data sekunder EEG pada pasien demensia Alzheimer dari poliklinik Elektromedik RSUP Dr Sardjito dengan pendekatan *Cross Sectional*. Studi analitik dilakukan dengan melihat parameter qEEG sebagai variabel tergantung dengan status kognitif yang dinilai dengan MoCA-INA pada pasien demensia Alzheimer sebagai variabel bebas. Penelitian dilakukan di RSUP dr. Sardjito di Yogyakarta pada bulan Oktober 2020 sampai dengan bulan juni 2022. Hasil penelitian terdapat korelasi negatif antara nilai MOCA-Ina terhadap parameter qEEG (*Absolute Power* delta dan *Relative Power* delta) pada pasien demensia Alzheimer.

Kata Kunci : Power Gelombang Lambat qEEG, Fungsi Kognitif, Demensia Alzheimer

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THE ASSOCIATION BETWEEN INCREASED SLOW WAVE POWER ON QEEG AND COGNITIVE FUNCTION IN ALZHEIMER DEMENTIA PATIENTS AT DR SARDJITO HOSPITAL, YOGYAKARTA

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ABSTRACT

Alzheimer's dementia is ranked 6th as the highest cause of death in the United States during 2015-2019 and ranked 7th in 2020.

Alzheimer's dementia is associated with cognitive impairment, leading to a decline in overall quality of life. This decline is mostly attributed to challenges in performing daily tasks, resulting in increased financial burdens for treatment and heightened strain on both families and the government. The utilization of quantitative electroencephalography (qEEG) as a diagnostic biomarker has seen significant advancements; nonetheless, its application in supporting the diagnosis of Alzheimer's dementia remains limited among practitioners. The present study employs a cross-sectional approach to analyze secondary EEG data in patients with Alzheimer's dementia obtained from the Electromedical Polyclinic of Dr Sardjito Hospital. A research investigation was conducted to examine the relationship between the parameters of qEEG, serving as the dependent variable, and the cognitive status measured by MoCA-INA, serving as the independent variable, in patients with Alzheimer's disease. The study was carried out at Dr Sardjito in Yogyakarta, Indonesia, spanning from October 2020 to June 2022. The findings of the study revealed a significant inverse relationship between the MOCA-Ina value and the qEEG parameters, specifically the absolute power delta and relative power delta, among individuals diagnosed with Alzheimer's dementia.

Kata Kunci : Slow Wave Power qEEG, Cognitive Function, Alzheimer's Dementia

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