

ANSWERING REVIEWERS

April 15, 2014

Dear Editor,

Please find enclosed the edited the full-text manuscript in Word format



Title: Reduction effect of bacterial counts by preoperative saline lavage of the stomach in performing laparoscopic and endoscopic cooperative surgery

Author: Hirohito Mori, Hideki Kobara, Takaaki Tsushimi, Shintaro Fujihara, Noriko Nishiyama, Tae Matsunaga, Maki Ayaki, Tatsuo Yachida, Joji Tani, Hisaaki Miyoshi, Asahiro Morishita and Tsutomu Masaki

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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
3. References and typesetting were corrected

All responses to comments are as following pages.

Sincerely yours,

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REVIEWER #1 (68458)

COMMENT 1

Mori et al. studied reduction effect of bacterial counts by peroperative saline lavage of the stomach performing laparoscopic and endoscopic cooperative surgery. The authors found a significant difference in WBC count, CRP levels, BTs and bacterial counts between non systemic lavage group and systemic lavage+balloon occlusion group. The authors concluded that pre-LECS lavage with 2000 ml of saline exhibited a bacteria-reducing effect equivalent to disinfectants and favorable results in terms of clinical symptoms and data. The study appears to have been well-performed and the data is clear.

Some minor comments; Authors described the types of bacterial detected in the cultures in "discussion".

1) Is there any difference in bacterial type detected in gastric juice and ascites cultures?

RESPONSE

Thank you for your informative comments. We revised and added sentences as follows (Page 11, Line 17):

We detected Gram - positive coccus such as *Streptococcus salivarius*, *Streptococcus mitis*, *Streptococcus mitior* by Gram staining which are normal and representative resident flora of the oral cavity, and there weren't any differences in bacterial type detected in gastric juice and ascites cultures.

2) How do the authors detect these bacteria? The authors should include the methods in "Materials and Methods" section.

RESPONSE

As you pointed out, there were no descriptions about detection method of these bacteria. We added sentences in "Materials and Methods" section as follows (Page 7, Line 23- 24):

These samples were cultured in the Brain Heart Infusion pure culture media (37 °C, 48 hours). In addition, after we took samples from formed colonies, we cultured these samples in blood agar media (37 °C, 24 hours). We detected bacterial strains using the Gram Positive and Gram negative detect card: VITEK 2 ® (BIOMERIEUX Co., Tokyo, Japan).

COMMENT 2

Fig. 3 showing setting of operation room of LECS is not necessary.

RESPONSE

I agree with you. I deleted Fig. 3 of operation room of LECS, and deleted sentence of Fig. 3 (Page7, Line 4)

COMMENT 3

In line 2, page 14, the authors described that the lengths of hospital stay and other aspects of clinical progress were shorter than those with normal..... However, in Table 4, there is no statistically significant difference in hospitalization duration. The sentence is confusing for readers.

RESPONSE

I agree with you. This sentence (Page14, Line 1- 4) was our careless mistake and incorrect which confuses for readers. We deleted this sentence (Page14, Line 1- 4). Thank you for your precious comments.

REVIEWER #2 (69340)

COMMENT

In this manuscript, the authors described that preoperative saline lavage of the stomach in laparoscopic and endoscopic cooperative surgery can reduce the effect of bacterial counts, suggesting the role in preventing post-operative surgical infection. This procedure may be clinically relevant if it would be proved in duplicative observation. Concerns The comparisons used patients data from different time periods and the expertise of the physicians are improving. This may affect the comparability of the data from different time periods. Therefore, the authors need to explain in detail the compatability of their data. Furthermore, longer observation of the real infection in the patients may be more supportive if the authors could provide some follow-up data.

RESPONSE

Thank you for your informative comments. As you pointed out, we should have mentioned in detail the comparability of our data and procedure. We think that in ethical point of view, duplicative prospective observations between non lavage group and lavage group might be difficult due to the unfavorable results of non systemic lavage group such as the abdominal infection risk. That's why comparisons with different time periods were unavoidable, however, all LECS were performed only by Dr. H. Mori and all the procedure of LECS were not changed and developed since we previously reported "Establishment of pure NOTES procedure using a conventional flexible endoscope: review of six cases of gastric gastrointestinal stromal tumors." (Endoscopy 2011; 43: 631-4). We changed only the pre-operative disinfection methods such as non systemic lavage and systemic lavage. Therefore, our comparabilities of data from different time periods might not affect so much. We revised and added sentences and reference as follows (Page 8, Line1):

All LECS were performed only by Dr. H. Mori and all the procedure of LECS were not changed since we previously reported [6]. We changed only the pre-operative disinfection methods such as non systemic lavage and systemic lavage.

Sincerely yours,

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