Korelasi antara kadar karoten dan malondialdehida plasma pada pekerja laki-laki yang merokok maupun tidak merokok = Correlation between concentrations of plasma carotene and malondialdehyde among male smoking and non smoking workers

Cindiawaty Josito, author

Abstrak

Tujuan: Mengelahui kadar karoten plasma, Malondialdehida plasma dan kebiasaan merokok pekerja laki-laki. Hasilnya diharapkan dapat digunakan sebagai salah satu dasar memperbaiki pola hidup untuk menurunkan risiko aterosklerosis.

Tempat: PT Nasional Gabel Bogor Jawa Barat.

Metodologi: Penelitian dengan desain cross sectional pada 115 pekerja laki-laki baik yang merokok maupun tidak memrokok, berusia 20 - 55 tahun yang memenuhi kriteria penerimaan dan penolakan, dan terpilih secara simple random sampling, menggunakan tabel bilangan acak. Data yang dikumpulkan meliputi: umur, pendidikan, penghasilan, IMT, persentase massa lemak tubuh, asupan lemak, asupan serat, asupan karoten, kadar karoten plasma dan MDA plasma

Hasil: Median kadar karoten plasma subyek yang tidak merokok [0,38 (0,09 - 1,95) mmol/L] lebih linggi dari subyek yang merokok [0,34 (0,08 - 0,94) mmol/L]. Median kadar MDA plasma subyek yang tidak merokok [0,61 (0,22 -- 4,75) mmol/mL] lebih rendah dari subyek yang merokok [0,68 (0,32 - 3,01) mmol/mL]. Tidak didapat hubungan yang bermakna (p>0,05) antara asupan karoten, kadar karoten plasma, kadar MDA plasma dengan kebiasaan merokok. Terdapat korelasi negatif yang bermakna (p<0,05) antara IMT (r = - 0,23), persentase massa lemak tubuh (r = - 0.27) dengan kadar D-karoten plasma. Hampir tidak didapatkan korelasi (r = - 0.06) antara kadar 13-karoten dengan MDA plasma.

Kesimpulan: Hampir tidak didapatkan korelasi antara kadar R-karolen plasma dengan kadar MDA plasma. <hr><i>Objective: To study plasma 0-carotene concentration, plasma MDA concentration and smoking habit male workers. The results are expected to be used as one of basis to enhance life pattern, to decrease atherosclerosis risk.

Place: PT National Gobel Bogor West Java

Method: A cross sectional study was carried out among 115 male smoking workers and non smoking workers, age 20 - 55 years old, who fulfilled the inclusion and exclusion criteria and were selected by simple random sampling using random table. The collected data consist of age, education, income, body mass index, fat mass percentage, fat intake, fiber intake, carolene intake, plasma 0-carotene and MDA concentrations.

Results: Median of plasma fl-carotene concentration among non smokers was higher [0.38 (0.09 - 1.95) µmol/L] than smokers [4.34 (0.08 -- 0.94) µmol/L]. Median of plasma MDA concentration among non smokers [0.61 (0.22 - 4.75) mmol/mL] was lower than smokers [0.68 (0.32 - 3.01) mmol/mL]. There was no significant relationship ($p>0.05$) between [carotene intake, plasma II-carotene concentration, plasma MDA concentration and smoking. There was significant ($p<0.05$) negative correlation between body mass index ($r = -0.23$), fat mass percentage ($r = -0.27$) and plasma [-carotene concentration. Almost no con-elation ($r = -0.06$) was found. between plasma [carotene and MDA concentrations.

Conclusions: Almost no correlation was found between plasma carotene and MDA concentrations.</i>