

## Peer Review File

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### Reviewer A

Quite interesting article about the importance of barbed sutures in this particular and urgent operation. The article is well structured as well as the study design and discussion session (about the importance of underlying lack of manpower). The limitations are well explained.

I only think that in the discussion session the importance of barbed sutures in general surgery and in particular in this setting should be stressed (with references)

-> We added sentences in the discussion session (page 9, line 10-22) as you pointed out.

### Reviewer B

I think this study is well done. The only flaw is the small number of participants and its retrospective nature.

-> We already described the limitations of the small number of participants and its retrospective nature. Due to eradication therapy for *Helicobacter pylori* and improvements in pharmacological therapies, the incidence of PPU has been actually decreasing. Also, prospective design is not possible due to the nature of emergency surgery. Please kindly consider this situation.

Contrary to your opinion, I think that duet emergency laparoscopy could very well become the standard, given the good results and the average availability (in my country) of a two-surgeon emergency team.

-> Thank you for your valuable comments. In Korea, duet surgery is not yet standard in emergency setting. We cautiously think that performing laparoscopic emergency surgery with assistants (if available) is safe and better for the operators with a secured view. There are few studies or papers on duet laparoscopic surgery, especially in emergency procedure. Please kindly consider this situation.

### Reviewer C

The authors presented their good result of duet laparoscopic repair with knotless barbed sutures for PPU treatment. Here, I have some questions:

1. Which size of absorbable braided sutures? 3-O or 2-O. And which suture type do they use to close the perforated hole? simple or figure-8, or running suture?

-> We performed interrupted simple sutures using 3-0 Vicryl in group B. A sentence was modified to Methods session (page 5, line 9-13) regarding the suture materials.

2. Knotless absorbable barbed sutures have some disadvantages, such as expensive and If the position of needle insertion is not good, you want to regret, you will not be able to change the position.

-> We added a sentence in the limitation session (page 9, line 12-14) as you pointed out.

3. In group B, surgeries were performed by seven surgeons who were subspecialized in certain surgical fields including breast, colorectal, hepatobiliary, gastrointestinal, and pediatric surgery. However, only two surgeons who specialized in gastrointestinal surgery performed in group A. Maybe this is also the reason why group A has short operative time.

-> We modified a sentence in the limitation session (page 10, line 18-20). GI surgeon may be familiar with laparoscopic suture handling and have a superior ability to understand anatomy of stomach and duodenum. This can affect shorter operation time in group A.

4. About gastric ulcer perforation, sometimes, the patients may have cancer-related perforation, did they perform a biopsy during laparoscopy or after the operation?

-> We performed biopsy of the ulcer margin in the case of gastric ulcer perforation. We added this contents in the Methods session (page 6, line 1-3).