Reviewer’s report

Title: The serum TGF-beta1 and Smad3 levels are closely associated with coronary artery disease

Version: 1 Date: 10 December 2013

Reviewer: Yvan Devaux

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This study by Chen and colleagues addresses the association between circulating levels of TGFB1 and Smad3 and the severity of CAD. 279 patients with CAD and 268 controls were included. While this study has been well conducted, it suffers from some limitations. Also, the drafting of the manuscript could be substantially improved. The following recommendations may help rendering this manuscript suitable for publication.

Major Compulsory Revisions

1. Study population. The control population significantly differs from the cases, in terms of age and cardiovascular risk factors. This should be indicated as a major limitation in the Discussion (not only in the Results).

2. It is unclear why the authors compared the biomarker value of TGFB1 and Smad3 to that of Lpa, ApoA1 (…). Comparison with cardiac troponins and CK should be included, as well as statistical comparisons between the different AUCs (e.g. by the method of DeLong).

3. The concluding statement that “serum TGFB1 and Smad3 levels may be more useful biomarkers than the currently used biochemical indicators” should be turned down.

Minor Essential Revisions

1. Detection limits and accuracy of the ELISA used to measure TGFB1 and Smad3 should be mentioned in the Methods section.

2. Legend of Fig 1 should contain information about statistical significance.

3. Fig 2 is not correctly referenced in the Result section. Also, showing different protein levels does not imply that the proteins “play important roles in the CAD pathogenesis”.

4. Group comparisons for P1 and P2 in Table 2 should be indicated as a footnote to the Table.

5. Fig 4. AUCs of 0.68 and 0.71 indicate very modest biomarker value. The corresponding statement in the Results section should be tampered.

Finally, if data are available, investigation of the prognostic value of TGFB1 and Smad3 would strongly increase the scope of the study.
Level of interest: An article whose findings are important to those with closely related research interests

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 declare that I have no competing interests