Reviewer’s report

Title: Association of sICAM-1 and MCP-1 with Coronary Artery Calcification in the NHLBI Family Heart Study Follow-up Examination

Version: 1 Date: 16 August 2007

Reviewer: Robert MacFadyen

Reviewer’s report:

General
This is a well written manuscript. If the authors are interested in testing ethnicity and its impact on CAD then this is good and the authors should say so but the experiment should focus on KNOWN coronary disease in African Americans not surrogate endpoints of vague vascular risk.

The experimental design is flawed as it simply tests known mediator associations with major problems in the assay technology employed. A clear statement of the sample population is required in the title (e.g. it does not mention hypertension anywhere!). Is it really the case that the general cardiological community assumes the biology of coronary disease in African; African-American or Afro-Carribeans is equivalent between each other far less to that seen in Caucasians? I don't we do but equally I don't think many feel it is likely to represent a simplistic one mediator difference.

These basic faults are however clearly admitted in the text. It might be helpful to gather them together in a formal headed Limitations paragraph.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The design cannot be altered retrospectively. I would question the principle of testing multiple mediator associations in unconfirmed CAD. It is well established that electron beam calcification is a very poor marker (not very sensitive and not very specific) for stenotic or rather prognostically significant coronary disease. The error in assay technology is presumably irreversible?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

Personally I feel tables of data are immensely poor at illustrating relationships. Show us the data as a graph even a scatter plot! The first rule of statistics is to look at the data (and let everyone else see it too).
What next?: Accept after minor essential revisions

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.