Reviewer's report

Title: A Common Genetic Factor Underlies Hypertension and other Cardiovascular Disorders

Version: 1 Date: 3 February 2004

Reviewer: Andreas Wienke

Reviewer's report:

General

The paper used a classical twin design to examine whether hypertension, migraine, Raynaud's phenomenon and coronary artery disease are linked through shared environmental exposures or by a common underlying genetic propensity to vasospasm. 525 monozygotic and 577 dizygotic female twin pairs from the St Thomas' Adult UK Twin Registry are analysed. There was a significant genetic contribution to all four traits with heritabilities ranging from 0.34 to 0.64 and the authors found evidence that a single genetic factor underlies them. The paper is well written, very clear and understandable. The authors keep the paper very short and concise, maybe sometimes a little bit too short.

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

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

1. page 1, line 4 missing comma after (HPT)
2. page 1, line 15 reference [6] contains nearly no additional information, I miss more information about the twin register. Furthermore, I miss the number of twins here in the subjects section and a statement that all subjects are females.
3. page 1, line 7 from bottom typo AND
4. page 2 and later write the numbers (use one instead of 1 etc.)
5. page 4 give prevalences and heritability estimates from other papers explicitly
6. reference 6 wrong/incomplete reference
7. reference 7 Cederlöf instead of Cederlof
8. reference 20 please check this reference (common Ph.D thesis from three authors?)
9. reference 21 typo (17. )
10. reference 22 typo Generalisability
11. reference 23 typo Sneider
12. two blank pages in the paper

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Discretionary Revisions (which the author can choose to ignore)

I recommend expanding the paper in the subjects and methods section to give more information about the composition of the twin registry and about the three twin models used. In the last section I recommend a discussion about (possible) differences between volunteer twin studies and studies using data from population based twin registers.
What next?: Accept after discretionary revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
None