Reviewer’s report

Title: Prevalence and associated factors of subclinical atherosclerosis in rheumatoid arthritis at the university hospital of Kinshasa.

Version: 0 Date: 03 Feb 2018

Reviewer: Jeffrey A. Sparks

Reviewer's report:

Mulumba and colleagues perform a cross-sectional study of 75 patients with RA in the Democratic Republic of the Congo investigating associations between factors and atherosclerosis measured by carotid intima-media thickness.

Major comments:

1. Would re-word "determinants" as "associations" in this small cross-sectional study. The study design cannot find determinants. The entire study is limited related to the small sample size and cross-sectional nature. While mostly consistent with prior literature, there is limited novelty.

2. There are so few outcomes that the multivariable model in Table 8 is unreliable with extremely wide confidence intervals and very low cell sizes. For example, diabetes has a 95%CI of 0.3 to 180 so they have neither confirmed nor eliminated this as risk factor for atherosclerosis. The authors only have enough outcomes for 2 or 3 variables. There is no detail given to model building in the statistical analysis section.

3. Please eliminate the pie graph since frequency of the outcome is already displayed. Overall, there are too many tables for this relatively straightforward analysis.

Minor comments:

1. The measure and category of disease activity should be mentioned in the abstract rather than the raw score.

2. Similarly, severity of RA should be better defined in the abstract.
3. The odds ratios are not precise enough to report to the number of digits. Would round to the tenth digit.

4. Table 1 can be converted to text.

5. Disease activity is not typically part of a disease severity definition since they are different concepts.

6. Table 3 can be incorporated in Table 2.

7. P values can be taken out of Table 4. It is self-defined that those with atherosclerosis will have thicker carotid than those without atherosclerosis.

8. The lack of measurement of ACPA should be noted as a limitation since ACPA may be related to cardiovascular disease.

9. The methods mention linear regression but this analysis is not reported.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

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Please indicate the quality of language in the manuscript:

Needs some language corrections before being published
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