

Cholesterol-lowering effect of ?Soluble Fiber? as an adjunct to ?Low Calories Indonesian Diet? in patients with hypercholesterolemia

Fadilah Supari, author

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Abstrak

Latar Belakang : Hiperkolesterolemia merupakan salah satu faktor risiko mayor penyakit jantung koroner. Modifikasi diet saat ini telah terbukti bermanfaat sebagai terapi inisial dalam penatalaksanaan hiperkolesterolemia. Penelitian double blind controlled studi ini bertujuan untuk menilai efektifitas "soluble fiber" (serat larut) sebagai terapi tambahan diet rendah kalori pada populasi Indonesia dengan hiperkolesterolemia. Pasien pria/wanita dengan kadar kolesterol 200-300mg% dilibatkan dalam penelitian ini. Setelah 1 minggu periode adaptasi, pasien dirandomisasi untuk dimasukkan ke dalam kelompok terapi (soluble fiber 8.4 g/hari) atau kelompok kontrol. Penelitian dilakukan selama 8 minggu dengan tetap melanjutkan terapi diet.

Hasil : Kadar kolesterol total turun 5.59% pada kelompok terapi sedangkan penurunan pada kelompok kontrol hanya 0.6% ($p < 0.05$). Kolesterol LDL pada kelompok terapi turun sebesar 4.22% pada kelompok terapi. Sementara pada kelompok kontrol justru meningkat sebesar 2.58% ($p < 0.05$). Terdapat pula penurunan kadar kolesterol HDL dalam 8 minggu (16% vs 8%) ($p = 0.005$). Tidak terdapat perbedaan yang bermakna pada indikator-indikator lain di antara kedua kelompok.

Kesimpulan : Pemberian soluble fiber 8.4 g/hari dapat menurunkan kadar kolesterol total, kolesterol LDL dan kolesterol HDL pada pria dan wanita dengan hiperkolesterolemia primer. Tidak terdapat perubahan kadar glukosa maupun elektrolit akibat konsumsi soluble fiber.

Background: Hypercholesterolemia is a major risk factor for coronary heart disease. It has been proven that nutrition management is the initial therapeutic approach in hypercholesterolemic cases. This double blind controlled study evaluated the effectiveness of "soluble fiber" as an adjunct to low energy Indonesian diet in the treatment of persons with hypercholesterolemia. Male and female with hypercholesterolemia were recruited. After run in period for one week (dietary adaptation phase), eligible subjects with serum cholesterol concentrations between 200 mg% and 300 mg% were randomly assigned to receive either 8.4 g/day ?soluble fiber? or a cellulose placebo for 8 wk while continuing diet therapy.

Results: Serum total and LDL-cholesterol concentrations were decreased 5.59 % and 4.22 %. Serum total in the placebo group were decreased 0.60 %, and LDL-cholesterol were increased 2.58 % after eight wk ($P < 0.05$). Other outcome measures did not differ significantly between groups.

Conclusions: Treatment with 8.4 g "soluble fiber" per day produces significant net reductions in serum total (5,59%) and LDL-cholesterol concentrations (4,22%), but also reduced HDL Cholesterol level significantly in male and female with primary hypercholesterolemia.