

Dear Editor:

Please find enclosed the edited manuscript in Microsoft Word format (file name: 7196-Review.docx).

Title: Factors associated with incomplete colonoscopy at a Japanese academic hospital

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

We find the comments of the reviewers to be useful and agree that the suggested changes will substantially improve our manuscript.

Reviewer #1

(1) This is a theoretically interesting study, but with only little practical value since it doesn't identify a population to submit to other more effective exams before the endoscopy is performed. In fact effective colon cleansing and melanosis coli are recognized only after the exam is performed.

(Response) As suggested, we have mentioned the issue in the Discussion section.

(2) It is not clear why the authors consider IBD separately by UC e CD.

(Response) As suggested, we have combined the UC and CD data.

(3) It is not clear what is the alternative exam recommended by authors.

(Response) We have clarified the alternative exam that we recommend in the Discussion section.

(4) Many studies are indicating virtual colonoscopy as an effective substitute of optical endoscopy. There is any difference among different human races (i.e. between Asian and western people)?

(Response) As suggested, we have mentioned that there were no differences among different human races in the Discussion section.

(5) In methods it is stated that a comparison was made about experience of colonoscopist. But the result of this comparison is not reported in results.

(Response) We have reported it in the Results section.

(6) The authors say that information about factors associated with incomplete

colonoscopy may provide recommendations about which patients should perform non-optical endoscopy, but they don't give any recommendation after their study.

(Response) As suggested, we have discussed the issue in the Discussion section.

(7) There are some minor grammatical mistakes to correct.

(Response) We have corrected the minor grammatical mistakes according to the suggestions.

Reviewer #2

(1) There are some English grammatical and syntax changes I would recommend.

(Response) As suggested, we have corrected the English grammatical and syntax errors.

(2) I did not understand what you meant by the term 'not significant for interaction of UC, CD, and IBD'.

(Response) We mean that there should not have been any differences between women and men regarding IBD. We deleted 'not significant for interaction of UC, CD, and IBD' to avoid confusion.

(3) There is a typographical error in the discussion segment - numbers of patients with IBD are greater than the total number of patients in the study and the male : female ratios are reversed.

(Response) We have corrected the number of patients in the Discussion section.

Reviewer #3

Koido et al. reviewed 11,812 patients undergoing colonoscopy in a hospital. They performed logistic regression to show the factors predicting incomplete colonoscopy, which include female, previous abdominal surgery, old age, and inflammatory bowel disease. The results are intriguing, but their method of analysis is confusing. In the most instances, an univariate analysis followed by a multivariate logistic regression would showed most of the information the authors tried to convey.

Abstract Results:

1. Odds ratio (ORs) should be OR

(Response) As suggested, we have corrected this abbreviation.

2. "ORs, 1.44; 95% CI, 1.22 to 1.71; P <0.001" and others can be simplified to "OR=1.44, 95% CI=1.22-1.71, P <0.001"

(Response) As suggested, we have corrected this issue.

3. Inflammatory bowel disease includes UC and CD. If UC and CD are categorized separately, there should not be a third category called " inflammatory bowel disease)

(Response) According to suggestion from reviewer #1, we have combined the UC and CD data.

Introduction

1. The first sentence could be deleted without any impact on the buildup of the background.

(Response) As suggested, we have deleted the sentence.

2. There is no rigid colonoscopy, so we rarely use “flexible” colonoscopy. “flexible can be deleted.

(Response) As suggested, we have deleted “flexible”.

Methods

1. Study design: first sentence” an academic hospital”, please be specific, which hospital?

(Response) The academic hospital is Juntendo University Hospital. We have mentioned it in the Methods section.

2. The same paragraph, 5th lin: “In our hospital, bowel preparation has been performed with 2L polyethylene glycol (PEG) with an adjunct laxative.” Please specify which laxative.

(Response) We used sodium picosulfate. We have added this information.

Results: 1. First sentence: “We tried to analyze the risk factors of incomplete colonoscopy with more than 10,000 people in a Japanese academic hospital.” There actually were 11,812 patients. There is no need for this vague description.

(Response) As suggested, we have deleted the sentence.

3. Table 1; it does not make much sense to compare female and males in the study. I suggest the authors to compare those with complete colonoscopy with those with incomplete colonoscopy (univariate analysis)

(Response) According to the reviewer’s suggestion, we prepared a revised Table 1, which appears below. However, we are aware that the suggested table is redundant with Table 2; all of the information, including p-values, is essentially included in Table 2, although the percentage values are expressed as completion rates in Table 2. We agree that the statistical comparison between women and men does not make much sense; thus, we have simply described the characteristics of the patients without statistical testing in the revised Table 1.

Suggested table 1. Baseline characteristics of patients

Variables	Total (n=11812)		Cecal intubation				p-value *
			Incomplete (n=590)		Complete (n=11222)		
Age (mean ± SD)	57.8±14.8		60.8±15.6		57.6±14.7		<0.001
Age ≥ 60 years	6174	52.3%	358	60.7%	5816	51.8%	<0.001
Sex (male)	7686	65.1%	342	58.0%	7344	65.4%	<0.001
Poor bowel cleansing	593	5.0%	107	18.1%	486	4.3%	<0.001
History of abdominal and pelvic surgery	2417	20.5%	175	29.7%	2242	20.0%	<0.001
Diverticular disease	2727	23.1%	80	13.6%	2647	23.6%	<0.001
Melanosis coli	438	3.7%	25	4.2%	413	3.7%	0.50
Ulcerative colitis (UC)	1116	9.4%	63	10.7%	1053	9.4%	0.31
Crohn disease (CD)	83	0.7%	7	1.2%	76	0.7%	0.20
Inflammatory bowel disease (IBD)	1199	10.2%	70	11.9%	1129	10.1%	0.16

Values are mean ± SD (for age) or number of patients and percentage (for others).

* Mann-Whitney U-test (for age) or Fisher's exact test (for others).

4. Then do a logistic regression model with all of the significant factors in the univariate analysis.

(Response) As explained above, the age- and sex-adjusted univariate and multivariate analyses are already shown in Table 2. We used not only significant variables but also all of the variables for the stepwise multiple logistic regression analysis because the association between IBD and complete colonoscopy could not be seen in the unadjusted univariate analysis due to the strong confounding effects of sex and age.

5. There are too many vertical and transverse lines in the tables. Please use a standard format.

(Response) As suggested, we have rearranged the tables.

Our manuscript was edited and formatted for *World Journal of Gastroenterology* type by American Journal Experts: <http://www.journalexperts.com>.

We are enclosing the entire revised manuscript and tables. The underlining in the manuscript indicates the changes.

We do appreciate the time and effort that the reviewers have put into helping us with this manuscript, and we hope that it is now suitable for publication in *World Journal of Gastroenterology*.

Thank you again for publishing our manuscript.

Sincerely yours,



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