

The Effects of Dietary Counseling and Drug Treatment on the Serum Lipid Levels in Hyperlipidemic Patients

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The purpose of this study was to examine the effects of dietary counseling and drug therapy on the blood levels of lipids, lipoproteins, apolipoprotein, and Lp(a), atherogenic index, and coronary risk factor values. Study subjects consisted of 34 hyperlipidemic out-patients of Kyung Hee Medical Center, Seoul, Korea.

Dietary counseling was carried out by the experienced nutritionist every 2 weeks for 3 months. Nutrient intakes were measured by 24-h recall method of 2 weekdays and 1 weekend through a personal interview. The patients were instructed to follow a hypolipidemic and hypocholesterolemic diets. Compliances were monitored through food diary and personal interviews.

The dietary patterns of patient's were changed, white meat and fish were substituted for fatty- and red-meat products; increased consumption of vegetables, legume, and fruits; reduced egg consumption; and avoid sweets and pastries. Compared with the basal diet, the altered diets have less calories, fats, and cholesterol, and more complex carbohydrates and fiber. Serum triglyceride levels were decreased by 11% and 22% after dietary counseling and drug(simvastatin, 10mg) therapy, respectively. After dietary counseling, the reductions in total cholesterol, LDL-cholesterol, Apo A-I, Apo B were 5%, 7%, 4%, and 8%, respectively. After drug treatments, the reductions in total cholesterol, LDL-cholesterol, Apo B were 11%, 19%, and 17%, respectively. Serum HDL-cholesterol was increased by 5% and 31% after dietary counseling and drug treatments, respectively. Serum Lp(a) was increased by 7% and 14% after dietary counseling and drug treatments, respectively. Atherogenic index was decreased by 12% and 36% after dietary counseling and drug treatments, respectively. Coronary risk factor value was decreased by 23% and 38% after dietary counseling and drug treatments, respectively.

As a conclusion, dietary therapy should be done prior to drug therapy and concomitantly with drugs to treat hyperlipidemic patients. During the dietary counseling, the food habits and food selection patterns of the patients were changed, and the changes lead to a positive effect on serum lipid profiles. Restricting total daily calories and cholesterol through dietary counseling prior to drug therapy could be very effective to lower the serum triglyceride level. The drug therapy showed the distinctive reductions

in serum triglyceride, total cholesterol, LDL-cholesterol, and Apo B levels. In addition, Coronary risk factors can be used with Atherogenic Index as a new hyperlipidmic risk index.