Reviewer's report

Title: Progression of coronary atherosclerotic plaque burden and relationship with adverse cardiovascular event in asymptomatic diabetic patients

Version: 0 Date: 17 Sep 2018

Reviewer: Luciano Agati

Reviewer's report:

This is an original paper aimed to observe changes in coronary plaque characteristics over time in asymptomatic diabetic patients. The study design and the results are interesting however I needs further clarification since the discussion is in part unclear

1. How the ethical committee gave you the permission to repeat 2 CT scan (potential harmful for radiations) in asymptomatic patients without significant stenosis?
2. Why all-cause mortality and not only cardiac mortality was considered as adverse event?
3. The cumulative event-free survival rates was 95% in patients with CACS>10 and 81% in those with CACS<10, thus patients with lower CACS are more at risk of adverse events in the follow-up. However in the final multivariable logistic predictive model the presence of CACS>10 is an independent predictor of adverse event at F/U. These 2 results are contradictory and absolutely unclear.
4. In the discussion section the Authors suggest "to determine whether the progression of plaque burden can be used for personalized treatment guidance and surveillance, especially in patients with high cardiovascular risk". However looking at Table 1 only few patients have an high pretest likelihood of CAD. Thus the final message of this paper is confusing pushing an over use of potentially harmful diagnostic technique in asymptomatic patients at low risk of CAD.
5. Only approximately 1/3 of patients were treated with statins and this data may explain the plaque progression. May the authors comment the reasons for this under treatment?

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.
No

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 recommend additional statistical review

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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