

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 9316

Title: Esophageal H. pylori colonization aggravates esophagitis and promotes the development of Barrett's esophagus and esophageal adenocarcinoma

Reviewer code: 00227577

Science editor: Gou, Su-Xin

Date sent for review: 2014-02-08 09:40

Date reviewed: 2014-02-12 07:21

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input checked="" type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> Existed	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

The study adopted a well-known EAC model to examine whether H. pylori infection contributes to the development of EAC from GERD. The paper is well written, and the data are in fairly good quality. Here are a few suggestions for revision: 1. The result section needs some rationalization. For each experiment that you did, a rationale needs to be presented to let readers know why you chose to do that experiment. 2. GERD causes esophageal inflammation. If bacterial infection is involved, of course the situation can go worse. Therefore, if you aim to assess the contribution of H. pylori in particular to GERD-to-EAC development, another type of bacteria (e.g. E. coli) needs to be used as a control, to rule out the general effect of bacterial infection. 3. BAX and Bcl-2 are not always involved in apoptosis. They are the gate keepers for mitochondrial permeability. Therefore, if the apoptosis was triggered through something other than mitochondrial pathway, BAX and Bcl-2 ratio may not be affected. Therefore, examination of BAX and Bcl-2 is not rationalized.

ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 9316

Title: Esophageal H. pylori colonization aggravates esophagitis and promotes the development of Barrett's esophagus and esophageal adenocarcinoma

Reviewer code: 02504712

Science editor: Gou, Su-Xin

Date sent for review: 2014-02-08 09:40

Date reviewed: 2014-02-18 21:59

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[Y] Grade A (Excellent)	[] Grade A: Priority Publishing	Google Search:	[] Accept
[] Grade B (Very good)	[Y] Grade B: minor language polishing	[] Existed	[] High priority for publication
[] Grade C (Good)	[] Grade C: a great deal of language polishing	[] No records	[] Rejection
[] Grade D (Fair)	[] Grade D: rejected	[] Existed	[Y] Minor revision
[] Grade E (Poor)		[] No records	[] Major revision

COMMENTS TO AUTHORS

Comment on the Manuscript Oesophageal H-Pylori Colonisation Aggravates Oesophagitis and Promotes the Development of Barrett's Oesophagus and Oesophageal Adenocarcinoma The manuscript describes an animal experiment with a Barrett's Oesophagus and oesophageal adenocarcinoma model induced by an oesophago-gastro-duodenal anastomosis (EDA) with or without subsequent H-pylori infection using a virulent SS1 strain. The authors found that the EDA rats with H-pylori infection in the oesophagus had an aggravated severity of oesophagitis with more Barrett's Oesophagus and oesophageal adenocarcinoma. In addition, the authors found augmentation of proliferation and apoptosis in the oesophageal mucosa of these rats. In general, the findings in this study are novel. They are an important milestone in research on Barrett's Oesophagus and oesophageal adenocarcinoma. The significance of this research on the clinical situation is more than moderate since currently it remains an animal model, and infection in the lower oesophagus with H-pylori is not universal in all patients with oesophageal adenocarcinoma. Far less in patients with Barrett's Oesophagus. The manuscript is well written and readable but it is too long and could be condensed in order to focus on the main points and make these clear to the readership. The research was done with ethical approval from the regulatory authorities. The title is appropriate and reflects the major topic and content of the study. The abstract is clear and gives a clear delineation of the research background, objectives, materials and methods, results and conclusions. The materials and methods are largely satisfactory. It would have been important for the authors to have indicated somewhere the justification for their choice in sample size. There is a

detailed description provided for the rest of the methods used in this study. The design of the controls is rational and reliable and the statistical methods used are appropriate. The results are largely appropriate and gives an accurate description of the obtained results. These are illustrated appropriately with tables and graphs. The discussion is largely well organised with mostly appropriate analysis. There are a few points which the authors may consider revising: 1. The authors mention that the severity of oesophageal injury was decreased in rats of EDA with only gastric H-pylori colonisation compared with rats in the EDA group. This is not statistically significant and the authors may wish to revise this sentence. 2. The authors mention that “studies have indicated that H-pylori can colonise the gastric type epithelium of the lower oesophagus...to the rest of the sentence”. The authors have not really proven this point in this particular study and they need to make this clear by adding “in a previous study” and mention the reference. 3. The authors mention, “in our animal model, chronic severe inflammation caused by reflux and H-pylori induced strong oxidative stress and DNA damage”. The authors have not illustrated that oxidative stress is indeed what has happened in this model. Either an explanation should be provided or this sentence should be revised. 4. The authors have used H-pylori strain SS1. This is a particularly virulent strain and the authors may need to add a justification for the use of this strain and its effect on this particular model. References in this manuscript are appropriate and relevant. The tables and figures were also appropriate and reflect the findings in this study. In summary, this is a good publication with important research findings but should be revised to improve the quality of the manuscript.

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 9316

Title: Esophageal H. pylori colonization aggravates esophagitis and promotes the development of Barrett's esophagus and esophageal adenocarcinoma

Reviewer code: 00058348

Science editor: Gou, Su-Xin

Date sent for review: 2014-02-08 09:40

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

Previously, Dr. Wang's group reported that H. pylori colonization in esophagus increased the severity of esophageal inflammation and the incidence of Barrett's esophagus (BE) and esophageal adenocarcinoma (EAC). This present study was the extension of the preliminary study and explored further the role of esophageal H. pylori colonization in the development of BE and EAC in the presence of acid and bile reflux created by esophagogastrroduodenal anastomosis (EDA). The overall study design was scientifically sound and the findings are of clinical implications. However, the presentation of the animal experiments and results need to be specific and concise. Specific comments: 1. How many mice were initially planned to be used in each of the four randomized groups, based on your previous study? Based on your description, 21 died 6-8 weeks after operation. What was the distribution among the four groups? Were these animals included in the analysis? Moreover, were there any animals died between 8 and 36 weeks after the operation? If any, how many and were they included in the analysis? 2. Please describe the gender of the animals used in the experiments. 3. Please describe how the "pseudo-operation" was performed. 4. How many CFUs of H. pylori in total were inoculated each time? Was it once daily? 5. I assume that the definition of H. pylori infection by "both RUT and anti-H. pylori antibody positive" only refers to "gastric colonization". Please clarify. 6. References should be given for the definitions of BE and EAC. 7. Please describe clearly the status of H. pylori colonization for all the four groups; I am wondering why there was no H. pylori colonization in the pseudo-operation with H. pylori infection group, even in the stomach if this was the case. 8. The names of subgroups for the EDA with H. pylori infection

group appear misleading, which may be modified as “EDA with concomitant esophageal colonization” and “EDA with only gastric colonization”. Corresponding changes should be made in the main text. Please also make revisions if there was any *H. pylori* colonization in pseudo-operation with *H. pylori* infection group. 9. What statistical methods were used for numerical parametric data (e.g. ANOVA, or t-test)? χ^2 should be χ^2 . 10. The Results section should be made more concise by not repeating the Introduction and Methods, and not interpreting the results. 11. The conclusion should be firmly drawn based on the major findings obtained from the present study and consistent between the abstract and main text. 12. Modifications should be made for some sentences and terms: a. Please check if the primary antibodies were described correctly, e.g. could it be “rabbit anti-mouse Ki-67 monoclonal antibody”, etc.? b. “The appearance of the esophagus in the two pseudo-operated animals was smooth and light pink (Figure 2A)”. Was the phrase “two pseudo-operated animals” corrected? c. In the main text, indicate all mRNAs that are included in Table 1, i.e. Primers for amplification of *cdx2*, *muc2*, *c-myc*, *cyclin D1*, *bcl-2* and *bax* genes were.....”. d. Italicize all genes. e. Abbreviations should be defined separately and appropriately, when necessary, in the abstract, main text, tables and figures/figure legends, and used consistently. f. Avoid Chinese font (e.g. oC) in the manuscript.