Reviewer’s report

Title: T null and M null genotypes of the Glutathione S-transferase gene are risk factor for CAD independent of smoking

Version: 1 Date: 19 March 2006

Reviewer: Maria Grazia Andreassi

Reviewer’s report:

General
This study evaluated the potential relevance of the glutathione S transferases-T1 (GSTT1) and M1 (GSTM1) deletions for the manifestation of Coronary Artery Disease (CAD) as well as the role of the interaction between smoking and GST genotypes on developing CAD in Arab population. The results showed that the GSTT1 and GSTM1 null-genotypes are independent risk factor for CAD. Additionally, there is strong evidence of genotype-genotype interaction. However, genotype-smoking interaction does not increase the risk of developing CAD. The study is well designed and clearly presented, and the findings support prior studies showing a links between GSTs genes and vascular diseases. However, I have some general suggestions which the Authors might wish to consider.

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Minor Essential Revisions

-The authors should provide more details on severity of CAD. Indeed, it would be interesting to evaluate the distribution of GST genotypes in relation to the disease severity.

-In Tables 4 where authors show a significant interaction between the GSTM1 genotype with smoking, a protective OR= 0.469 is presented: which jointly predictive variables (described as interactive effect) was entered into the model? Please clarify.

Discretionary Revisions

-Further discussion of the relevance of findings among non-smokers should be included. For instance, the authors may better discuss the hypothesis that GST enzymes play a key role in protecting blood vessels against a growing number of exogenous and endogenous oxidants that act as atherogens.

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: No
Declaration of competing interests:

I declare that I have no competing interests