



Anti-inflammatory role of HDL cholesterol: data from the ATTICA study

Results from the ATTICA study in 2,282 subjects without prior cardiovascular disease show an inverse relationship between HDL cholesterol and inflammatory markers.¹ The data were presented during the European Society of Cardiology Annual Congress, Vienna 1-5 September 2007.

The ATTICA study was a population -based cohort (aged > 18 years old), stratified by age – gender, recruited from the greater area of Athens during 2001-2002. Adherence to a Mediterranean diet was assessed through a diet-score that was based on a validated food-frequency questionnaire. Researchers investigated the relationship between HDL cholesterol levels and the inflammatory markers high sensitivity C-reactive protein (hs-CRP), interleukin-6 (IL-6), homocysteine and amyloid-a, after taking into account the effect of several confounders in this cohort.

Overall, 21% of men and 7% of women had low HDL cholesterol levels (<35 mg/dL). The researchers showed that HDL cholesterol levels were inversely correlated to hs-CRP levels ($p=0.001$) and homocysteine levels ($p=0.036$), even after adjustment for sex, age, body mass index, physical activity status, smoking, total cholesterol levels, use of lipid lowering agents, alcohol intake and diabetes. There was no significant association between HDL cholesterol levels and IL-6 or serum amyloid-a.

These results added to other findings and show an emerging anti-inflammatory role of HDL cholesterol in reducing cardiovascular risk.

Reference

1. Chrysohoou C, Panagiotakos DB, Skoumas J et al. The emerging anti-inflammatory role of HDL cholesterol illustrated in cardiovascular disease free population; the ATTICA study. *Eur Heart J* 2007;28(Abstr suppl):19. Abstract 325.