

Thesis Title Correlation between Blood Sugar and Triglyceride
Cholesterol LDL-C HDL-C in Diabetes Mellitus
Patients in Chulalongkorn Hospital.

Name Niparut .Chairungruang

Degree Master of Science (Public Health)
major in nutrition

Thesis Supervisory Committee

Vichai Chularojanamatr, B.Sc.,M.A.,
M.P.H.(Nutrition)

Srisuda Sitprija, M.D.,M.Sc.(Experimental medicine)

Chutima Sirikulchayanont, M.D., Thai board in Pediatrics

Suwat Srisorachatr, B.Ed.,M.A.(demography)

Date of Graduation 25 May B.E. 1993 (2536)

ABSTRACT

This study indicated to determine the correlation between serum blood sugar level, BMI and serum triglyceride, total cholesterol, LDL-C, HDL-C in non-insulin dependent diabetic (NIDDM) subjects. These subjects were female, postmenopause and their age ranging from 42-60 yrs. There were on oral hypoglycemic agents such as sulfonylurea, biguanide or diet control alone, and/or combination of both. Thiazide diuretic could be used in mild hypertensive subjects. Exclusion criteria were complication from other diseases, i.e. coronary heart disease, severe hepatic disease, kidney disease, severe hypertension, taking of hypolipidemic drugs and insulin therapy.

The correlation between serum blood sugar level and triglyceride, LDL-C, HDL-C was not significant but trend to have positive correlation between serum blood sugar level with triglyceride, and LDL-C also HDL-C has negative trend. Beside, the correlation between serum blood sugar level and total cholesterol was significant ($P < .05$) in Chi-square model and ($P < .1$) in multivariate stepwise regression model. Moreover body mass index (BMI) had not association with serum triglyceride, total cholesterol, LDL-C, and HDL-C.

These findings indicated that abnormal blood lipids in diabetic patients trend to be elevated according to serum blood sugar level. Thus the nutrition education programs are necessary and possible in diabetic patients for reducing serum blood sugar and risks of coronary heart disease due to abnormal hyperlipidemias, especially the diabetic patients' serum blood sugar level in 121-180 mg%.