Reviewer's report

Title: Microsomal triglyceride transfer protein -164 T>C gene polymorphism and risk of cardiovascular disease: results from the EPIC-Potsdam case-cohort study.

Version: 1 Date: 30 November 2012

Reviewer: Kenji Okumura

Reviewer's report:

General Comments
The authors studied the association of microsomal triglyceride transfer protein (MTTP) -164 T>C gene polymorphism and risk of cardiovascular disease using the subjects of the EPIC-Postdam Study. This study is a case-cohort and prospective study. When the subjects were divided into two groups according to cholesterol levels, the rare allele, that is C allele, had a dominant effect on the occurrence of cardiovascular disease, in particular, ischemic stroke in the subjects with cholesterol levels of <200mg/dL. They concluded that MTTP -164 T>C is a functional polymorphism regarding the development of cardiovascular disease.

Specific Comments
1. P 12, lines 1-2 “The association seemed to be stronger for IS than for MI, although the difference was not significant.”

According to Table 2, only ischemic stroke, not MI, is associated with MTTP -164 T/C polymorphism. What do you mean “the difference was not significant”.

2. The authors explained that the reason of the different effect of MTTP genotype is that MTTP gene expression and activation is liked to cholesterol levels, resulting in the accumulation of lipids in tissues in the C allele subjects with lower cholesterol. However, the reverse effect in the subjects with cholesterol levels of # 200 mg/dL could not be explained.

3. How did you determine the cutoff value of cholesterol at 200mg/dL?

4. Do the results from this study suggest that cholesterol levels should be increased in the subjects with the MTTP C allele?

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

I declare that I have no competing interests below.