

### **Reviewers' comments**

I like this paper a lot, it is very important that with increasing healthcare costs that the most is made of expensive technology so clinicians can extract as much useful information from testing whilst patients get the best possible diagnostics using the least invasive methods to help guide effective treatment. I have only a couple of minor points.

Given the fairly high prevalence of hiatal hernia in the general population I would have expected this to be reported more. Was this just an omission in terms of it being considered a significant finding or that no patients had a hiatus hernia.

The sensitivity in visualising the Z-Line was lower than other factors could the authors explain why.

What were the exclusion criteria for patients having the capsule studies in terms of safety such as dysphagia? Did all patients have a patency capsule first?

Did any patients have data from OGD which could be used to correlate previous diagnosis with visualisation.

Are there any other recommendations in terms of improving visualisation from changes in position and posture that the authors might believe could improve visualisation?

Responds to the comments:

We have studied comments carefully and have made correction according to the comments. Thank you very much for reviewing this article.

Comment 1: Given the fairly high prevalence of hiatal hernia in the general population I would have expected this to be reported more. Was this just an omission in terms of it being considered a significant finding or that no patients had a hiatus hernia.

Reply 1: Thank you very much for your kind and constructive suggestion. It is really true as you said that hiatal hernia is a common disease. And when we receive your suggestion, we viewed the images again and found that we cannot diagnosis hiatal hernia in the 127 subjects. We think the following reasons might be responsible in our study: First, it is hard to see the hernial sac in fundus because the capsule endoscopy cannot moving closer as we want. Second, the capsule get through the esophagus fast.

The mean esophageal transit time was  $31.5 \pm 34.0$  (range 1-181) seconds in our study, so it is not easy to see the length between EGJ and SCJ, and the condition of openness for the cardia. Third, the fact that a majority of healthy subjects or patients without upper gastrointestinal discomfort were enrolled may decrease the positive findings. And indeed we found cardiochalasia in some patients, and we just described this condition and suggested these patients to do standard OGD and esophageal manometry. Furthermore, we also searched the lesions that found by other gastric capsule endoscopy, we found that hiatal hernia was seldomly diagnosed. But for esophageal capsule endoscopy, like PillCam ESO 2, hiatal hernia was sometimes diagnosed. However, current diagnostic rates of capsule endoscopy for hiatal hernia are not yet accurate enough for application in clinical practice.

Changes in the text: We have modified our text as advised (see Page 11, line 249)

Comment 2: The sensitivity in visualizing the Z-Line was lower than other factors could the authors explain why.

Reply 2: As far as we can see, the reasons are as follows: First, the capsule colonoscopy got through the esophagus fast, the mean esophageal transit time was  $31.5 \pm 34.0$  (range 1-181) seconds in our study. Second, we can just see the Z-line when the cardia was open well.

Changes in the text: We have modified our text as advised (see Page 10, line 219-220)

Comment 3: What were the exclusion criteria for patients having the capsule studies in terms of safety such as dysphagia? Did all patients have a patency capsule first?

Reply 3: Exclusion criteria were dysphagia or any swallowing disorder, life-threatening conditions, current pregnancy, or contraindications for bowel preparation and prokinetic agents used in the study.

Changes in the text: We have modified our text as advised (see Page 6-7, line 131-133)

Comment 4: Did any patients have data from OGD which could be used to correlate previous diagnosis with visualisation.

Reply 4: Yes, for some patients with chronic gastritis who did OGD before, we could saw the comparison of these patients. However, the participants did not undergo conventional gastroscopy to verify the lesions simultaneously.

Comment 5: Are there any other recommendations in terms of improving visualisation from changes in position and posture that the authors might believe could improve visualisation?

Reply 4: As far as we can see, there are two factors are also very important: First, we should guarantee that patients drink sufficient amount of water to expand the cavity before the examination. Second, the cleanliness of gastrointestinal duct is a very important factor that may affect the examination, so we use simethicone, which is used as a defoaming agent, to help gastrointestinal preparation.

Comment 6: Was the study truly retrospective if patients all performed these postural changes in order to improve visualisation, this must have been conceive prospectively as it is not normal part of the procedure protocol?

Reply 4: We performed this procedure in our endoscopy center in routine capsule endoscopy examination based on the experience that we got from other capsule endoscopy like MCCG (Magnetic-Guided Capsule Endoscopy). And this study was retrospective.

Comment 7: There are some typographic and grammatical error that will need some tidying up before publication.

Reply 5: Thank you so much for you kind suggestion. We edited this article for proper English language, grammar, punctuation, spelling, and overall style at AJE. Thank you very much!