

# Korelasi antara kadar vitamin E serum dan aktivitas superoksida dismutase eritrosit pada penderita HIV/AIDS di RSUPN DR. Cipto Mangunkusumo Jakarta = Correlation between serum level of vitamin E and erythrocyte superoxide dismutase activity in HIV/AIDS outpatients at RSUPNCM Jakarta

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## Abstrak

**Tujuan:** Penelitian ini adalah studi potong lintang untuk mengetahui hubungan antara kadar vitamin E serum dan aktivitas superoxide dismutase (SOD) eritrosit pada penderita HIV/AIDS.

**Bahan dan cara:** Pengumpulan data dilakukan pada pasien rawat jalan di klinik Pokdisus, RSUPNCM Jakarta selama akhir Februari 2013 sampai bulan Maret 2013. Subyek diperoleh dengan metode consecutive sampling. Sebanyak 52 subjek memenuhi kriteria penelitian. Data dikumpulkan melalui wawancara, rekam medis, dan pengukuran antropometri untuk menilai status gizi, dan pemeriksaan laboratorium yaitu kadar vitamin E serum dan aktivitas SOD eritrosit.

**Hasil:** Sebagian besar subjek adalah laki-laki (51,9%), usia rata-rata adalah  $34 \pm 4,84$  tahun. Malnutrisi terjadi pada 55,8% dari subyek dan semua subyek (100%) memiliki asupan vitamin E yang kurang dari Angka Kecukupan Gizi (AKG) Indonesia. Dalam penelitian ini, sebagian besar subjek telah mendapatkan terapi ARV (94,2%). Jumlah CD4  $<200$  sel/uL ditemukan pada 17 subyek (32,7%). Kadar vitamin E serum yang rendah didapat pada semua subyek (100%) dengan nilai rata-rata kadar vitamin E serum  $3,84 (1,77-7,32)$  umol / L, sementara aktivitas SOD eritrosit yang cukup ditemukan pada 53,8% dari subyek dengan nilai rata-rata  $1542,1 \pm 281,04$  U / g Hb.

**Kesimpulan:** Tidak ada hubungan yang signifikan antara kadar serum vitamin E dan aktivitas SOD ditemukan dalam penelitian ini. ( $R = 0,047$ ,  $p = 0,742$ ).

.....Objective: The aim of this cross sectional study was to find a correlation between serum level of vitamin E and erythrocyte superoxide dismutase (SOD) activity in HIV/AIDS patients.

Material and method: Data collection was conducted at Pokdisus outpatient clinic, RSUPNCM Jakarta, from late February 2013 to March 2013. Subjects were obtained with the consecutive sampling method. A total of 52 subjects had met the study criteria. Data were collected through interviews, medical records, and anthropometry measurements to assess the nutritional status, and through laboratory examination (i.e. serum level of vitamin E and erythrocyte SOD activity).

Results: The majority of the subjects were male (51,9%) with a mean age of  $34 \pm 4.84$  years. Malnutrition occurred in 55.8% of the subjects and all subjects (100%) had vitamin E intake that is less than the Indonesian recommended dietary allowance (RDA). In this study, most subjects had already been on ARV therapy (94.2%). Low CD4 cell count was found in 17 subjects (32.7%). Vitamin E deficiency was found in all subjects (100%) with a median value of serum level of vitamin E of  $3.84 (1.77 \text{ to } 7.32)$  mol / L, while normal SOD activity was found in 53.8% of the subjects with a mean value of  $1,542.1 \pm 281.04$  U / g Hb.

Conclusion: No significant correlation between serum level of vitamin E and SOD activity was found in this study ( $r = 0.047$ ,  $p = 0.742$ ).