

Abstract

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Effect of fenofibrate on lipoprotein(a) in hypertriglyceridemic patients: impact of change in triglyceride level and liver function.

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OBJECTIVE: We investigated the effect of fenofibrate on lipoprotein(a) levels in hypertriglyceridemic patients and the parameters relating to its effect.

METHODS: Patients with a triglyceride level ≥ 300 mg/dL or with a triglyceride level ≥ 200 mg/dL and a high density lipoprotein cholesterol level ≤ 40 mg/dL were treated either with 200 mg of fenofibrate (Fenofibrate group, n = 56) or with general measures (Control group, n = 56). Lipid and lipoprotein levels were measured at baseline and 2 months.

RESULTS: Baseline lipoprotein(a) levels were negatively correlated with triglyceride ($r = -0.30$, $P = 0.001$) and alanine aminotransferase levels ($r = -0.24$, $P = 0.012$). Fenofibrate therapy increased lipoprotein(a) level from 9.4 to 15.6 mg/dL ($P = 0.000$). The more triglyceride levels decreased, the more lipoprotein(a) levels increased in all subjects ($r = -0.46$, $P = 0.000$) and in Control ($r = -0.35$, $P = 0.008$) and Fenofibrate groups ($r = -0.35$, $P = 0.008$). Fenofibrate elevated lipoprotein(a) level greater in patients with a normal liver function. When Fenofibrate group was divided into two subgroups according to the degree of percentage change in lipoprotein(a) level, change in triglyceride level and alanine aminotransferase level were independent predictors by forward logistic regression analysis.

CONCLUSION: In summary, fenofibrate therapy increases lipoprotein(a) level, and this elevation is associated with change in triglyceride level and liver function.

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