Reviewer’s report

Title: A Genetic Variant of the Atrial Natriuretic Peptide Gene is Associated with Left Ventricular Hypertrophy in a Non-Diabetic Population - The Malmö Preventive Project Study

Version: 3 Date: 27 November 2012

Reviewer: Maria Hurle

Reviewer’s report:

The manuscript “A Genetic Variant of the Atrial Natriuretic Peptide Gene is Associated with Left Ventricular Hypertrophy in a Non-Diabetic Population – The Malmö Preventive Project Study”, authored by A Juji#, M Leosdottir; G Östling, P Gudmundsson, P Nilsson, O Melander and M Magnusson deals with the influence of the SNP rs5068 on the lack of left ventricular hypertrophy in non diabetic patients. The authors belong to a group that should be commended for a large long term prospective initiative that is providing much relevant population-based information.

Reviewer’s comments:

1. Left ventricular mass index for the complete group of patients and the normal and hypertrophic LV cohorts is not shown.

2. When summarizing the results of the logistic regression analysis (Table 2, model 2) the authors do not include the coefficient B and Wald test values of all independent variables and this conceals to the reader the probably low relative statistical weight of the SNP rs5068 for the prediction of LV hypertrophy as compared with some of the other independent variables studied. The only marginally significant predictive power of the SNP, together with the paucity of other relevant data raises in the reader the suspicion that the effect of this polymorphism may be of low relevance as it is relatively “ejected” of the model by the rest of the heavier variables.

3. Also in model 2, the sensitivity, specificity, percent of overall correct and results of the Hosmer-Lemeshow test (#2 and significance) are not given.

4. A similar reasoning can be applied to the summary of results of the multiple linear regression analysis (Table 3). Neither the full equation of the model (with F, adjusted R2 and significance values), nor coefficient B and beta values of every single significant independent predictor variable are given and, again, when all important variables are included in the model the SNP under study becomes statistically non-significant.

5. With these important limitations of the key finding the rest of the discussion is speculative.

Level of interest: An article of limited interest
Quality of written English: Not suitable for publication unless extensively edited

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

Declaration of competing interests:
I declare that I have no competing interests