

The effect of indigestible dextrin and phytosterol on serum LDL-cholesterol level on hypercholesterolemic subjects

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Abstrak

Tujuan Membandingkan efek pemberian indigestible dextrin 2x2.3g/hari (ID) dan fitosterol 2x0.6g/hari (FS) selama 6 minggu dalam menurunkan kadar kolesterol-LDL pada pasien hiperkolesterolemia.

Metode Menggunakan rancangan studi uji klinis pada dua kelompok paralel tersamar ganda dengan alokasi random pada 16 subyek per-kelompok.

Hasil Sebelum intervensi, kadar kolesterol-LDL pada kelompok ID dan kelompok FS masing-masing adalah $158,81 \pm 17,74$ mg/dL and $176,18 \pm 25,31$ mg/dL. Setelah intervensi, didapatkan penurunan kadar kolesterol-LDL yang bermakna pada kedua kelompok, yaitu masing-masing sebesar $20,93 \pm 12,65$ mg/dL (13.24%) dengan nilai $P < 0.001$ pada kelompok ID, dan $21,87 \pm 28,76$ mg/dL (11,21%) dengan nilai $P = 0.008$ pada kelompok FS. Namun besarnya penurunan tersebut tidak berbeda bermakna antar kedua kelompok.

Kesimpulan Penurunan kadar LDL-kolesterol pada pasien hiperkolesterolemia yang mengonsumsi indigestible dextrin 2x2.3g/hari selama 6 minggu tidak berbeda dengan mereka yang mengonsumsi fitosterol 2x0.6g/hari selama 6 minggu.

Aim To investigate the effects of indigestible dextrin 2x2.3g/day and phytosterol 2x0.6g/day provided for 6 weeks in lowering serum LDL-cholesterol levels among hypercholesterolemic subjects.

Methods A randomized clinical trial, two parallel groups, double blinded and randomly assigned to each different group was done in 16 subjects per-group.

Results Before the, intervention the level of LDL cholesterol of both ID and FS group were 158.81 ± 17.74 mg/dL and 176.18 ± 25.31 mg/dL, respectively. After the intervention there was a significant reduction in LDL cholesterol level in both groups, i.e. among the ID group by 20.93 ± 12.65 mg/dL (13.24%) with p value of < 0.001 , while the reduction of LDL cholesterol level among the PS group was 21.87 ± 28.76 mg/dL (11.21%) with p value of 0.008. However, the reduction of cholesterol level between the two groups did not show any significant difference.

Conclusion Consuming indigestible dextrin 2x2.3g/day and 2x0.6g/day phytosterol (PS) for 6 weeks will have the same ability to decrease the serum cholesterol level in hypercholesterolemic subjects.