

Pengaruh pemberian tempe terhadap kadar glukosa darah penderita diabetes melitus tipe 2 usia lanjut = The effect of tempe adminktration on plasma glucose level in eraeny patients win type 2 diabetes mellitus

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Abstrak

Tujuan penelitian adalah diketahuinya pengaruh pemberian 100 gram tempe per hari selama empat minggu terhadap kadar glukosa darah pada penderita diabetes melitus (DM) tipe 2 usia lanjut (usila). Penelitian ini merupakan uji klinis parael, acak, terbuka. Subyck penelitian adalah 30 orang pcndcxita DM tipc 2 usila yang tinggal di empat panti wredha di Jakarta. Alokasi acak dengan cara randomisasi blok diiakukan untuk membagi subyek menjadi dua kelompok. Seluruh subyek dibesikan pengaturan diet DM sesuai PERKENI. Kelompok sebanyak I6 orang yang diberikan 100 gram tempe, sedangkan kelompok K sebanyak I4 orang yang diberikan kacang-kucangan pengganti tempe. Data yang diambil meiiputi usia, jenis kelamin., berat badan dan indeks massa tumbuh (IMT), serta data asupan dengan metodc food record, Pemeriksaan kadar glukosa darah puasa (GDP) dan glukosa darah 2 jam poslprandial (GDPP) dilakukan pada awal dan akhir perlakuan. Analisis data menggunakan uji t tidak berpasangan dan uji Mann Whitney dengan batas kemaknaan 5%. Subyek yang mengikuti penelitian secara lengkap sebanyak 27 orang yang terdiri dari 15 orang kclompok perlakuan dan i2 orang kelompok kontrol. Krata usia suhyek adalah ?70,4:b9,5 rahun. Mayoritas subyck (63,5%) adalah perempuan, dan hampir setengah jumlah subyek mempunyai status gizi normai berdasarkan IMT. Sebagian besar (80%) subyck bclum menerima obat DM. Pada awal penclitian, usia, jenis kelamin, IMT, asupan kalori dan zat gizi subyek tidak menunjukkan pcrbcdaan bermakna ($p>0,05$). Seluruh subyek tidak dapat mematuhi anjuran diet DM yang dibcrikan, asupan Iemak subyek tinggi sedangkan asupan secara rendah. Setelah perlakuan terlihat kecenderungan penurunan kadar GDP dan peningkatan kadar GDPP yang tidak bcfbeda bermakna antam keiompok P dan K. Pcmbrian 100 glam tempc selama empat minggu tidak menumnkan kadar GDP dan GDPP.

.....Aim of this study was to investigate the effect of daily intake of 100 gram tempe for four weeks on plasma glucose level in elderly patients with type 2 diabetes mellitus. 'this study was a parallel randomized clinical trial. Subjects were 30 diabetic elderly living in four nursing homes in Jakarta. In the study, subjects were assigned into two groups using block randomization. All subjects had to take diabetic regiment with calorie and macronutrient following diabetic recommendation diet. The treatment group (n=I6) received tempe, while control group (n=14) received legumes other than tempe. Data collection included age, sex, body weight, body mass index, and nutrient intake using 3x24 hours food records. In addition isotlavone intake was also assessed. Fasting plasma glucose levels (FPG) and 2 hours postprandial plasma glucose (PPPG) levels were assessed before and after intervention Unpaired t-test and Mann Whitney wen: used to analysed data with the 5% significance level. There were 27 subjects completed the study: I5 of treatment group and I2 of control group. Mean of age were 70.4 :L 9.5 years. Majority (63.5%) of subjects were female, and almost half subjects had normal BMI. About 80% of subjects did not use diabetic medication. At base line age, BMI, sex, use of diabetic medication, calorie and macronutrient intake wene comparable. All subjects could not comply with diabetic regiment: high fat and low fiber intakes Far, tiber and isotiavoue intake were significantly higher in treatment group compare to control group. Decrease in FPG and increase

in PPPG alter intervention were observed but were statistically insignificant. In conclusion, daily intake of 100 gram tempc for four weeks did not decrease PPG and PPPG.