

## ANSWERING REVIEWERS



November 6, 2013

Xue-Mei Cui, Science Editor, Editorial Office

We thank referees for careful reading our manuscript and for giving useful comments.

Please find enclosed the edited manuscript in Word format (file name: 5421-review.doc).

**Title:** The first clinical study that uses a novel system for measuring lesion size  
(Revised title: Clinical study using a novel system for measuring lesion size)

**Author:** Kiyoshi Oka, Takeshi Seki, Tomohiro Akatsu, Takao Wakabayashi, Kazuo Inui, Junji Yoshino

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

**ESPS Manuscript NO:** 5421

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

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**Responses to the suggestions of editor**

(1) *Title should be no more than 10~12 words. Please revise it.*

*Response 1-1:* In accordance with the editor's comment, we have revised the following text (Page 1, Lines 5).

The first clinical study that uses a novel system for measuring lesion size (13 words)

to

Clinical study using a novel system for measuring lesion size (10 words)

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(2) *Please write the comments. Wirting requeriemnt see the file named“Format of Original Articles“*

*Response 1-2:* In accordance with the editor's comment, we have revised the text (Page: 19-20).

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(3) *Please add the references no less than 26.*

*Response 1-3:* In accordance with the editor's comment, we have added the references 1-8, 21-23, 26, 27. (Page: 22-25)

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**Responses to the comments of reviewer No. 00506602**

(1) Please explain why a sample size of 3 (and not n=5, for example, or higher) is sufficient and valid to yield meaningful and statistically sound results and conclusions about the system's accuracy.

*Response 2-1:* Several times of similar experiments were carried out, but, this manuscript show three representative results.

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(2) Please explain what measures, if any, were taken to ensure that the laser's measurements of "DBO" were accurate (i.e., was the optical probe calibrated before the clinical tests were performed?).

*Response 2-2:* We have performed the calibration using the optical probe by the inner side of a lip instead of the lumen just before clinical study. In accordance with the reviewer's comment, we have revised the text (Page 10, Lines 18-24).

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(3) Please provide references that support the manuscript's claim that: "there has been no built up measurement method thus far. Thus ... endoscopists use only their own eyes to estimate (the lesion's) size. ... Therefore, a measurement system has yet to appear on the market."

*Response 2-3:* In accordance with the reviewer's comment, we have add the reference 7, 8 (Page: 22-23)

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(4) Please provide a reference to substantiate the claim that a measurement error of less than 1 mm is within a reasonable and permissible tolerance.

*Response 2-4:* In accordance with the reviewer's comment, we have add the text and references (Page: 17, Lines: 13-15).

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(5) Please confirm that there are no popular GI endoscopes models that are equipped with an instrument channel that is too narrow to accommodate the system's optical probe.

*Response 2-5:* We agree that this point requires clarification, and have added the text (Page: 15, Line: 16-19) and reference 26 (Page: 25).

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(6) Please clarify in the manuscript the similarities and differences between a "polyp" and a "lesion" in the colon.

*Response 2-6:* The system is intended to measure the size of the lesion including the polyp. "Polyp" instead of the lesion is a measurement target in clinical study. The part which was changed from "lesion" to "polyp" was highlighted with green.

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(7) Please clarify whether this system is associated with any salient limitations other than the lesion not being more than 16 mm in length and that the tilt angle must be less than 20 degrees. might an inadequate bowel prep also affect this system's accuracy?

*Response 2-7:* We are uncertain as to the meaning of the reviewer's comment.

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(8) Please describe how the system's limitations would be conveyed to the user. In other words, if the system is limited to a tilt angle of less than 20 degrees, how would the user know and/or measure this? Further, how would the user know that small lesions require observation with minimal tilt angle (i.e., straight on), to avoid error? Will the authors write a set of operating instructions that accompany their novel system?

*Response 2-8:* We have taught how to measure using our system to the endoscopists just before clinical study. Therefore, the endoscope operators understand that the tilt angle of less than 20 degree is required for accurate measurement. Furthermore, the colon polyps were observed by an endoscope as much as possible by the front. In accordance with the reviewer's comment, we have added the text (Page: 18, Lines: 8-9).

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(9) Please explain why, for a tilt angle of 20 degrees, an error of 0.90 +/- 0.58 mm is sufficiently accurate and does not introduce problematic error. What criterion of acceptability does this permissible error subscribe to? Please provide in the manuscript any relevant references to support the authors' conclusion.

*Response 2-9:* In accordance with the reviewer's comment, we have add the text and references (Page: 17, Lines: 13-15).

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(10) Please comment on the reprocessing requirements of the system's 1.8 mm optical probe (e.g., like the GI endoscope, it would require cleaning and high-level disinfection after each use or patient procedure).

*Response 2-10:* In accordance with the reviewer's comment, we have added the text (Page: 10, Lines: 15-17)

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(11) Please state whether the authors have any vested financial interests or potential conflicts of interest associated with this manuscript's findings.

*Response 2-11:* In accordance with the editor's comment, we have revised the follow text (Page: 19, Lines: 1-3).

#### DISCLOSURE

Drs. Kiyoshi Oka, Takeshi Seki, Tomohiro Akatsu, Takao Wakabayashi, Kazuo Inui, and Junji Yoshino have no conflicts of interest or financial ties to disclose.

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**Responses to the comments of reviewer No. 02446368**

(1) Maybe useful in endoscopic clinical, thank you.

*Response 3-1:* We would like to abbreviate the response to this comment.

**Responses to the comments of reviewer No. 00051373**

(1) For the patient safety, the author needs to describe how to disinfect of this optical device, which seems to be not a disposable one.

*Response 4-1:* In accordance with the reviewer's comment, we have added the text (Page: 10, Lines: 15-17)

(2) The limitation of this device is the tilt angle. So the author needs to present the different lumen of the gastrointestinal tract such as esophagus and the reverse approach of the cardiac region of the stomach.

*Response 4-2:* In accordance with the reviewer's comment, we have added the text (Page: 16-17)

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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