

## Format for ANSWERING REVIEWERS



July 4, 2017

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 34586 revised highlighted.doc).

**Title: Predictive factors for the failure of endoscopic stent-in-stent self-expandable metallic stent placement to treat malignant hilar biliary obstruction**

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

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

1 Format has been updated

2 Revisions have been made according to the suggestions of the reviewers

### **Reviewer 00047664**

*This is an interesting retrospective study attempting to identify predictive factors for unsuccessful deployment of a second stent when placement of multiple metal stents (MS) was attempted in the stent-in-stent manner for unresectable malignant perihilar biliary obstruction. The authors evaluated many factors, including etiology, findings of cholangiography, and procedural factors, and concluded that the duller (larger) angle between the first deployed stent and the target duct for next placement was the important factor. This is a very interesting issue and your conclusion seems informative. I found some minor problems. Please consider the following comments and suggestions for appropriate revision*

*Comment 1: I cannot understand the meaning of "the first retained SEMS." Please consider changing or deleting the word "retained."*

Response: Thank you for your comment. I apologize for mistakes in English language usage. I have changed "retained" to "implanted".

*Comment 2: Please describe utilized guidewires in the Methods part.*

Response: Thank you for the valuable comment. We added a description of guidewires used in this study (Lines 162-165).

***Comment 3: Please describe profiles of endoscopists(s) in the Methods part.***

Response: Thank you for the valuable comment. We added descriptions of the profiles of the endoscopists (Lines 150-152).

***Comment 4: In the Results part, were “49.3” and “75.0” average numbers in each group? I recommend changing them to the median values with the ranges or the 95% confidence intervals. As the cut-off value of 49.7 degrees indicated by ROC curve evaluation was close to 49.3 degrees of the mean value in the success group, the samples must be normally distributed.***

Response: We apologize for this confusing point. The angles between the target biliary duct stricture and the first SEMS were normally distributed in both the success and failure groups. Therefore, we described the data in terms of the mean  $\pm$  SD. We have changed them to median values with ranges (Line 214, Table 1).

***Comment 5: Please consider describing details of device usage. Readers would probably like to know the number of patients in whom a catheter or a dilation device could be inserted after failed insertion of a guidewire. Additionally, could you describe, if possible, the reasons why other types of dilators were not attempted, the reasons why a balloon catheter was not used in 10 patients for cell dilation of the first stent and in 12 patients for lumen dilation in the failure group, the number of patients in whom insertion of just one device was attempted? Additionally, could you comment about the reasons why another device was not used after failure of insertion of one device?***

Response: Thank you for the valuable comment. We finished the procedure if we failed to insert the guidewire (Lines 158-159). The dilation devices were chosen independently by each endoscopist (Line 160-161). We could not determine any definite strategies used by each endoscopist based on the past operative notes. We have recently used dilation devices in a given order (catheter-dilator-dilation balloon) if insertion of the second SEMS is difficult. However, sometimes, a very thin balloon catheter is used first. We regret that we cannot respond to your question regarding any definite strategies. We have added a comparison of the number of used dilation devices (0: no dilation device was used-3: catheter, dilator and balloon catheter were all used) (Lines 190-192, Table 2).

***Comment 6: Why does not each total number in line “Diameter of wire (0.025/0.035)” in Table 2 reach 49 and 13 ?***

Response: We apologize for this confusing point. Some data were not available. We have added the appropriate annotations (Table 2).

***Comment 7: Please consider describing the rate of clinically effective cases of each group? Readers would like to know whether or not failed placement of the second stent was related to clinical outcomes.***

Response: Thank you for this comment. We have added the definition of clinically effective rate and the values of the clinically effective rate of each group (Lines 193-195, line 220, lines 277-279, Table 2).

***Comment 8: Please consider discussing how to increase the success rate of stent-in-stent deployment of metal stents in patients with duller degrees between two target ducts in the Discussion part. Would it be required to improve devices (guidewires, dilators, or metal stents), to establish appropriate strategy, or to stratify patients?***

Response: Thank you for the advice. We have added a comparison between success and failure groups in patients with larger degrees (Table 3). In this comparison, the diameter of the first implanted SEMS did not significantly differ between groups. Based on this result, the cause of failure of the second SEMS insertion was not radial force. The passage of the dilation devices was significantly different between the two groups. As we described in the Discussion section, we already have used the SEMS recommended in past reports. Based on this study, we believe the improvement in dilation devices contributed to overcoming difficult cases (Lines 269-279).

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

Sincerely yours,  
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