

PEER-REVIEW REPORT

Name of journal: World Journal of Radiology

Manuscript NO: 38129

Title: Magnetic resonance angiography for the primary diagnosis of pulmonary embolism: A review from the international workshop for pulmonary functional imaging

Reviewer's code: 02904354

Reviewer's country: China

Science editor: Li-Jun Cui

Date sent for review: 2018-02-28

Date reviewed: 2018-03-02

Review time: 2 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

This review paper is well written and prepared. I recommend its potential publication in this journal. Some minor grammar and spelling errors and use of abbreviations should be revised. Please see the words marked by yellow in the attachment. I also suggest to



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add the discussion regarding weakness of MRA and CE-MRA. It is often difficult for some elderly patients that I treated to experience the noise produced by MR. Is there any evidence? Additionally, I am not a skilled expert in the radiological diagnosis of PE. The editor should invite radiological experts in this field to further review this paper.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
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- ☐ Plagiarism
- ☐ [Y] No

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- ☐ [Y] No

PEER-REVIEW REPORT

Name of journal: World Journal of Radiology

Manuscript NO: 38129

Title: Magnetic resonance angiography for the primary diagnosis of pulmonary embolism: A review from the international workshop for pulmonary functional imaging

Reviewer's code: 03650239

Reviewer's country: United States

Science editor: Li-Jun Cui

Date sent for review: 2018-02-28

Date reviewed: 2018-03-08

Review time: 8 Days

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors' manuscript provides a detailed review of contrast-enhanced magnetic resonance angiography (CE-MRA) in the diagnosis of pulmonary embolism. Due to various consideration, such as an allergy to iodinated contrast, CE-MRA is an important



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tool in a subset of patients. Although the topic is relevant, I believe several points should be addressed prior to publication. 1. In the abstract, the authors mention that outcomes data on V/Q scan show they are effective alternatives. V/Q scans are not the major focus of the manuscript, and discussion of these tests is primarily to show how they compared to CTA or CE-MRA. I don't believe there is any discussion of patient outcomes regarding V/Q scan in the manuscript. Therefore, I would recommend removing this mention from the abstract. 2. In the introduction, the authors provide appropriate use ratings for different imaging modalities according to professional society guidelines. I would recommend providing a definition for these ratings. For instance, is 2/10 good or bad? 3. In the discussion of the PIOPED study, the authors mention a high rate of technically inadequate studies. Is this thought to be an issue with the centers or the imaging modality itself? 4. On page 8, the authors discuss a trial of acenocoumarol in VTE. This is an extremely old trial in a small number of patients, and I think the authors' interpretation are somewhat flawed. We commonly treated VTE with oral anticoagulants, and heparin is not absolutely necessary. I recommend using more contemporary trials or perhaps eliminating this discussion altogether, as it somewhat deviates from the point of the manuscript. 5. On page 9, the authors mention that CE-MRA is useful for follow up scans on PE. Follow up scans are not routinely performed and not recommended in guidelines. Therefore, I'm not sure this can be considered a strength of CE-MRA. 6. On page 10, the authors mention a much lower inadequate study rate in a University of Wisconsin study compared to PIOPED. The criteria for an inadequate study in the retrospective study are very different from that of PIOPED, and I think this should be acknowledged in the discussion. 7. I concede CE-MRA can be useful in patients with renal insufficiency and contrast allergies. However, I'm not sure why it should be considered at all in patients with a low-to-intermediate pretest probability and negative D-dimer. The



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guidelines the authors cite state this would be an inappropriate test. CE-MRA is much less available than CTA and is more costly. Awaiting such a study would typically lead to a longer emergency room or hospital stay. Importantly, it's not clear why such patients need contrast-enhanced imaging at all. I do not think the authors make it clear why CE-MRA is appropriate in this specific patient population. I think this discussion should be expanded. Alternatively, the authors could focus on other patient groups where this imaging would be useful.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
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