

PEER-REVIEW REPORT

Name of journal: *World Journal of Clinical Cases*

Manuscript NO: 72705

Title: Three-dimensional arterial spin labeling and diffusion kurtosis imaging in evaluating perfusion and infarct area size in acute cerebral ischemia

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06086664

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Assistant Professor

Reviewer's Country/Territory: Canada

Author's Country/Territory: China

Manuscript submission date: 2022-01-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-12 01:19

Reviewer performed review: 2022-01-25 09:39

Review time: 13 Days and 8 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**Peer-reviewer
statements**

Peer-Review: [☒] Anonymous [☐] Onymous
Conflicts-of-Interest: [☐] Yes [☒] No

SPECIFIC COMMENTS TO AUTHORS

The topic of this work is interesting. MRI has important advantages in the diagnosis of central nervous system diseases due to its high soft tissue resolution. 3DASL can accurately evaluate CBF, DKI is a clinical imaging method used to describe the non-Gaussian diffusion of water molecules in tissues; it can accurately reflect the complexity and heterogeneity of neural tissue microstructure by quantifying the diffusion characteristics of water molecules. The manuscript is focused on investigate the diagnostic value of magnetic resonance multi-delay 3DASL and DKI in evaluating the perfusion and infarct area size in patients with acute cerebral ischemia. The design of the study is very good. The results are excellent. Their conclusion might provide additional information for the accurate diagnosis of cerebral infarction. The manuscript is well written and well organized, and I recommend accepting this manuscript for publication after a minor language editing. Sincerely

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Reviewer's code: 06086585

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: Slovenia

Author's Country/Territory: China

Manuscript submission date: 2022-01-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-12 01:18

Reviewer performed review: 2022-01-25 09:40

Review time: 13 Days and 8 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
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SPECIFIC COMMENTS TO AUTHORS

Authors proved that 3DASL and DKI has important diagnostic value in evaluating perfusion and infarct area size in patients with acute cerebral ischemia. The difference in DKI parameters between the focal and control areas in patients with acute ischemic cerebral infarction is significant, and 3DASL can effectively determine the changes in perfusion levels in the lesion area, which is important for the diagnosis of infarction. Overall, the study is very well designed and the results are very interesting. The sample size is enough and methods are very clear. Discussion is good. I have a minor comment, the Figure 4 needs to be clearly described in the text.