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Flat C, 23/F., Lucky Plaza,
315-321 Lockhart Road,
Wan Chai, Hong Kong, China

ESPS Peer-review Report

Name of Journal: World Journal of Radiology

Ms: 3387

Title: Clinical Evaluation of Low, High and Mixed Voltage Cardiac Computed Tomography Angiography for Detection of Chronic Myocardial Infarction

Reviewer code: 00060494

Science editor: l.l.wen@wjgnet.com

Date sent for review: 2013-04-26 20:27

Date reviewed: 2013-04-28 11:18

| CLASSIFICATION | LANGUAGE EVALUATION | RECOMMENDATION | CONCLUSION |
|--|--|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent) | <input type="checkbox"/> Grade A: Priority Publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B (Very good) | <input type="checkbox"/> Grade B: minor language polishing | <input type="checkbox"/> Existed | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C (Good) | <input type="checkbox"/> Grade C: a great deal of language polishing | <input type="checkbox"/> No records | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D (Fair) | <input type="checkbox"/> Grade D: rejected | BPG Search: | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade E (Poor) | | <input type="checkbox"/> Existed | <input type="checkbox"/> Minor revision |
| | | <input type="checkbox"/> No records | <input type="checkbox"/> Major revision |

COMMENTS

COMMENTS TO AUTHORS:

This article evaluated the Low, High and Mixed Voltage Cardiac Computed Tomography Angiography for Detection of Chronic Myocardial Infarction in 24 patients. 1. In your paper, how do you define the enrolled patients with old MI? By coronary study? or just by Hx of electronic records? In the results, it showed that not all patient had a definite CAD diagnosis by coronary angiography. Under this situation, how can you showed the statistical data? What is your standard data in comparison with the CCTA? 2. There are many easier tools to evaluate and confirm the patient with old MI, eg: EKG, echo and cardiac nuclear medicine. It is not deniable that this paper had its academic value but is less useness in clinical applications. Can you give more benefits of CCTA in confirm old MI than other methods in the conclusion section to the readers?



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ESPS Peer-review Report

Name of Journal: World Journal of Radiology

Ms: 3387

Title: Clinical Evaluation of Low, High and Mixed Voltage Cardiac Computed Tomography Angiography for Detection of Chronic Myocardial Infarction

Reviewer code: 02468825

Science editor: l.l.wen@wjgnet.com

Date sent for review: 2013-04-26 20:27

Date reviewed: 2013-05-03 21:40

| CLASSIFICATION | LANGUAGE EVALUATION | RECOMMENDATION | CONCLUSION |
|--|---|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent) | <input type="checkbox"/> Grade A: Priority Publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B (Very good) | <input checked="" type="checkbox"/> Grade B: minor language polishing | <input type="checkbox"/> Existed | <input type="checkbox"/> High priority for publication |
| <input checked="" type="checkbox"/> Grade C (Good) | <input type="checkbox"/> Grade C: a great deal of language polishing | <input type="checkbox"/> No records | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D (Fair) | <input type="checkbox"/> Grade D: rejected | BPG Search: | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E (Poor) | | <input type="checkbox"/> Existed | <input type="checkbox"/> Major revision |
| | | <input type="checkbox"/> No records | |

COMMENTS

COMMENTS TO AUTHORS:

This study evaluated diagnostic accuracy of high, low and mixed voltage (dual energy) computed tomography (DECT) for detection of chronic myocardial infarction (MI) and the authors found that CT with low voltage acquisition demonstrates superior diagnostic performance when compared to higher and mixed voltage acquisitions for detection of chronic MI. This is a interesting study. However, I have several concerns: 1) The title: please identify the article as a study of diagnostic accuracy. 2) In the third universal definition of MI (2012), MI was classified as acute MI and prior MI. So I suggest use the term Prior MI instead of chronic MI. 3) About the reference standard: "Segments graded as hypokinetic, akinetic or dyskinetic were considered abnormal and classified as infarct segments....." This definition of infarct segment may be confounding since several other conditions can cause abnormal wall motion, such as bundle branch block. The definition of infarct segments should be "imaging evidence of a region of loss of viable myocardium that is thinned and fails to contract" (Thygesen K, Circulation. 2012 Oct 16;126(16):2020-35.) 4) "Datasets were evaluated in a random order in consensus by two experienced cardiac readers...." Interobserver variability in the interpretation of data should be report (recommend using kappa statistic including 95% confidence intervals.) 5) The following question should be discussed in the Discussion section. What is the advantage of current method compared with ECHO, since ECHO is a non-invasive, radio-free, and convenient method to identified infarct segment. The safety of index test, including contrast induced nephropathy and radiation exposure.



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ESPS Peer-review Report

Name of Journal: World Journal of Radiology

Ms: 3387

Title: Clinical Evaluation of Low, High and Mixed Voltage Cardiac Computed Tomography Angiography for Detection of Chronic Myocardial Infarction

Reviewer code: 02458760

Science editor: l.l.wen@wjgnet.com

Date sent for review: 2013-04-26 20:27

Date reviewed: 2013-05-07 22:57

| CLASSIFICATION | LANGUAGE EVALUATION | RECOMMENDATION | CONCLUSION |
|--|--|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent) | <input type="checkbox"/> Grade A: Priority Publishing | Google Search: | <input type="checkbox"/> Accept |
| <input type="checkbox"/> Grade B (Very good) | <input type="checkbox"/> Grade B: minor language polishing | <input type="checkbox"/> Existed | <input type="checkbox"/> High priority for publication |
| <input type="checkbox"/> Grade C (Good) | <input type="checkbox"/> Grade C: a great deal of language polishing | <input type="checkbox"/> No records | <input type="checkbox"/> Rejection |
| <input type="checkbox"/> Grade D (Fair) | <input type="checkbox"/> Grade D: rejected | BPG Search: | <input type="checkbox"/> Minor revision |
| <input type="checkbox"/> Grade E (Poor) | | <input type="checkbox"/> Existed | <input type="checkbox"/> Major revision |
| | | <input type="checkbox"/> No records | |

COMMENTS

COMMENTS TO AUTHORS:

In this manuscript Srichai et al. analyzed "the diagnostic accuracy of high, low and mixed voltage (dual energy) computed tomography for detection of chronic myocardial infarction". Interestingly they found that CT with low voltage acquisition demonstrates superior diagnostic performance when compared to higher and mixed voltage acquisitions for detection of chronic myocardial infarction. The paper is well written and the topic is interesting, however the Authors should consider the following points: - please add the p values for comparisons between low and high voltage acquisitions in the result section, Table 2 and Figures 3-5 - a sample size calculation is lacking - Please report medications in Table 1



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ESPS Peer-review Report

Name of Journal: World Journal of Radiology

Ms: 3387

Title: Clinical Evaluation of Low, High and Mixed Voltage Cardiac Computed Tomography Angiography for Detection of Chronic Myocardial Infarction

Reviewer code: 00631937

Science editor: l.l.wen@wjgnet.com

Date sent for review: 2013-04-26 20:27

Date reviewed: 2013-05-08 12:24

| CLASSIFICATION | LANGUAGE EVALUATION | RECOMMENDATION | CONCLUSION |
|--|--|-------------------------------------|--|
| <input type="checkbox"/> Grade A (Excellent) | <input checked="" type="checkbox"/> Grade A: Priority Publishing | Google Search: | <input type="checkbox"/> Accept |
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| | | <input type="checkbox"/> No records | <input type="checkbox"/> Major revision |

COMMENTS

COMMENTS TO AUTHORS:

In this manuscript, Srichai and Colleagues evaluated the diagnostic accuracy of high, low and mixed voltage (dual energy) computed tomography (DECT) for detection of chronic myocardial infarction (MI). The authors found that CT with low voltage acquisition demonstrates superior diagnostic performance when compared to higher and mixed voltage acquisitions for detection of chronic MI. Overall, the manuscript is very well written and easy to follow. Additionally, this is a well designed study and the results are interesting. I do have a minor suggestion that may improve the submission.

1. Although in the results section, the authors mention that CCTA assigned territories were confirmed by one or more additional imaging studies (echocardiography [n=15], SPECT [n=5] or CMR [n=1]), the comparison to other commonly used techniques such as the ones mentioned is not fully discussed. It would be interesting to elaborate on how the DECT imaging compares to other imaging tools.