Reviewer’s report

Title: Multidetector CT Angiography for assessment of in-stent restenosis: Meta-analysis of Diagnostic Performance

Version: 1 Date: 29 October 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)

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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)

Abstract

In Conclusion, the statement that the diagnostic performance is influenced by data collection and reporting is debatable. Please revise it as I believe the diagnostic performance of MDCTA in coronary in-stent restenosis is mainly determined by the strut thickness, exclusion of non-assessable stents.

Keywords are missing.

Background: Fine.

Materials and Methods

Data selection: Study selection should range from 1998 to 2006 as 16 MDCT was introduced in 1998.

On p 8, where should be were.

Data extraction: “where” should be corrected to “were”.

Data synthesis and statistical analysis: This section is too long and I suggest shortening it to some extent.

Results

Data synthesis and analysis: correct “where” in the sentence of A total of 1039 stent “were”.

What the pooled percentage of non-assessable stents in these studies reviewed? Is there any significant difference between 16-slice and 64-slice CT in terms of sensitivity and specificity? This should be provided in the results.
Are there any other factors involved in the image quality of MDCTA for assessment of in-stent restenosis, e.g. severe calcification, motion artifacts? It was unclear as to the number of studies using edge-enhancing kernel, and this needs to be clarified.

Discussion

Authors discussed that thick struts, stent size and material affect the diagnostic capability of MDCTA in detection of ISR, however, relevant information was not provided in the Results. Stent material (gold) was reported to be a challenge to evaluate, however, these aspects are insufficiently addressed in the current study.

References: Fine.

Figures: relevant. Figures 1-8 are repeatedly presented twice in the manuscript.

Discretionary Revisions (which the author can choose to ignore)

What next?: Accept after minor essential revisions

Level of interest: An article of outstanding merit and interest in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare that I have no competing interests’