Reviewer's report

Title: Validity of Electron Beam Computed Tomography for Coronary Artery Disease: A Systematic Review and Meta-analysis

Version: 1 Date: 5 September 2007

Reviewer: Zhonghua Sun

Reviewer's report:

General

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. The question posed by the authors is not new, as the MSCT is another useful and less-invasive technique for calcium scoring and diagnosis of CAD.

2. The methods of the study are appropriate, and well described. I feel like the section of statistical analysis on page 4 is a little bit weak and more detailed description about the methodology should be provided here as this is a systematic review and meta-analysis.

3. Data selection and extraction are sound and well-controlled. However, there are a few points which need to be clarified:
   a. EBCT protocol on page 5, the exact number of studies following the Agatston method for scoring should be provided;
   b. EBCT protocol on page 5, 2nd line, suggesting changing “a signal of greater than 130 HU..” to “a threshold of greater than 130 HU..”;
   c. EBCT protocol on page, 5th line, suggest change “the scan time per slice was…” to “the scan time per rotation was…”.

4. The manuscript adheres to the relevant standards for reporting and data deposition.

5. General discussion is fine. I am concerned about the discussion or statements made in the 2nd and 3rd paragraphs on page 9, as the results were based on analysis of a number of studies which lack of uniform criteria. The validity of the study findings would be questioned.

6. The title and abstract accurately convey what has been found in the study.

7. The writing is acceptable.

Additional comments:

Some references are missing and were not listed in the references, e.g, Raggi (2000), Baumgart (1997), Yao (2000), Knez (2004).
References in tables 3-5 need to be revised in order to locate them easily in the reference list. Suggest changing the numbers in front of the references to the numbers cited in the text.

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

Which journal?: Appropriate or potentially appropriate for BMC Medicine: an article of importance in its field

What next?: Accept for publication in BMC Medicine after minor essential revisions

Quality of written English: Acceptable

Statistical review: Yes