

Thromb Haemost 2011 Feb;105(2):329-35 Epub 2010 Dec 6

PMID: 21136015 DOI: 10.1160/TH10-08-0522

Association of plasma fibrinogen, C-reactive protein and G-455>A polymorphism with early atherosclerosis in the VITA Project cohort

Alberto Tosetto, Patrizio Prati, Claudio Baracchini, Renzo Manara, Francesco Rodeghiero

Abstract

While increased fibrinogen is associated with vascular events, only few data are available on its association with preclinical atherosclerosis. We aimed at evaluating the association between fibrinogen levels, fibrinogen polymorphism G-455>A and C-reactive protein and preclinical atherosclerosis in a population-based, cross-sectional study. A cohort of 2,580 subjects was enrolled. Fibrinogen was measured at time of original enrollment and at time of the second visit, when ultrasound examination of both left and right common carotid arteries was performed, together with evaluation of C-reactive protein (CRP) and of the fibrinogen G-455>A polymorphism. CRP and fibrinogen levels at baseline were the two variables mostly influencing fibrinogen levels at the follow-up visit ($p < 0.0001$). Carriers of the H2H2 genotype of the G-455>A polymorphism had increased fibrinogen levels, particularly in association with increased CRP levels. Increased fibrinogen levels were independently associated with presence of carotid plaques, particularly in those subjects having a persistent increase of fibrinogen (odds ratio 1.98, 95% confidence interval 1.47-2.67). An association between the H2H2 genotype and presence of carotid plaques was observed only in a subgroup of subjects with CRP > 0.5 mg/dl. A persistent increase of plasma fibrinogen is associated with an increased risk of early atherosclerosis.

Link all'articolo: <https://pubmed.ncbi.nlm.nih.gov/21136015/>