Korelasi antara kadar likopen serum dengan fungsi paru pada penderita penyakit paru obstruktif kronik = Serum lycopene level and its correlation with lung function among chronic obstructive pulmonary disease patients

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Abstrak

Penyakit Paru Obstruktif Kronik PPOK merupakan penyakit dengan penurunan fungsi paru, yang melibatkan stres oksidatif pada patogenesisnya. Likopen diketahui merupakan salah satu karotenoid utama pada jaringan paru dengan aktivitas antioksidan sangat kuat. Penelitian potong lintang ini dilakukan di RSUP Persahabatan, Jakarta Timur, melibatkan 47 subjek dengan tujuan mengetahui korelasi antara kadar likopen serum dengan fungsi paru pada penderita PPOK. Karakteristik subjek dan asupan likopen didapatkan melalui wawancara menggunakan food frequency questionairre FFQ semi-kuantitatif. Kategori diagnosis PPOK didapatkan dari rekam medis atau wawancara. Status gizi ditentukan berdasarkan Indeks Masa Tubuh IMT , fungsi paru ditentukan menggunakan spirometri, dan kadar likopen serum diukur dengan High Performance Liquid Chromatography HPLC . Semua subjek laki-laki, terbanyak berusia ge;60 tahun, hampir separuh bekas perokok berat, 51 berstatus gizi normal. Asupan likopen 4.407 256 ndash;18.331 mg/hari, lebih rendah daripada asupan orang sehat. Kadar likopen serum 0,57 0,25 mmol/L, setara dengan orang sehat. Terdapat korelasi positif p=0,001; r=0,464 antara kadar likopen serum dengan VEP1/KVP, namun tidak terdapat korelasi kadar likopen serum dengan VEP1/Prediksi dan KVP/Prediksi.
.....Chronic Obstructive Pulmonary Disease COPD is a disease with decreasing pulmonary function, involving oxidative stres on its pathogenesis. Lycopene is one of the main carotenoids in lungs, with very potent antioxidant property. This cross sectional study was conducted at Persahabatan Hospital Jakarta, involving 47 subjects, aiming to investigate the correlation between serum lycopene level and lung function in COPD subjects. Interview was used to assess subjects rsquo characteristics and lycopene intake using semi quantitative food frequency questionnaire FFQ . COPD grouping was gathered from medical records or interview. Body mass index BMI was used to determine nutritional status, lung function test conducted by spirometry, while lycopene serum level was assessed using High Performance Liquid Chromatography HPLC method. All subjects were male, majority ge 60 years old, almost half ex heavy smokers, about 51 were in normal nutritional status. Lycopene intake was 4,407 256 ndash 18,331 mg day, lower compared to healthy subjects rsquo . Serum lycopene level was 0.57 0.25mmol L, similar to normal level in healthy individuals. There was a correlation p 0.001 r 0.464 between serum lycopene level and FEV1 FVC, but no correlations between serum lycopene level and FEV1 , neither was FVC .