

ANSWERING REVIEWERS



May 13, 2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 3249-review.doc).

Title: Surgical management of patients with bowel obstruction secondary to gastric cancer

Author: Wenguang Wu, Ping Dong, Xiangsong Wu, Maolan Li, Qichen Ding, Lin Zhang, Jiahua Yang, Hao Weng, Qian Ding, Zhujun Tan, Jianhua Lu, Jun Gu, Yingbin Liu

Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 3249

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

(1) Reviewer #1:

Authors presented their experience of using whole body PET/CT in the surgical management of patients with bowel obstruction secondary to gastric cancer. PET/CT is found to significantly improve survival due to its ability of identifying cause of bowel obstruction. Overall, the paper is well written and acceptable for publication at its current form. My only comment is that most of the paragraphs are too lengthy, such as some sections of Results and Discussion. I would suggest splitting these long paragraphs into short ones so as to make it easier for readers to follow.

Author: Thank you for your good suggestion. The lengthy paragraphs has been splitted in our revision manuscript. Thank you.

(2) Reviewer #2:

2. This is an interesting article. However, some major revisions are needed before this paper can be considered for publication. 1. The title of this manuscript is "Role of 18F-FDG PET/CT in the Surgical Management of Patients with Bowel Obstruction Secondary to Gastric Cancer". However, after reading this article, the role of FDG PET/CT for the surgical management in these patients is still quite vague to me. Of the 65 patients, 34 patients had no evidence of tumor recurrence and 31 had evidences of tumor recurrence based on PET/CT images. Of the 34 patients without evidence of tumor recurrence, 15 patients (44.1%) received exploratory laparotomy and 19 patients (55.9%) received nonoperative treatment. Of the 31 patients with evidence of tumor recurrence, 12 patients (38.7%) had exploratory laparotomy and 19 patients (61.3%) had nonoperative treatment. Apparently there were no significantly difference between the treatment decisions in these two groups. The authors should incorporate more detailed data about the impact of FDG PET/CT findings on the surgical planning in these patients. Like what is the major impact on treatment decision in a patient when the FDG PET/CT finding are positive? The legend of Figure 1 is "The treatment decision-making process". This figure can not explain how the author decided which patient should receive exploratory laparotomy and which patient should receive nonoperative treatment. Please clarify more clearly the role of FDG PET/CT images in the treatment decision-making process.

Author: Thank you. This is a retrospective study not a prospective randomized controlled study. There were no significantly difference indeed between the treatment decisions in these two groups. 18F-FDG PET/CT is a additional inspection. The aim of this study is to evaluate the clinical role of 18F-FDG

PET/CT in identify of SBO and subsequent clinical treatment strategies. We found that 18F-FDG PET/CT is a good inspect to identity the reasons for bowel obstruction secondary to gastric cancer and also useful for surgical management. If the obstruction has not resolved within 48h, and laparotomy is usually advised. The patients in this study who underwent surgery for bowel obstruction after curative resection of gastric cancer, the type of operation was determined by 3 expert gastrointestinal surgeons depending on the patient's overall medical status, the patient's wishes, and abdominal examination. This is described in section of operative and nonoperative management. Thank you.

3. In the Discussion section, the author mentioned "Other trials have reported the impact of 18F-FDG PET/CT on the clinical decision-making process[26-28] ". More detailed information should be added into the Discussion.

Author: Thank you for your good suggestion. The excellent and detailed description has been applied to our revision letter.

4. The readers may be interested in some examples of FDG PET/CT images. It will be nice If the authors can put in some images of FDG PET/CT in the manuscript.

Author: Thank you for your good suggestion. Some examples of FDG PET/CT images have been applied to our revision letter.

(3) Reviewer #3:

In all 65 patients with PET-CT, 31 had positive PET-CT scans showing recurrence and/or metastasis, and 34 had no evidence of malignancy. However, there was no difference in the percentages of surgeries between two groups: 12/31 in PET-CT positive group and 15/34 in PET-CT negative group. How did the PET-CT help therapeutic planning in patients with SOB secondary to gastric cancer? How was the surgical or non-surgical treatment decided based on the PET-CT finding? The manuscript does not provide information or data about these. What the manuscript only shows is that PET-CT is helpful to identify malignant and/or metastatic disease, but also with very limited data without details.

Author: Thank you. This is a retrospective study not a prospective randomized controlled study. There were no significantly difference indeed between the treatment decisions in these two groups. 18F-FDG PET/CT is a additional inspection. The aim of this study is to evaluate the clinical role of 18F-FDG PET/CT in identify of SBO and subsequent clinical treatment strategies. We found that 18F-FDG PET/CT is a good inspect to identity the reasons for bowel obstruction secondary to gastric cancer and also useful for surgical management. If the obstruction has not resolved within 48h, and laparotomy is usually advised. The patients in this study who underwent surgery for bowel obstruction after curative resection of gastric cancer, the type of operation was determined by 3 expert gastrointestinal surgeons depending on the patient's overall medical status, the patient's wishes, and abdominal examination.

The detail data of PET-CT is showed in follow table. Thank you.

Recurrence site, number and SUV of recurrence in PET/CT

Variables	No.	SUV (mean)
Recurrence		
Yes	31	2. 6-28. 3(7. 3)
No	34	/
Recurrence site		
Locoregional recurrence (Remnant stomach or anastomosis site)	2	4. 1-16. 2(6. 8)
Distant metastasis	29	2. 6-28. 3(7. 9)
Lymph-node	16	2. 6-28. 3(7. 5)
Liver	8	2. 8-15. 5(8. 0)
lung	6	2. 6-14. 2(7. 1)
Other site (bone, skin, etc.)	10	3. 2-12. 5(6. 2)
Peritoneum	12	2. 7-11. 2(5. 4)

In the PET-CT paragraph of Materials and Methods section, the manuscript states “focal uptake with SUV>2.5 is considered consistent with a pathological process. The criteria and description are so confusing. The first, where was focal uptake: bowel, peritoneal density, ascites or lymph node? Focal uptake with SUV>2.5 within the bowel could be physiologic. The second, what did pathological process stand for: malignancy or inflammation?

Author: FDG uptake was defined to be positive qualitatively when a focal FDG uptake was higher than the normal biodistribution of background FDG activity. In addition, to exclude the physiologic uptake, FDG uptake in the bowel was regarded to be positive only when there was wall thickening of the same bowel at simultaneously acquired CT. PET /CT images were analyzed for the number and site of positive FDG uptake, and the SUV value of all positive FDG uptakes was measured (Table above). The drawback of PET/CT is that 18 F-FDG frequently accumulates in areas of inflammation. In our study, 31 patients had positive PET/CT scan results, and all 12 were tumor recurrence in the final laparotomy, and the remaining 19 received non-surgical treatment. Thank you.

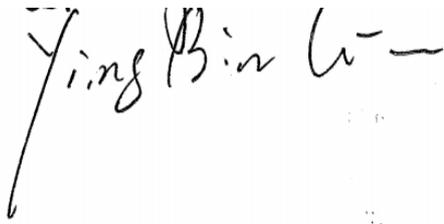
In addition, writing can be more concise in the background and discussion. There are many repeated sentences.

Author: Thank you for your good suggestion. The excellent and description has been applied to our revision letter and repeated sentences were deleted

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

A handwritten signature in black ink that reads "Ying Bin Liu". The signature is written in a cursive, flowing style with a long horizontal line extending to the right.

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