

Korelasi Antara Kadar Beta Karoten dan Kadar Superoxide Dismutase Penderita HIV/AIDS di RSUPN dr. Cipto Mangunkusumo =
Correlation Between Beta-carotene and Superoxide Dismutase Levels in HIV/AIDS Patients at National Central Hospital dr. Cipto Mangunkusumo

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Abstrak

Infeksi HIV menghasilkan radikal bebas yang merusak sel dan berbagai organ tubuh. Antioksidan berperan penting untuk mengatasi kerusakan akibat radikal bebas. Penelitian dengan desain potong lintang ini merupakan bagian dari penelitian bersama untuk mengetahui korelasi kadar antioksidan (beta karoten, vitamin C, E dan seng) dengan kadar SOD pada penderita HIV/AIDS di Pokdisus AIDS FKUI/RSUPNCM, Jakarta. Pengumpulan data dilakukan sejak akhir bulan Februari 2013 sampai Maret 2013 dengan metode consecutive sampling, didapatkan 52 orang subyek memenuhi kriteria penelitian. Hasil penelitian menunjukkan median usia subyek 33 (24-40) tahun dengan 51,9% laki-laki. Sebanyak 94,2% subyek mendapatkan terapi anti retrovirus. Nilai median jumlah limfosit T CD4+ adalah 245 (50-861) sel/ μ L dan 63,5% subyek berada pada kelompok CDC II. Status gizi 84,6% subyek normal dan lebih dengan nilai median 21,4 (14,4-32,4) kg/m². Nilai rerata asupan energi subyek 1850,8 \pm 454,6 kkal/hari, 76,9% subyek memiliki asupan energi kurang dari kebutuhan total harian. Nilai Median asupan lemak subyek 51,4 (22-129,4) gram/hari dan 63,5% subyek memiliki asupan lemak kurang dari energi total. Semua subyek memiliki asupan serat yang kurang dari angka kecukupan serat, nilai rerata asupan serat subyek adalah 8,6 \pm 3,6 gram. Nilai rerata asupan beta karoten subyek 10,92 \pm 4,37 mg/hari, 88,5% memiliki asupan beta karoten cukup. Nilai median kadar beta karoten subyek 0,21 (0,01-0,72) μ mol/L dan 76,9% subyek memiliki kadar beta karoten rendah. Rerata kadar SOD subyek sebesar 1542,1 \pm 281 U/gHb dan 53,8% subyek memiliki kadar SOD normal. Tidak didapatkan korelasi bermakna antara kadar beta karoten dengan SOD pada penderita HIV/AIDS ($r=-0,174$, $p=0,217$).

.....Free radicals formed on the course of HIV infection can cause cellular and multiple organ damage. Antioxidants play an important role to minimize damage caused by these free radicals. This research is done using cross sectional design and is part of a joint study to assess the correlation between antioxidants (beta-carotene, vitamin C, E, and zinc) and SOD levels in HIV/AIDS patients at Pokdisus AIDS FKUI/RSUPNCM, Jakarta. The study is done from late February 2013 to March 2013 using consecutive sampling method, 52 subjects matched the study's criteria. Study shows the age median value is 33 (24-40) years old, with 51.9% male. As much as 94.2% subjects were receiving anti retroviral therapy. Median value of CD4+ T lymphocyte count is 245 (50-861) cell/ μ L, 63.5% subjects belong in the CDC II category. Nutritional status for 84.6% subjects was normal and overweight with median value of 21.4 (14.4-32.4) kg/m². Mean score for energy intake is 1850.8 \pm 454.6 kcal/day and as much as 76.9% subjects have energy intake less than total daily requirement. Median value of fat intake is 51.4 (22-129.4) grams/day and 63.5% subjects have fat intake less than total energy. All subjects were found to have fiber intake less than individual fiber requirement with mean score of 8.6 \pm 3.6 grams. Subjects' mean score for beta-carotene is 10.92 \pm 4.37 mg/day and 88.5% of the subjects have adequate beta-carotene intake. Median value of beta-

carotene level is 0.21 (0.01-0.72) $\mu\text{mol/L}$ and 76.9% subjects have low beta-carotene level. SOD level mean score is 1542.1 ± 281 U/gHb, 53.8% subjects had normal SOD level. This study found no significant correlation between beta-carotene and SOD levels in HIV/AIDS patients ($r = -0.174$, $p = 0.217$).