Pengaruh pemberian oatmeal terhadap kadar apolipoprotein B plasma penderita hiperkolesterolemia

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Abstrak

Tujuan: Mengurangi risiko PKV di Indonesia dengan menurunkan kadar kolesterol dan apolipoprotein B melalui pemberian serat larut -glukan Tempat: P.T. National Gobel, Bogor.
Bahan dan Cara: Penelitian eksperimental dengan disain pre dan post test, dengan subyek penelitian pria, usia > 40 tahun, kadar kolesterol total 220-300 mg/dL, tidak menderita hipotiroid, gangguan hati, sindroma nefrotik, diabetes melitus dan tidak mengkonsumsi obat penurun kolesterol. Subyek penelitian diberikan 75 g oatmeal yang mengandung 3,5 g serat larut -glukan setiap hari selama 42 hari. Data yang dikumpulkan meliputi data sosiodemografi, pemeriksaan antropometri, data asupan makan sebelum dan selama penelitian, pola makan dan pemeriksaan kadar kolesterol total, kolesterol LDL dan apolipoprotein B plasma sebelum dan sesudah penelitian.
Hasil : Data sosiodemografi menunjukkan sebagian besar subyek mempunyai aktivitas ringan, berpendidikan sedang dan mempunyai penghasilan di atas garis kemiskinan. Data antropometri menunjukkan IMT dan rasio Lpe/Lpa sebelum dan sesudah penelitian tidak berbeda bermakna ($p>0,05$), sedangkan pada Lpe terjadi penurunan yang bermakna ($p<0,05$). Penilaian pola makan subyek penelitian menunjukkan sebagian besar subyek mempunyai pola makan yang cukup. Asupan energi dan zat gizi sebelum dan selama penelitian tidak berbeda bermakna ($p>0,05$), kecuali asupan serat yang meningkat bermakna ($p<0,05$) selama penelitian. Persentase asupan energi dan zat gizi bila dibandingkan dengan yang dianjurkan, antara lain didapatkan persentase asupan lemak jenuh lebih dari yang dianjurkan sedangkan asupan serat kurang dari yang dianjurkan. Hasil pemeriksaan kadar kolesterol total, kolesterol LDL dan apolipoprotein B sesudah penelitian menunjukkan penurunan yang bermakna ($p<0,01$).
Kesimpulan: Kadar kolesterol yang tinggi pada subyek penelitian kemungkinan disebabkan asupan lemak jenuh yang tinggi dan asupan serat yang rendah. Pemberian 75 g oatmeal selama 42 hari terbukti dapat menurunkan kadar kolesterol total, kolesterol LDL dan apolipoprotein B.
.....SubjectsObjectives: To reduce CVD risks in Indonesia by reducing the elevated plasma cholesterol and apolipoprotien B level with -glucan soluble fiber. Location: P.T. National Gabel, Bogor.
Material and Method: Experimental study with pre and post test design bad been carried out on male subjects age > 40 years, with total cholesterol concentration 220 to 300 mg/dl, not suffer from hypothyroid, liver disorder, nephritic syndrome, diabetes mellitus, and did not take any cholesterol reducing agents. Subjects were given 75 g of oatmeal (contain 3.5 g -glucan soluble fiber) daily for 42 days. The data collected before and during the study were sociodemographic data, anthropometric and food intake. Eating pattern, total cholesterol, LDL cholesterol, and apolipoprotein B plasma level were also recorded before and after the study.
Result: Socio-demographic data showed that most of the subjects have light activities, moderate education and have monthly income per capita above the poverty line. Anthropometric data showed that BMI and WHR did not differ significantly before and after the study. Eating pattern assessment showed that most of

the subjects had moderate eating pattern. Energy and nutrient intake before and after the study did not significantly different ($p>0,05$) except for fiber intake which increased significantly ($p<0,05$) during the study. Percentage of nutrient and energy intake compared with recommended showed that saturated fat intake is higher while fiber intake is lower. The study showed a significant decrease in the concentration of plasma total cholesterol, LDL-cholesterol and apolipoprotein B.
Conclusion: High cholesterol level in the subjects was likely brought about by high saturated fat and low fiber intakes consumption of 75 g oatmeal daily for 42 days showed to lower the concentration of the plasma total cholesterol, LDL cholesterol and apolipoprotein B.