Effect of lecithin on blood lipid profiles in hypercholesterolemic patients

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Abstract

Background&Objective: Hypercholesterolemia is a risk factor for atherosclerosis that responded variably to dietary modification of fat and cholesterol. Previous studies in humans have shown that ingestion of lecithin can alter plasma cholesterol and triglyceride but results were different. The current study was designed to investigate the hypocholesterolemic properties of lecithin on patient with hypocholesterolemia.

Materials&Methods: Sixty one subjects (27 Male, 34 Female) with mean ages 44±14 years old with hypercholesterolemia, was admitted to Mottahari Health Center(Shiraz), randomly assigned to the case (n=31) and control (n=30) groups. Case group received three lecithin capsules (1200 mg) which contain 420 mg Phosphatidylecoline, daily for six weeks. Subject's weight, Body Mass Index (BMI) and serum lipid concentration were measured at the beginning and the end of six weeks.

Results: No significant difference were found in mean weight in case group when compared to control group. Also no significant difference were found in mean BMI in case group when compared to control group. Significantly lower mean serum Total Cholesterol, LDL cholesterol, and triglyceride and significantly higher HDL cholesterol were found in case group. In addition mean serum total cholesterol ($P<0.05$), LDL cholesterol ($P<0.05$) and TG ($P<0.05$) decreased and mean serum HDL-Cholesterol ($P<0.05$) increases significantly in case group vs. control group.

Conclusion: This study showed that lecithin could be considered as effective nutrient useful in dietary treatment of hypercholesterolemia.

Key Words: Hypercholesterolemia – Phosphatidylecholine – Atherosclerosis- Lecithin