

## HUBUNGAN KADAR VITAMIN D DENGAN DERAJAT GANGGUAN KOGNITIF PADA DEMENSIA DI RSUP DR. SARDJITO YOGYAKARTA

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### ABSTRAK

**Latar belakang :** Di Indonesia, jumlah penderita demensia diperkirakan mencapai 1,2 juta pada 2016 dan diprediksi meningkat menjadi 4 juta pada 2050. Vitamin D berperan penting dalam pencegahan demensia, terutama pada penyakit Alzheimer yang mencakup 70-80% kasus. Kekurangan vitamin D yang parah meningkatkan risiko demensia sebesar 54%. Beberapa studi menunjukkan bahwa suplementasi vitamin D berpotensi menunda progresi gangguan kognitif dan meningkatkan survival rate pada pasien demensia.

**Tujuan :** Mengetahui hubungan kadar Vitamin D dengan derajat gangguan kognitif.

**Metode:** Penelitian dilakukan menggunakan data pada rekam medik, hasil laboratorium pasien, dan hasil tes MoCA-Ina yang telah terdiagnosis demensia di RSUP Dr. Sardjito Yogyakarta. Kadar vitamin D dan Gangguan Kognitif didapatkan dari hasil pemeriksaan darah Vitamin D-25-OH dan tes MoCA-Ina yang dilakukan saat kedatangan ke poli saraf dan poli memori. Analisis data yang digunakan adalah analisis korelasi spearman dan analisa bivariat.

**Hasil:** Hasil yang didapatkan bahwa dari uji korelasi Spearman didapatkan bahwa terdapat hubungan yang signifikan antara kurangnya vitamin D dengan terjadinya gangguan kognitif pada pasien Demensia. Hal ini ditunjukkan dengan nilai  $p < 0,05$ . Korelasi antara ditunjukkan dengan nilai  $r = 0,262$ . Nilai  $r$  yang positif memberikan bahwa semakin besar defisiensi vitamin D maka semakin buruk pula derajat gangguan kognitif yang diderita pada pasien demensia.

**Kesimpulan:** Dari penelitian didapatkan hubungan antara kadar vitamin D dengan derajat gangguan kognitif pada pasien demensia. Semakin besar defisiensi kadar vitamin D maka semakin berat derajat gangguan kognitif pada pasien demensia.

**Kata kunci:** Vitamin D, Demensia, Gangguan Kognitif, MoCA-Ina

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## CORRELATION VITAMIN D LEVELS WITH DEGREE OF COGNITIVE IMPAIRMENT IN DEMENTIA AT DR. SARDJITO HOSPITAL YOGYAKARTA

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### ABSTRACT

**Background:** In Indonesia, the number of people with dementia was estimated at 1.2 million in 2016 and is predicted to increase to 4 million by 2050. Vitamin D plays an important role in the prevention of dementia, especially in Alzheimer's disease which accounts for 70-80% of cases. Severe vitamin D deficiency increases the risk of dementia by 54%. Several studies have shown that vitamin D supplementation has the potential to delay the progression of cognitive impairment and improve survival rates in dementia patients.

**Objective :** This study aimed to find association between vitamin D levels and degree of cognitive impairment.

**Methods:** The study was conducted using data on medical records, patient laboratory results, and MoCA-Ina test results that have been diagnosed with dementia at Dr Sardjito Hospital Yogyakarta. Vitamin D levels and Cognitive Impairment were obtained from the results of the Vitamin D-25-OH blood test and the MoCA-Ina test which was carried out upon arrival to the neurology clinic and the memory clinic. The data analysis used was Spearman correlation analysis and bivariate analysis.

**Results:** The results showed that the Spearman correlation test showed that there was a significant relationship between vitamin D deficiency and the occurrence of cognitive impairment in patients with dementia. This is indicated by a p value <0.05. The correlation between is shown with a value of  $r = 0.262$ . The positive r value provides that the more vitamin D deficiency eats the worse the degree of cognitive impairment suffered in dementia patients.

**Conclusion:** The study found that there was a relationship between vitamin D levels and degree of cognitive impairment in dementia patients. The greater deficiency vitamin D levels, the more severe the degree of cognitive impairment in dementia patients

**Keywords:** Vitamin D, Dementia, Cognitive Impairment, MoCA-Ina

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