

Thesis Title Study on prevalence and management of
Hyperlipidemia in first-line relatives of
patients with hyperlipidemia
Name Patcharaporn Aree
Degree Doctor of Science (Nutrition)
Thesis Supervisory Committee
Vichai Tanphaichitr, M.D., Ph.D., F.A.C.P., F.A.C.N.
Somjai Wichaidit, Ph.D.
Wirapong Chatranon, M.D., M.Sc.
Suchati Indraprasit, M.D., M.Sc.
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ABSTRACT

The specific aims of the study are to identify the causes of hyperlipoproteinemia in the known hyperlipidemic patients attending Nutrition Clinic at Ramathibodi Hospital, to assess the effect of treatment on serum lipid levels of the known hyperlipidemic patients and the other risk factors for coronary heart disease (CHD), and to investigate the prevalence and management of hyperlipidemia in the first-line relatives of the known hyperlipidemic patients. The study in known hyperlipidemic patients was retrospective whereas the study in their first-line relatives was prospective. The 89 known hyperlipidemic patients consisted of 30 men and 59 women with the mean (\pm SEM) age of 51.0 ± 1.2 yr. Only 25 patients

were able to persuade their first-line relative to participate in the study. In 29 known patients with type IIa hyperlipoproteinemia receiving dietary treatment for 34.8 ± 41.3 wks there were significant decreases in serum total cholesterol (TC) and low density lipoprotein cholesterol (LDL-C) levels. In 8 known patients with type IIb hyperlipoproteinemia receiving dietary treatment for 83.2 ± 27.8 wks there was significant decrease in serum triglyceride (TG) only. In 10 known patients with type II hyperlipoproteinemia receiving 200-600 mg of bezafibrate treatment daily for 40.3 ± 18.1 wks, there were significant decreases in serum TC, LDL-C, and TG levels. In 10 known patients with type II hyperlipoproteinemia receiving 600-1,200 mg of gemfibrozil treatment daily for 21.9 ± 6.5 wks there were decreases in serum TC, LDL-C, high-density lipoprotein cholesterol (HDL-C) and TG levels. In 13 known patients with type II hyperlipoproteinemia receiving 250-1,000 mg of probucol treatment daily for 77.4 ± 31.3 wks, there were significant decreases in serum TC and LDL-C levels. The prevalences of hyperuricemia, obesity, hypertension, anemia, coronary heart disease, smoking, and alcohol drinking in these patients were 68.6, 42.7, 25.8, 16.0, 11.2, 3.4, and 2.2%, respectively. The pedigree study revealed 15 patients were familial hypercholesterolemia, 3 were familial combined hyperlipidemia, and 7 were inconclusive. Out of 65 first-line relatives, 46 were

hyperlipidemic: 58.5% as type IIa, 9.2% as type IIb, and 3.1% as type IV hyperlipoproteinemias. After receiving nutrition brochure, only 18 hyperlipidemic first-line relatives revisited the Nutrition Clinic 8 wk later. Since there was no increase in their serum linoleate level at week 8 this indicates that they did not increase their linoleate intake. This explains why there were no significant decreases in their serum TC and LDL-C levels at week 8. In 7 first-line relatives with type IIa hyperlipoproteinemia receiving fibric acid derivatives for 6 wk. There were significant decreases in serum TC, LDL-C, TG, M- and S-particles levels as well as significant increase in serum HDL-C levels. Eight out of 19 normolipidemic first-line relatives were still normolipidemic 1 yr later.