Reviewers report

Title: Carotid Plaque Rather than Intima-media Thickness As A Predictor of Recurrent Vascular Events in Patients with Acute Ischemic Stroke

Version: 0 Date: 03 Jun 2017

Reviewer: Rosa Maria Bruno

Reviewers report:

This retrospective study confirms that in a Korean group of individual with ischemic stroke that common carotid plaque, but not IMT, is associated with recurrent stroke. Though interesting and clinically relevant, the results are rather confirmatory. We recommend to deal with the following issues:

Abstract: method section in the abstract should be rewritten: number of events is part of the results.

Background:

- page 4, line 27 please change " a recent metaanalysis" instead of "the current metaanalysis"

Methods:

- page 5, line 57-59: in the composite endpoint considered, it is not clear how coronary events and peripheral arterial disease occurrence were defined; furthermore, it is debatable to consider total mortality in a composite endpoint labeled as "vascular events": only cardiovascular mortality should be included. Are recurrent TIA considered as endpoints too? The authors should also specify how the clinical follow-up was performed and how information about events was retrieved

- page 6: which kind of semi-automated vessel-wall detection software was used?

- The rationale of comparing echocardiographic measurements is not entirely clear, please explain or remove the data. This might probably allow the authors to exclude less patients from the analysis.
- Please specify methods regarding blood samples.

- Statistical analysis: how did the authors choose variable included in the multivariate analysis?

Results:

- Please specify ethnicity of the participants

- lower LDL-chol levels in the VE group is somewhat surprising, is statin use more prevalent in this group? Please provide some information about treatment at enrollment. It seems appropriate to include LDL levels or statin use in the model

- It seems that only plaques in common carotid artery were considered in the results, whereas the bulb and internal carotid are more common sites of atherosclerosis. If yes, please specify throughout the text CCA plaque instead of carotid plaque. Did previous literature cited in the article analyze CCA, ICA or global plaques? This issue should be discussed in the discussion section. Are plaques in bulb/ICA predictive of VE in the present population? Are there any patients with ICA stenosis >50%? Did they have a higher risk of recurrent stroke? Did any of them undergo carotid revascularization or when they excluded?

Discussion

- Please underline in the discussion the elements of novelty of this article in comparison to previous literature.

- Prevalence of carotid plaques in the study population appears to be around ¼ of individuals with first stroke. Is this in line with epidemiological data in this ethnic group?

- Page 11, line 16: please correct "marker" instead of "maker"

- How do the author comment of lack of predictive value of plaque size and echogenicity?
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