Reviewer's report

**Title:** Prehypertension increases risk for carotid atherosclerotic plaque formation in community population of Southern China

**Version:** 3 **Date:** 4 November 2012

**Reviewer:** Christian Delles

**Reviewer's report:**

The paper by Wang and colleagues provides interesting insights in vascular consequences of early stages of hypertension. The authors demonstrate that prehypertension is associated with carotid artery plaque formation and increased carotid IMT. For the purpose of risk stratification the JNC 7 classification may be appropriate according to these data, as according to the ESH/ESC classification there was no difference in carotid IMT and plaque occurrence between the normal and high normal BP groups.

The sample size is adequate for this research, and the paper is generally well presented, but requires a number of edits to style and grammar.

**Major Compulsory Revisions**

1. Please explain how cIMT images were analysed. Was special image analysis software used?

2. It appears that the pre-hypertensive and normotensive participants were not on antihypertensive medication. Please clarify this issue by providing data on antihypertensive and other cardiovascular medication (e.g. statins) in the tables.

3. Independent of the more sophisticated analysis in this paper it would be interesting to see a scatterplot of cIMT vs systolic and diastolic blood pressure. These would clearly be unadjusted data, but may add an interesting figure to the paper.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

No conflict.