

Abstract

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Pronounced lowering of serum levels of lipoprotein Lp(a) in hyperlipidaemic subjects treated with nicotinic acid.

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METHODS: Thirty-one consecutive unselected hyperlipidaemic patients were treated daily with 4 g of nicotinic acid for 6 weeks. The concentrations in serum of lipoprotein Lp(a), and the major lipoprotein classes, were determined before and after the treatment.

RESULTS: Nicotinic acid significantly reduced the serum levels of Lp(a) in the whole patient group. Linear regression analysis showed a strong negative relationship between the percentage reduction of Lp(a) and the serum triglyceride level before treatment ($r = -0.78$), which implied that for patients with a serum triglyceride concentration above 7.5 mmol l⁻¹ there was a rise of Lp(a). The average individual percentage decrease of the concentration of Lp(a) was calculated after the exclusion of four patients who had serum triglyceride levels above 10 mmol l⁻¹. The decrease was 38% with a 95% confidence interval of 28-47%. The absolute decrease of Lp(a) was correlated with the pretreatment levels of Lp(a) ($r = 0.91$). Within the whole group of patients there was a linear relationship between the percentage decrease of Lp(a) and that of LDL cholesterol ($r = 0.88$).

CONCLUSION: This latter strong relationship might be due to an inhibition of the synthesis of the protein common to the two lipoproteins, apolipoprotein B.

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