

## ANSWERING REVIEWERS



April 29, 2015

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 17170-review.doc).

**Title:** Ligation-assisted endoscopic submucosal resection with circumferential mucosal incision for duodenal carcinoid tumor

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**Name of Journal:** *World Journal of Gastroenterology*

**ESPS Manuscript NO:** 17170

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

- (1) I think that ESD is a procedure composed of the 2 phases: circumferential mucosal incision and submucosal dissection under the lesion. In this procedure, only circumferential incision is performed. So, I feel a little strange referring to the procedure as ESD-L. Is it popular to call this technique ESD-L? Please clarify in more detail.

Answer: We thank the Reviewer for this pertinent comment. As you pointed out, we also thought in a question referring to the procedure as ESD-L. In this manuscript, we described about the paper of ESD-L, "Shida T et al. Endoscopic submucosal dissection with a ligation device for the treatment of rectal carcinoid tumor. *Endoscopy* 2012; **44**: E4-E5". Exactly, in this procedure, only circumferential mucosal incision was performed. So, we changed the naming as ligation-assisted endoscopic submucosal resection with circumferential mucosal incision. Furthermore, we have added the following text (lines 16-19, page 5)

"Another important consideration is the report by Shida T et al. who performed ESD with a ligation device (ESD-L)<sup>[10]</sup>. In our opinion, naming the procedure as ESD-L is not appropriate because it is not performed to dissect the mucosa. Consequently, we would argue that ESMR-L with CMI is more appropriate."

- (2) There are some reports of endoscopic resection such as conventional EMR, ESMR-L, and ESD, for rectal carcinoid. However, duodenal carcinoids are difficult to resect endoscopically, because the wall of duodenum is thinner than that of rectum and endoscope maneuverability is limited within the narrow working space. Moreover, I think that band ligation of duodenal wall has a potential risk of muscular involvement. Please discuss differences in organ characteristics in more detail.

Answer: We have added the following text (lines 1-7, page 6)

"In ESMR-L with CMI, the tumor is cut by snare beneath the rubber band after band ligation.

Therefore, there is a possible of perforation in case of involving of the muscularis. It is necessary to identify involving and pulling of the muscularis. Especially, there is a possible band ligation to involve the muscularis of the duodenum for the thin of the duodenal wall. If the muscularis is involved by the ligation band, it is necessary to cut the lesion over the rubber band for avoiding perforation. However, histopathologic examination may be affected by it."

- (3) You mentioned that it may be impossible to dissect fibrosis of the submucosa by ESD or to suck the tumor through a ligation device in cases of submucosa with high fibrosis. However, I think the advantage of ESD is that tumors can be resected endoscopically in an en bloc fashion regardless of size or the existence of fibrosis. Please discuss in more detail.

Answer: We have added the following text (lines 7-12, page 6)

"The advantage of ESD is that tumors can be resected endoscopically, en bloc, and regardless of their size or the presence of fibrosis. However, considerable skill is needed to maintain an appropriate line of dissection when there is extensive fibrosis of the submucosa. In such setting, there is an increased risk of exposure of the lower tumor margin at the time of dissection, which can influence the histopathological evaluation. In contrast, ESMR-L with CMI ensures that tumor involvement in the deeper tissue level is included."

- (4) You mentioned that you attempted submucosal dissection but could not do so because of high fibrosis. The duodenal wall is generally thin and specific such as brunner's glands, so it is sometimes difficult to lift the tumor by submucosal injection. Did histopathological examination show carcinoid tumor with severe fibrosis? In Figure3, it is difficult to recognize the fibrosis. Please add more clear histopathological picture.

Answer: We have added the following text (lines 11-15, page 5)

"However, as observed in the present case, submucosal dissection may be impossible when complicated by severe fibrosis. Although histopathological examination of the resected tumor failed to show severe fibrosis, we believe this resulted from the influence of hyperplasia of Brunner's glands. It is believed that submucosal injection is particularly difficult in the duodenal bulb in comparison with that in other parts of the duodenum because of the presence of many Brunner's glands."

- (5) Key words should be reduced Running title Endoscopic submucosal dissection with a ligation device should be written not as abbreviation.

Answer: We changed Key words and Running title.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

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