Reviewer's report

Title: A role for CETP TaqIB polymorphism in determining susceptibility to atrial fibrillation: a nested case control study

Version: 2  Date: 3 April 2006

Reviewer: Jan Albert A Kuivenhoven

Reviewer's report:

General

The authors have adequately addressed the concerns and suggestions. Importantly, the biology that may link AF and CETP are now discussed.

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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)

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Discretionary Revisions (which the author can choose to ignore)

• In the last sentence of the background section, the authors state that “models combining genetic and environmental risk factors are more accurately associated with the presence of AF than models with single risk factors”. The use of term ‘more accurately’ may be reconsidered. The authors provide no biological evidence that this is indeed the case. The MDR model has only provided them with stronger associations between parameters, but whether this reflects the underlying mechanisms is unclear.

• The authors indicate that “the presence of albuminuria has the largest univariate association with AF” (page 11, second paragraph). The first paragraph in the discussion, however, suggests that CETP TaqIB is most strongly associated with AF, especially when taking other risk factors into account.

• Figure 1. The analyses appear to suffer from small numbers of B2B2 carriers. As a result, a gene dosage effect is not apparent and can even be disputed. The authors may consider to pool the B1B2 and B2B2 carriers to increase power.

• Figure 2 really helps this reviewer but “TaqIB” in the figure may need specification, i.e. B1B2, or B2B2 or both? From this illustration, it is now clear how each of the parameters studied are predicted to be associated with AF and how they affect each other. The paper may benefit from a small table listing the results of a simple univariate analysis, starting with the parameter with the largest impact. Subsequently, the added value of the MDR model can be highlighted.

What next?: Accept after discretionary revisions
Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.