



PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

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Title: Detachable string magnetically controlled capsule endoscopy for the noninvasive diagnosis of esophageal diseases: A prospective, blind clinical study

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

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Reviewer's code: 05230413

Position: Peer Reviewer

Academic degree: MD

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Reviewer chosen by: AI Technique

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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 Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation



Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input 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 checked="" type="checkbox"/> Accept (General priority) <input 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: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The reasons people use capsule endoscopy are two: first, its comfort, and second, its small size, which allows it to reach areas not accessible by traditional endoscopy. With a resolution of 320x320, CE captures more than 30,000 images. Traditionally, the esophagus is considered an easily accessible area with EGD. However, the discomfort associated with EGD makes it an obstacle for many patients to tolerate. In this context, the ds-MCE proposed by the authors seems to be an excellent suggestion. Typically, when a traditional CE is performed, CE spends only a few seconds in the esophagus, limiting the acquisition of accurate and sufficient images. However, ds-MCE can extend the duration of esophageal retention, enabling the collection of more image data. Despite these advantages, the necessity of new discoveries and attempts should still be considered. The N-scope, which allows for comfortable viewing of the esophagus at a lower resolution, already exists. While it is less comfortable than ds-MCE and more so than traditional EGD, the N-scope is often used for quick and convenient viewing of the esophagus. From this perspective, we gently suggest slightly revising the discussion on the development of diagnostic tools, considering the necessity of development. Points to



consider are: 1) Is a diagnostic tool of interest? If there is no existing tool for the issue, then a new tool is needed. 2) Who requires this tool? 3) Has the tool been proven to provide high-quality data from relevant subjects? 4) Is there no existing diagnostic tool to validate and update from? 5) Is the sample size adequate to define the diagnostic characteristics of the tool? Secondly, regarding Figure 3, it might be beneficial to change the way CE and EGD photos are presented. Photos of ds-MCE and EGD might be familiar to endoscopists and attract less interest. Therefore, showing corresponding lesions in ds-MCE to those identified in EGD may better demonstrate the utility of ds-MCE to endoscopists. The presented images of EGD exceed a resolution of 600x600, while ds-MCE images are around 300x300. Comparing ds-MCE images at lower resolution and without the manipulation of air inflation appears important. As an endoscopist, I can roughly anticipate what images will be compared, but I suggest this from an academic and formal perspective. Thirdly, considering the lower resolution and the impossibility of deliberate manipulation with ds-MCE again, there are concerns about false negative cases. In this study, the sensitivity is around 85%, indicating a 25% false negative rate. For esophageal lesions, a false negative in the case of a tiny esophageal ulcer may not be significant. However, for esophageal polyps or associated cancer lesions, the cost of a false negative is very high. The utility of the diagnostic tool may need to be reassessed based on the cost associated with false negatives and false positives in the examined lesions. Although this study has a small sample size and makes it difficult to reanalyze from a cost perspective, mentioning this briefly in the discussion for future checks with a larger sample size would be advisable.