低脂高纖維營養補充品對於第 2 型糖尿病患血脂質之影響

The Effect of Low Fat and High Fiber Nutrition supplement on the Blood Lipid of Type 2 Diabetes

中文摘要

研究的目的是在探討低脂高纖維營養補充品介入第 2 型糖尿病患者飲食後是否可以改善病人血液脂質生化值。研究分爲二部分，第一部分爲計算低脂高纖維營養補充品昇糖指數及昇糖負荷。第二部分評估給予第 2 型糖尿病患 3 個月低脂高纖維營養補充品對於血糖、血脂質影響。第一部分招募條件爲 19~30 歲健康者，結果以葡萄糖水溶液當作參考標準試驗食品時昇糖指數 14.7 (昇糖負荷 5.8)，以白吐司當作參考標準試驗食品時昇糖指數 23.6 (昇糖負荷 9.2)。第二部分受試者招募條件爲 30~70 歲，經臨床醫師判斷確認爲第 2 型糖尿病患者且已穩定接受糖尿病治療患者。研究爲期 5 個月之臨床研究，於介入期間給予 85 公克低脂高纖維營養補充品，結果患者之低密度脂蛋白膽固醇濃度顯著降低($p<0.05$)，白蛋白顯著增加($p<0.05$)，其餘飯前血糖、三酸甘油酯、膽固醇、高密度脂蛋白膽固醇、肌酸酐、尿素氮、天門冬胺酸轉胺酶、丙胺酸轉胺酶則無顯著差異。結論低脂高纖維營養配方爲低昇糖負荷及低昇糖指數食品，且對第 2 型糖尿病患者有降低低密度脂蛋白膽固醇值。

英文摘要

This study purpose was to evaluate the effect of low fat high fiber nutrition supplement on blood lipids in Type 2 DM patients. Study was divided as two phase. Phase one was to evalutate glycemic index (GI) and glycemic load (GL) of low fat, high fiber nutrition supplement. Phase two was to evaluate the effect of low fat, high fiber nutrition supplement on the blood glucose and blood lipid of Type 2 Diabetes after they had nutrition supplement 3 months.The result as following, fat, high fiber nutrition supplement ‘s GI: 14.7, GL: 5.8.46 Type 2 Diabetic subjects was recruited aged from 30 to 70 years old. This is a 5-month clinical study, observation period (month 0 to month 1), intervention period (month 1~4th), and the follow-up period. The study subjects were given 85g of low fat high fiber nutrition supplement in theintervention period. The LDL-C concentration of the subjects has dropped significantly ($p<0.05$) after took the low fat high fiber nutrition supplement for 3 months. Albumin increased significantly ($p<0.05$). Fasting blood glucose, triglyceride, total cholesterol, high density lipoprotein cholesterol creatinine , blood urea nitrogen , aspartate aminotransferase, and alanine aminotransferase no significant difference exist.This low fat high fiber nutrition supplement was low GL and GL food and it had a positive effect on the blood lipid of Type 2 Diabetic patients.