Pengaruh Suplementasi Oral Vitamin C dan E terhadap Kadar Malondialdehida Plasma Perokok Kretek Filter di Jakarta = Effects of Vitamin C and E Suplementation on Plasma Malondialdehyde in Clove Cigarettes Smokers in Jakarta

Emilia Slamat, author

Abstrak

Mengelahui efek pemberian suplementasi vitamin C dan E terhadap kadar malondialdehida plasma pada perokok kretek filter selama empat minggu di Jakarta. Penelitian ini merupakan uji klinis paralel, acalg tersamar tunggal antara kelompok yang inendapat suplementasi vitamin C dan E (P) dengan kelompok yang mendapat plasebo (K). Sebanyak 40 orang perokok kretek filterr di rumah makan, Jakarta Utara memenuhi ln-iteria dan diikutkan dalam penelitian Dilakukan randomisasi blolc untuk menentukan kclompok perlakuan dan kontrol. Kelompok perlakuan mendapatkan suplementasi vitamin C 500 mg dan E 400 IU/hari selama empat minggu, dan kclompok kontrol mendapat plasebo. Data yang dikumpulkan meliputi data demograti (usia, konsumsi rokok, indeks Brinkman, tekanan dan lg kadar glukosa darah puasa, kadar kolesterol tétal), IMT, analisis asupan zat gizi, kadar malondialdehida plasma. Analisis data menggunakan uji t tidak berpasangan atau uji Mann Whimsy dengan batas kemaknaan p <0,05.
Karakteristik demografi subyek pada awal penelitian meliputi usia, konsumsi rokok, indeks Brinkman, tel-canan damh, Radar glukosa darah puasa, kadar kolesterol total, IMT , analisis asupan zat gizi, kadar malondialdchida plasma antara kelompok perlakuan dan kontrol homogen. Rerata kadar MDA plasma awal pada kelompok perlakuan dan pada kelompok kontrol 1,39i0,19 vs 1,34=b=0,09 nmol/mL. Pada akhir perlakuan, rerata kadar MDA plasma sabesar 1,18=l=0,22 pada kelompok perlakuan dan 1,3 1=k0,13 nmol/mL kelompok kontrol, berbeda bermakna (p <0,03‘7).
Setelah suplementasi vitamin C 500 mg dan E 400 IU/hari selama empat minggu tcrdapat perbedaan bermakna renta kadar MDA plasma antara kedua kelompok.
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Abstract
To investigate the effects of vitamin C and E supplementation on plasma malondialdehycle in clove cigarettes smokers during four weeks in Jakarta
This is a parallel randomized single-blind clinical study between interventional group with vitamin C and E supplementation (P) and control group with has placebo (K). Forty clove cigarettes smokers in Rmtaurant, Jakarta had fulfilled the criteria and recruited in the research. Subjects were allocated by block randomization into intervention and control group. Intervention group treated with vitamin C 500 mg and vitamin E 400 IU daily for 4 weeks, while control group treated with placebo. Data collection includes demographic characteristic

(age, smoking habits, Brinkman index, blood pressure, blood glucose, total cholesterol), body mass index (BMI), daily nutrient analysis, plasma MDA. Statistical analysis using unpairod t-test or Mann Whitney test with significant level at $p < 0,05$.

Demographic characteristic (age, smoking habits, Brinlcman index, blood pressure, blood glucose, total cholesterol), body mass index (BMI), daily nutrient analysis, plasma MDA between both groups were homogen. Initial plasma MDA in the intervention group. and control were l,39=|=0,l9 vs l,34=l=0,09 nmol/tnL. After intervention plasma MDA were l,l8=k0,22 in the intervention group and 1,3l£),13 nmol/mL in control group ($p <0,03'7$).

After supplementation of vitamin C 500 mg/day and vitamin E 400 IU/day during 4 weeks, showed significantly differences average of plasma MDA between two groups.