

Abstract

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Lipoprotein(a) level and its association with tumor stage in male patients with primary lung cancer.

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BACKGROUND: Recently, attention has been focused on the effect of lipoprotein(a) [Lp(a)] on tumors because of its possible role in development of tumor angiogenesis. The aim of this study was to investigate Lp(a) serum levels in patients with lung cancer and its association with the stages of disease.

METHODS: Fasting venous blood samples were collected from 418 untreated male patients with stages I-IV lung carcinoma and were analyzed for Lp(a). The results were compared with the data from 65 healthy male controls.

RESULTS: Lp(a) levels were elevated (median 157 mg/L, range 16-1497 mg/L) in patients with lung carcinoma compared to control subjects (median 110 mg/L, range 35-706 mg/L) ($p=0.004$). Subgroup analysis showed that patients with stages II-IV disease had significantly higher Lp(a) concentrations than did healthy controls ($p<0.05$). There was an independently positive correlation between tumor stage and Lp(a) levels among patients with stages I-III ($r=0.162$, $p=0.006$). However, there was a decrease in Lp(a) in stage IV compared to stage III patients ($p=0.03$).

CONCLUSIONS: There is a significant association between Lp(a) and the presence and stage of lung cancer. Additional investigations with a larger number of lung cancer patients are needed to confirm these findings.

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