Universitas Indonesia Library >> UI - Tesis Membership

Hubungan Asupan Zink dan Aktivitas Superoksida Dismutase dengan Fungsi Kognitif pada Usia Lanjut di Panti Jompo DKI Jakarta = The Correlation Between Zinc Intake and Superoxide Dismutase Activity with Cognitive Function at Elderly in Nursing Home DKI Jakarta

Rima Khuzaimah, author

Deskripsi Lengkap: https://lib.ui.ac.id/detail?id=9999920566338&lokasi=lokal

---

Abstrak

Prevalensi usia lanjut di seluruh dunia yang mengalami gangguan fungsi kognitif semakin meningkat. Salah satu penyebab gangguan fungsi kognitif dikaitkan dengan defisiensi zink dan kekurangan superoksida dismutase (SOD) yang berkontribusi terhadap beberapa penyakit neurologis dan gangguan kognitif. Tujuan penelitian ini yaitu untuk menganalisis hubungan antara asupan zink dan aktivitas superoksida dismutase dengan fungsi kognitif pada usia lanjut di panti jompo DKI Jakarta. Penelitian ini menggunakan analisis cross-sectional yang dilaksanakan di Panti Sosial Tresna Wreda Budi Mulia 1, Jakarta. Populasi dalam penelitian ini adalah usia lanjut laki-laki dan perempuan dengan jumlah sampel 85 responden. Asupan zink dianalisis dengan menggunakan metode Semi Quantitative Food Frequency Questionnaire (SQ-FFQ), superoksida dismutase diukur dengan pemeriksaan darah vena menggunakan Spectrophotometer. Penilaian fungsi kognitif menggunakan Montreal Cognitive Assessment Indonesia (MOCA-Ina). Analisis data dengan uji bivariat dan uji multivariat regresi linear, dianggap bermakna bila nilai p < 0,05. Terdapat 85 subjek, karakteristik subjek dengan usia median 69 tahun, 61,2% berjenis kelamin perempuan dan 38,8% laki-laki, tingkat pendidikan dasar paling banyak dengan persentase 72,9%, subjek lebih banyak mempunyai penyakit kronis sebesar 87,1%, rerata aktivitas fisik 75,4, rerata indeks massa tubuh 21,8 kg/m2, asupan kalori total dengan nilai median 1927,8 kkal/hari. Median asupan zink 7,6 mg/hari, median SOD 13,1 U/ml, dan nilai rata-rata fungsi kognitif 15,6. Tidak ada korelasi antara asupan zink dengan fungsi kognitif. Terdapat korelasi bermakna (p = 0.006, r = 0.296) antara SOD dengan fungsi kognitif. Analisis multivariat menunjukkan 15,9% jenis kelamin, pendidikan dan SOD berpengaruh terhadap fungsi kognitif. Hasil penelitian menunjukkan bahwa tidak ada korelasi bermakna antara asupan zink dengan fungsi kognitif. Terdapat korelasi bermakna antara superoksida dismutase dengan fungsi kognitif.

.....The prevalence of elderly individuals worldwide with impaired cognitive function is increasing. Among the factors contributing to cognitive impairment are deficiencies in zinc and superoxide dismutase (SOD), both of which are associated with several neurological diseases and cognitive decline. The purpose of this study was to analyze the correlation between zinc intake and SOD activity with cognitive function in the elderly. This cross-sectional study was conducted at Panti Sosial Tresna Wredha Budi Mulia 1 in Jakarta, Indonesia. The population included elderly men and women with a sample size of 85 respondents. Zinc intake was assessed using the Semi Quantitative Food Frequency Questionnaire (SQ-FFQ), while plasma SOD was measured by Spectrophotometer. Cognitive function was assessed using the Montreal Cognitive Assessment Indonesia (MOCA-Ina). Data were analyzed using bivariate testing and multivariate linear regression, with significance set at p < 0.05. This study included 85 subjects with a median age of 69 years, 61.2 % were female and 38.8 % male. The majority (72.9%) had primary-level education, and 87.1% had chronic diseases. The average physical activity score was 75.4, the mean body mass index (BMI) was 21.8 kg/m2, and the median daily calorie intake was 1927.8 kcal/day. The median daily zinc intake was 7.6

mg/day, the median SOD was 13.1 U/ml, and the average cognitive function was 15.6. No correlation was found between zinc intake and cognitive function. However, significant correlation ($p = 0.006$, $r = 0.296$) was observed between SOD and cognitive function, with multivariate analysis indicating that sex, education and SOD accounted for 15,9% of the variance in cognitive function. The finding revealed no significant correlation between zinc intake and cognitive function. However, SOD were significantly correlated with cognitive function in the elderly.