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

Version: 2 Date: 19 June 2008

Reviewer: Vijay Anand V Dhakshinamurthy

Reviewer's report:

The authors prospectively studied the prognostic value of coronary calcium score in 716 asymptomatic patients with diabetes mellitus during a mean follow-up of 8.1 years. As shown in previous publications, CAC>400 AU was associated with a significantly higher annualised cardiovascular event rate. Compared to the Framingham risk score and UKPDS score, the Agatston score showed a higher diagnostic accuracy for the prediction of cardiovascular events.

The manuscript would be undoubtedly of interest to the readers of the journal. It strengthens the existing body of data on the prognostic value of coronary calcium measurements in patients with diabetes.

I have no major issues.

I suggest the following minor essential revisions.

1. It is not indicated whether the study population is primarily composed of type 2 diabetics or a combination of type 1 and type 2.
2. Reference 5 and 15 are the same.
3. In Table 1, the percentages of patients in different blood pressure & cholesterol subgroups are not provided as stated. The last category within blood pressure reads incorrectly as untreated with BP < 140/90.
4. Page 9 Line 2: The breakdown of those underwent PCI and CABG (provided in brackets) indicates that 97 patients underwent revascularisation.
5. Page 7, First line of Last paragraph (Under subheading Statistical analysis): This incorrectly states that ROC analysis was performed to examine the discriminatory power of Agatston score, ATP III and Procam scores.
6. It would be helpful to provide the event rates/Relative risk in different CAC score categories in Figure 1.
7. Table 2: It is stated in the results section that there was no significant age difference between patients with or without cardiac events. However the age differences are incorrectly marked as significant in Table 2. Similarly it would be helpful to indicate that the event rates were higher in patients with CAC>400.
8. Table 3: It would be helpful to denote whether the relative risks are significantly higher in the different cardiovascular risk categories.
9. Finally the manuscript requires various minor language/gramatical corrections throughout.

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

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

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

**Declaration of competing interests:**

I do not have any competing interests