

LEUKOARAIOSIS SEBAGAI PREDIKTOR PERBURUKAN FUNGSI KOGNITIF PADA PASIEN DEMENSI VASKULAR DI RSUP DR SARDJITO

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ABSTRAK

Latar belakang: Prevalensi Demensia Vaskular terus meningkat dengan hasil MRI kepala banyak ditemukan Leukoaraiosis. Pemeriksaan total tau dan beta amiloid dari cairan serebrospinal merupakan biomarker perburukan fungsi kognitif, namun biayanya mahal, invasif dan membutuhkan rawat inap. Leukoaraiosis diduga memiliki efek terhadap gangguan kognitif walaupun hubungan antara keduanya masih kontroversi.

Metode: Penelitian kohort retrospektif dengan pengambilan data rekam medis pasien yang terdiagnosis Demensia Vaskular dari poli memori RSUP Dr. Sardjito tahun 2018 sampai 2023. Tujuan penelitian ini adalah untuk mengetahui hubungan derajat leukoaraiosis terhadap fungsi kognitif pada pasien Demensia Vaskular. Terdapat 65 subjek yang memenuhi kriteria inklusi dan eksklusi. Pemeriksaan fungsi kognitif dilakukan saat awal dan kontrol berikutnya setelah dilakukan pemeriksaan MRI kepala. Analisis data dilakukan menggunakan uji statistik deskriptif dan regresi linier berganda dengan spss versi 27.

Hasil: Rerata usia subjek adalah 67.62 ± 10.11 tahun. Hasil MRI kepala didominasi Leukoaraiosis fazekas 1 (43.08%) dengan rerata durasi *follow-up* 14.18 ± 9.27 bulan. Hasil analisis multivariat derajat Leukoaraiosis berpengaruh signifikan terhadap Δ MoCA-INA ($p < 0.05$) dengan koefisien regresi -1.853. Setiap penambahan 1 derajat Leukoaraiosis menurunkan Δ MoCA-INA sebesar 1.853.

Kesimpulan: Hasil studi ini menunjukkan bahwa terdapat hubungan antara derajat Leukoaraiosis dengan penurunan fungsi kognitif pada pasien Demensia Vaskular di RSUP Dr Sardjito Yogyakarta.

Kata Kunci: *demensia vaskular, leukoaraiosis, perburukan fungsi kognitif*

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LEUKOARAIOSIS AS PREDICTOR OF COGNITIVE DECLINE IN VASCULAR DEMENTIA AT DR SARDJITO HOSPITAL

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ABSTRACT

Background: The prevalence of Vascular Dementia increased and most of patients were found Leukoaraiosis in MRI. Cerebrospinal fluid total tau and amyloid beta are used as biomarker of cognitive decline but they are expensive, invasive and requires hospitalization. Leukoaraiosis is suspected to have an effect on cognitive decline, although their association remains controversial.

Method: A retrospective cohort study was conducted using medical records of patients diagnosed with Vascular Dementia from the memory clinic at Dr. Sardjito General Hospital from 2018 until 2023. The aim of this study is to determine the association between Leukoaraiosis and cognitive decline in Vascular Dementia. A total of 65 subjects met the inclusion and exclusion criteria. Cognitive function assessments were performed at the initial visit and at the next follow-up after brain MRI examinations. Data analysis was conducted using descriptive statistics and multiple linear regression tests with SPSS version 27.

Results: The mean age of the subjects was 67.62 ± 10.11 years. Brain MRI results were predominantly Leukoaraiosis Fazekas grade 1 (43.08%), with an average follow-up duration of 14.18 ± 9.27 months. Multivariate analysis showed that the degree of Leukoaraiosis had a significant effect on Δ MoCA-INA ($p < 0.05$) with a regression coefficient of -1.853. Each increase of 1 degree of Leukoaraiosis decreased Δ MoCA-INA by 1.853.

Conclusion: The results of this study indicate that there is an association between Leukoaraiosis and cognitive decline in Vascular Dementia patients at Dr. Sardjito General Hospital, Yogyakarta.

Keywords: *vacular dementia, leukoaraiosis, cognitive decline*

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