Reviewer's report

Title: Relationship between carotid intima-media thickness and coronary angiographic findings: a prospective study

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Reviewer: Eugenia Capati

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Carotid intima-media thickness (CIMT) is increasingly used as a surrogate marker for atherosclerosis and its value as a prognostic factor for cardiovascular events has already well established by many studies, as reported in a recent meta-analysis (Circulation 2007;115:459-67). The aim of this work is to investigate the relationship of CIMT with the presence and extent of significant coronary artery narrowing, in a subset of patients with “suspected CAD”. The association of increased carotid intima-media thickness with the extent of coronary artery disease has already demonstrated (Heart 2004;90:1286–1) and more recently confirmed (J Cardiovasc Med, 2009 Jun 10) in a study considering retrospectively a large cohort of patients referring to cath-lab for suspected CAD. The value of this work is certainly that is a prospective study, but there are some details that authors need to add.

Major Compulsory Revisions

- First of all, there is a lack in reporting inclusion criteria to entry to the study: the patients considered have “suspected CAD”, but no information is provided about clinical presentation (unstable or stable angina). No information is provided about how the estimation of coronary stenosis was obtained (by an automated quantitative coronary arteriographic analysis or by a visually interpretation by expert interventional cardiologist) and if the interventional cardiologist was unaware of the results of CIMT measurements or viceversa. Why did the authors consider a luminal narrowing >50% clinically significant? Perhaps, it’s better to say that a patients with at least one lesion > 50% within the main branches of the coronary arteries is considered to have significant CAD. Moreover, the CIMT measurement was obtained “from a 1 cm segment located 2 cm below the common carotid artery bulb”, instead of “distal 1 cm of each CCA” as recommended the ASE Consensus Statement.

- About data analysis, Group 1 and Group 2 significantly differ for diabetes, hypercholesterolemia and hypertension. Did the authors consider a multivariate analysis for adjusting the differences between the two groups?

The conclusion of this work is pertinent to the initial purpose, but we need a better definition of methods and a better analysis of data to confirm these results, eliminating the confounding factors (such as cardiovascular risk factors) to finally demonstrate the correlation between CIMT and coronary disease.
**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.