

Evaluation of Cholesterol Panel Changes in Fish Consumers in the West of Mazandaran Province, Iran

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Abstract

Background and objectives: Eating fish reduces low-density lipoprotein cholesterol (LDL-C) and increases high density lipoprotein cholesterol (HDL-C). Because of different factors, such as physiological conditions and kind of fish consumption, the findings can be different. We decided to investigate the reducing effect of regular fish eating on plasma lipids and lipoproteins of different groups.

Material and Methods: the Subjects were 50 clients (control group) with normal Lipid and 50 ones with high Lipid (case group). The subjects, with different sex and age, were asked about smoking, heart disease and diabetes. Fast blood samples were collected and analyzed for total cholesterol (TC), low and high density lipoprotein cholesterol (LDL-C, HDL-C and VLDL), TG, HDLC, apolipoprotein A and B.

Results: The data shows a significant difference in cholesterol, LDL, apoA and VLDL levels in moderate and high consumers. ($P < 0.005$). In subjects with high LDL, the kind of fish consumption was stir-fried (0.96%) and grilled and boiled (7.4%). The Subjects with high-fish consumption is 32.2% for normal LDL Level and Just 1.1% for abnormal Level. There is no significant effect on HDL and apoB levels due to fish intake in any dosage. The relation is seen between abnormal lipid and rare fish consumption.

Conclusion: Present study shows the reducing effect of fish consumption on cholesterol level and LDL-C. More studies are needed to be conducted to evaluate the type of fatty acids in fishes. .

Key words: Fish, dietary, cholesterol panel.