Reviewer's report

Title: Predictive Value of Coronary Calcifications for Future Cardiac Events in Asymptomatic Patients with Diabetes mellitus: A prospective Study in 716 Patients over 8 Years

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Reviewer: Paolo Raggi

Reviewer's report:

The topic of this investigation is interesting and worth of investigation albeit not novel. However, there is a solid language barrier that makes the reading of the article difficult. The authors will need to re-write most of the manuscript and likely enroll the help of an official translator prior to resubmission.

The authors should pay attention to sloppy mistakes that indicate poor care and attention to details. Several examples follow.

“These findings comply….”; do you mean compare?

What is “resp.”? you use all over the paper and it is not English

“Also it might be just these patients with diabetes mellitus sent for further diagnostics that profits most from improved risk stratifications”; do you mean diagnostic testing? Do not begin a sentence with “also”; finally, patients profit they not profitS.

“Also within a diabetic population patients with a high risk for future MI and CD could be identified by the determination of coronary calcifications independent of concomitant cardiovascular risk factors.” Never begin a sentence with “also”

“The prevalence (of diabetes) is expected to rise over 5 % in the next 10 years [1]. Thereby patients with diabetes mellitus show an increased risk of cardiovascular events [2].” What does this mean? An increase in PREVALENCE does not result in an increase in RISK but a shear increase in NUMBERS. Thereby or therefore?

FASTING (not eating) state, not FASTENING (tying) state

In the methods you state that you calculated the PROCAM score but you then discuss the UKPDS score; clarify and give appropriate references.

Methods, what does this mean: “The significance level was set at 0.05/4 = 0.0125 resp. 0.05/2 = 0.025.”?

Results: “.81 ± 1.1 years (range 7.1 to 9.4 years)”; do you mean 8.1 not 0.81?
Avoid run-on sentences without punctuation and connection. Here is an example: “No patient with exclusion of cardiovascular calcifications suffered from MI or CD during the observation period, only two patients with exclusion of coronary calcifications underwent coronary revascularisation, the events rates were significantly lower compared to patients with coronary calcifications, p = 0.009, s. table 2.” What is “s. table 2”?

“With increasing calcium score the event free survival decreased continuously from a cumulative incidence of 3.9 % for patients with scores between 0 – 10 to a cumulative incidence of 42.7 % for patients with scores above 400.” Do you have this backward? Event FREE cannot be lower with absent or minimal score compared to high scores.

“According to Framingham score and UKPDS score most patients with MI were considered as intermediate risk patients, 57 % resp. 60 % . 34 % resp. 36 % percent were assigned to the high risk group. 9 % resp. 4 % percent of patients with MI would have been considered as low risk patients.” Very messy, rephrase

“Also an increase of Framingham score and UKPDS score was associated with an increase of relative risk, 6.0 for a ten unit increase of Framingham score and 7.1 for a ten unit increase of UKPDS score.” 10 absolute point increase or 10% risk increase? Avoid ALSO at the beginning of a sentence

Do not repeat your results in the discussion; shorten this portion of your manuscript to no more than 2 double spaced pages with a “tight discussion” of the importance of your findings not the findings themselves. Compare your results with other papers on CV disease and outcome in diabetes; elaborate on how the data should be used by practicing physicians etc.

Discussion: “This assumption is also being supported by the significantly higher event rate for CR, MI, and CD of patients with an Agatston score above 400. In addition future MI or CD could be excluded in patients without coronary calcifications independent of concomitant cardiovascular risk factors (Tab. 2). The patients with cardiovascular events showed significantly higher Agatston scores than patients without cardiovascular events. Again this could be observed independently of concomitant risk factors in all age groups indicating that coronary calcifications do not only represent the presence of cardiovascular risk factors, but reflect the patient’s individual extent of atherosclerosis. Therefore coronary calcifications can be considered as an adequate tool for the individual prediction of cardiovascular events

and might be superior to conventional risk stratification.” This is a good example of gyrate wording and unclear delivery. Just state in a few, direct sentences what you intend to say and briefly make your point.
Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

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'