

## ANSWERING REVIEWERS



December 5, 2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 5739-Review.doc).

**Title:** CT Colonography in the Diagnosis and Management of Colorectal Cancer: Emphasis on Pre- and Post-surgical Evaluation

**Author:** Nurhee Hong, Seong Ho Park

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

**ESPS Manuscript NO:** 5739

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

We appreciate the reviewer's comments for this manuscript and we have now addressed a list of point-by-point response to each reviewer's comments.

### (1) Reviewer 1

1) "For the further appreciation of the Journal's readers I would recommend to present in Tables the data of the studies regarding the performance characteristic (sens, spec, PPV, NPV) of CTC in the evaluation of the colon proximal to an occlusive cancer and in the post-resection surveillance."

→ As suggested, we have added two tables summarizing the CTC performance parameters reported in the published studies. We chose not to include PPV and NPV because these values would actually confuse and mislead the readers instead of being informative. The concern was that the study populations in the published studies were quite heterogeneous epidemiologically and they were largely case-control type of populations instead of cross-sectional populations. Therefore, disease prevalence could not be defined at all or, if anything, was heterogeneous, rendering the predictive values incomparable and essentially meaningless in some cases. The table about CTC performance for colonic evaluation proximal to an occlusive cancer focused on the detection of synchronous cancers, which is the key clinical issue. The second table about CTC performance in postsurgical surveillance included both detection of recurred cancers (anastomotic and metachronous) as well as metachronous benign polyps since all of these lesions are relevant in this clinical setting.

2) "Minor comments. Diagnostic colonoscopy is very safe. I doubt that CTC is safer than very safe (Introduction, page 4, line 5)"

→ This is a great comment. Thank you very much. The reported rates of colonic perforation associated with CTC are very low, ranging from 0.009% to 0.06% in published studies.<sup>[1-4]</sup> However, the data were largely from screening CTC practices or from patients who did not have colonic obstruction; and there is no large data regarding the rate/risk of colonic perforation of CTC performed for patients with an occlusive cancer. The majority of the rare reported cases of colonic perforation associated with CTC had underlying colonic lesions including inflammatory and/or obstructive lesions such as diverticulosis, benign inflammatory stricture, carcinoma, and inguinal hernia.<sup>[2,5,6]</sup> Also, a recent

systematic review demonstrated that large bowel obstruction is among the risk factors for colonic perforation following CTC.<sup>[6]</sup> These points have been clearly addressed in the revised version with appropriate citations as shown below.

- 1 **Whitlock EP**, Lin J, Liles E, Beil T, Fu R, O'Connor E, Thompson RN, Cardenas T. Screening for Colorectal Cancer: An Updated Systematic Review. Rockville (MD), 2008
- 2 **Sosna J**, Blachar A, Amitai M, Barmeir E, Peled N, Goldberg SN, Bar-Ziv J. Colonic perforation at CT colonography: assessment of risk in a multicenter large cohort. *Radiology* 2006; **239**: 457-463 [PMID: 16543590 DOI: 10.1148/radiol.2392050287]
- 3 **Burling D**, Halligan S, Slater A, Noakes MJ, Taylor SA. Potentially serious adverse events at CT colonography in symptomatic patients: national survey of the United Kingdom. *Radiology* 2006; **239**: 464-471 [PMID: 16569789 DOI: 10.1148/radiol.2392051101]
- 4 **Pickhardt PJ**. Incidence of colonic perforation at CT colonography: review of existing data and implications for screening of asymptomatic adults. *Radiology* 2006; **239**: 313-316 [PMID: 16641348]
- 5 **Berrington de Gonzalez A**, Kim KP, Yee J. CT colonography: perforation rates and potential radiation risks. *Gastrointest Endosc Clin N Am* 2010; **20**: 279-291 [PMID: 20451817PMCID: 2956272]
- 6 **Atalla MA**, Rozen WM, Niewiadomski OD, Croxford MA, Cheung W, Ho YH. Risk factors for colonic perforation after screening computed tomographic colonography: a multicentre analysis and review of the literature. *J Med Screen* 2010; **17**: 99-102 [PMID: 20660440]

3) "Change line 6, page 5 as ...prevents colonoscopic examination beyond the level of the occlusion."  
→ We have modified the text in page 5 accordingly, as the reviewer suggested.

(2)Reviewer 2

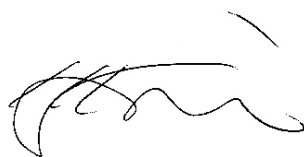
"Although they have stated that they have focused on pre and post-surgical evaluation, the major usage of CTC is aimed at screening colon cancer and therefore, I would recommend they to add another (small) portion for the description of current status of CTC for screening."

→ As recommended, we performed additional search and literature review regarding the current status of CTC in terms of colorectal cancer screening. A succinct up-to-date summary has been added to the texts.

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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