

Turkish Journal of Medical Sciences

Turkish Journal



Homocysteine Levels and Other Risk Factors in Coronary Heart Disease

of

Medical Sciences

Giray BOZKAYA¹
Aydan ÇAVUŞOĞLU¹
Sibel BİLGİLİ¹
Baysal KARACA¹
Ercüment CENGİZ²
Oktay BİLGİR²

Departments of ¹Biochemistry, ²2nd Internal Medicine, SSK İzmir Training Hospital. Bozyaka, İzmir-TURKEY

 [Keywords](#)
 [Authors](#)



medsci@tubitak.gov.tr

[Scientific Journals Home Page](#)

Abstract: Many risk factors for coronary heart disease (CHD) have been reported to date. Recently, it has been shown that elevations in homocysteine (Hcy) levels may contribute to the development of coronary heart diseases. In this study, our aim was to determine the relation of Hcy levels and other risk factors in CHD. Serum Hcy, lipoprotein(a) [Lp(a)], C-reactive protein (CRP), fibrinogen, cholesterol, triglyceride, HDL and LDL levels were measured in 51 male patients, diagnosed with CHD with negative T elevations in electrocardiograms, and in 20 healthy males. Hcy was determined in serum samples with Fluorescence Polarization Immunoassay (FPIA) on Abbott IMx. All the parameters were found to be significantly higher ($p < 0.05$) when compared with those of the control group. The mean Hcy levels in patients and control subjects were $12.18 \pm 0.65 \mu\text{mol/L}$ and $3.73 \pm 0.43 \mu\text{mol/L}$ respectively. It was found that Hcy levels did not correlate with CRP, fibrinogen or Lp(a) ($p > 0.05$), while CRP was well correlated with fibrinogen and Lp(a), and Lp(a) was well correlated with fibrinogen ($p < 0.05$). High levels of Hcy are associated with CHD independent of other coronary risk factors. Since high Hcy levels can easily be treated with vitamin supplements, determining Hcy concentrations on a routine basis may help to reduce mortality and morbidity from cardiovascular diseases.

Key Words: atherosclerosis, homocysteine, fibrinogen, CRP, Lp(a)

Turk J Med Sci 2001; **31**(5): 425-428.

Full text: [pdf](#)

Other articles published in the same issue: [Turk J Med Sci, vol.31, iss.5.](#)