Reviewer’s report

**Title:** Prevalence of the metabolic syndrome in patients with carotid disease according to NHLBI/AHA and IDF criteria: cross-sectional study

**Version:** 1 **Date:** 28 November 2011

**Reviewer:** Vasilios G Athyros

**Reviewer’s report:**

The original paper 1487225666413119_article BMC Cardiovascular Disorders by Maksimovic MM, et al “Prevalence of the metabolic syndrome in patients with carotid disease according to NHLBI/AHA and IDF criteria: cross-sectional study” has relevance to the audience of this journal.

The aim of this study was to estimate the investigate agreement between the National Heart, Lung, and Blood Institute American Heart Association (NHLBI/AHA) and the International Diabetes Federation (IDF) definitions of MetS in patients with symptomatic carotid disease and to compare the frequency of cardiovascular risk factor in patients with MetS diagnosed by these two sets of criteria.

The study included a cross-sectional involving 644 consecutive patients with verified carotid disease who referred to Vascular Surgery Clinic. Anthropometric parameters blood pressure, fasting plasma glucose and lipoproteins were measured using standard procedures.

Results showed that MetS was present in 67.9% of participants, according to IDF criteria, and in 64.9% of participants, according to the NHLBI/AHA criteria. A total of 119 patients were categorized differently by the two definitions. Out of all participants 10.7% had MetS by IDF criteria only and 7.8% of patients had MetS by NHLBI/AHA criteria only. The overall agreement of IDF and NHLBI/AHA criteria was 81.5% (Kappa 0.59, p < 0.001).

The authors suggest that MetS prevalence in patients with symptomatic carotid disease was high regardless of criteria used for its diagnosis. Since some patients with known cardiovascular risk factors were lost by the use of IDF criteria it seems that NHLBI/AHA definition is more suitable for diagnosis of MetS.

The background and literature are sufficient. The discussion and the conclusions are of appropriate length and focus on the study findings.

**Comments**

1. This is a cross sectional observation confirmation study, with all inherent problems of such a design (difficulty to prove causality). This is clearly
acknowledged by the authors.

2. Were these patients on drug treatment for MetS criteria or other CVD risk factors (antihypertensive, hypolipidaemic, for obesity, for dysglycaemia or any other? Did that influence the values of risk factors and their correlations in any way? Please address.

1. Is the question posed by the authors well defined?
Yes

2. Are the methods appropriate and well described?
Yes

3. Are the data sound?
Yes

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Yes

6. Are limitations of the work clearly stated?
Yes

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
Yes.

8. Do the title and abstract accurately convey what has been found?
Yes

9. Is the writing acceptable?
Yes

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests