Reviewer’s report

Title: Hypercoagulability and the risk of recurrence in young women with myocardial infarction or ischaemic stroke: a cohort study

Version: 1 Date: 20 Aug 2018

Reviewer: Peter R. Hansen

Reviewer’s report:

Major comments

RATIO patients presented with MI or ischaemic stroke in 1990-95 (P4, L24) and were included in 1995-98 (P4, L43), with blood samples for coagulation markers drawn after a median of 69 and 95 months for MI and ischaemic stroke cases, respectively (P4, L58-60). Accordingly, it seems that patients who died in the period 1990-95 after their index event were not part of the follow-up analysis. Also, the apparent 2 year difference in the (median) time of blood sampling between the 2 groups seems a bit peculiar and the authors may want to clarify these matters. In addition, they may comment on the potential for differential effects of long-term different treatment of MI vs. ischaemic stroke, e.g. antithrombotic drugs, statin dose etc., to affect some of the (non-genetic) coagulation markers included in their genetic score, and the authors may also comment on whether markers of inflammation may have added prognostic value in this context.

Minor comments

P2 L16: Use 'HRs' instead of 'HR'.

P4, L48: It would seem most important to state that control subjects had no prior MI or stroke.

P5, L43: 'or to nobody at all' may need an explanation. How many were there of such instances?

P6, L12: 'will invariably lead to hospitalization' should probably be 'will most likely lead to hospitalization'.

P7, L34-36: It may be relevant to shortly describe how some of these covariates were defined, e.g. alcohol consumption, diabetes, hypertension, hyperlipidaemia, and family history of CVD.

References: Check journal's format - for example, annotations 'Br J Haematol' (ref #16) and 'British journal of haematology' (ref. #19) cannot both be correct.

Table 1: Add 'years' and 'kg/m2' to Age and BMI, use 'Medical history' instead of 'History of'.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.
Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
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Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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