

Response to reviewer's comment

Name of journal: World Journal of Clinical Cases

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Title: Endoluminal Closure of an Unrecognized Penetrating Stab Wound of the Duodenum with Endoscopic Band Ligation: case report

Honorary Chief Editor and Science Editor

World Journal of Clinical Cases

Dear Editor:

Please find enclosed our revised manuscript entitled "Endoluminal Closure of an Unrecognized Penetrating Stab Wound of the Duodenum with Endoscopic Band Ligation: A case report", which we would like to resubmit for publication as an *Case report Article* in *World Journal of Clinical Cases*.

We thank the reviewers for their helpful and insightful comments, which helped us to improve the manuscript. We have revised the manuscript in accordance with the reviewers' suggestions. The changes to the revised manuscript are highlighted in blue (revisions made in response to reviewers' comments). Below is a summary of the revisions, followed by our point-by-point responses to each of the reviewers' comments. We believe that we have addressed all the reviewers' concerns and hope that the manuscript is now suitable for publication in *World Journal of Clinical Cases*.

We will be happy to provide further information or make further revisions if required. Thank you very much for your consideration.

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Yours sincerely,

Joung-Ho Han, M.D., Ph.D.

Reviewer1

We thank you for your generous comments on the manuscript and have had edited the manuscript to address their concerns. We agree your opinion that the endoscopic approach is not treatment but diagnostic tool for missed duodenal injury. As you mentioned, we correct abstract, discussion and conclusion. We mention that duodenal injury tended to overlooked in preoperative CT and intra-operation, and we describe careful abdominal exploration such as Kocher maneuver during operation. So, we correct our conclusion that duodenum injury is easy to overlook, surgery is important, and if suspected, the endoscopic approach is one way.

Answer

→ conclusion in abstract; A penetrating injury of the duodenum can be overlooked, so careful abdominal exploration is very important. If a missed duodenal injury is suspected, a cautious endoscopic approach may be helpful.

Core tip; Following a penetrating abdominal injury, it is very important for surgeons to find all associated lesions. Insufficient abdominal exploration can result in a missed injury, occasionally leading to the need for reoperation and possibly a fatal outcome. We successfully treated a rare case of perforation and bleeding in the third portion of the duodenum, which was not found by upper-abdominal exploration during the initial surgery. If a missed hollow viscus injury, particularly in the duodenum, remains despite such efforts, an endoscopic approach may be helpful in some cases.

Discussion; Retroperitoneal organ injuries resulting from a penetrating abdominal injury tend to be overlooked, as occurred in our case. This is why in the event of penetrating abdominal

injuries it is important to perform a very careful abdominal exploration, including the Kocher maneuver.

Discussion; Although our case is very rare and limited, it is the first successful endoscopic treatment for a missed duodenal injury found more than 24 hours after surgery.

Conclusion in discussion; In our experience, an endoscopic approach may be helpful in the event of a suspected duodenal injury. A very careful abdominal exploration, including the Kocher maneuver, is very important for an upper abdominal penetrating injury.

We think that the last your opinion is very important. Unfortunately, prophylactic abdominal drain did not detect bleeding or bile leak, although it located in Foramen of Winslow in our case. Prophylactic drain of abdominal cavity did not have favor evidence of morbidity, mortality and early detection of complication in literature upper gastrointestinal surgery. Of course, the case of trauma or emergency operation is different, our opinion is that it is difficult to trust 100% of the intraperitoneal drainage tube to early detect leakage or bleeding. But we think that intra-abdominal drainage is very important after abdominal surgery. We describe the importance of intra-abdominal drainage in discussion that reflect your opinion.

answer

→ If a missed duodenal injury has already caused peritonitis, a surgical approach is required because a penetrating abdominal injury that accompanies a hollow viscus injury is an obvious surgical indication.[10, 11] In this case, a Levin tube was inserted to drain gastric and bile juice and to detect internal bleeding. Two JP drains were inserted in abdominal cavity. One located in right paracolic gutter to the foramen of Winslow, and the other located in pelvic cavity. There

was no evidence of internal or intra-abdominal bleeding or leakage via the Levin tube or JP drain, and there was no evidence of peritonitis. Thus, we attempted an endoscopic approach to diagnose the bleeding detected on the abdominal CT scan. There was no evidence in favor of prophylactic drain of abdominal cavity following upper gastrointestinal surgery with respect to morbidity-mortality, nor was it helpful in the diagnosis or management of leakage, however the level of evidence is low.[12] Of course, we think that the cases of trauma or emergency operation are different, and prophylactic abdominal drainage may have advantages such as early detection of complications and to treat leakage conservatively. However, the prophylactic abdominal drain may have early detection of complication but not all cases reflected, so careful observation and physical exam in bedside were very important.

Reviewer2

Penetrating duodenal injuries are very rare but extremely insidious. While intraperitoneal duodenal injuries cause peritonitis, a retroperitoneal duodenal injury does not induce this complication during the first hours. This makes the diagnosis hard to establish, as it was in the presented case. If penetrating duodenal injuries are diagnosed several hours after trauma and the patient shows the symptoms of generalized peritonitis and/or sepsis, the only option is surgery. In case of immediate recognition of a penetrating duodenal injury, it is probably possible to try using the endoscopic closure of the wound. However, I have not ever seen a successful endoscopic band ligation applied in such cases, especially at a later stage. Therefore, the described case is unique. It would be interesting to know if a nasoduodenal drain was applied to divert pancreatic and biliary secretions and how the drainage of the peritoneal cavity

was done.

Answer :

Method section : One day after the surgery, the patient became hemodynamically unstable with massive hematochezia, although there was no evidence of bleeding in the Levin tube or Jackson–Pratt (JP) drain.

Discussion section : We added these sentences.

There was no evidence of internal or intra-abdominal bleeding or leakage via the Levin tube or JP drain, and there was no evidence of peritonitis. Thus, we attempted an endoscopic approach to diagnose the bleeding detected on the abdominal CT scan. There was no evidence in favor of prophylactic drain of abdominal cavity following upper gastrointestinal surgery with respect to morbidity-mortality, nor was it helpful in the diagnosis or management of leakage, however the level of evidence is low.[12] Of course, we think that the cases of trauma or emergency operation are different, and prophylactic abdominal drainage may have advantages such as early detection of complications and to treat leakage conservatively. However, the prophylactic abdominal drain may have early detection of complication but not all cases reflected, so careful observation and physical exam in bedside were very important.

Reviewer3

-You can mention endoscopic closure of acute iatrogenic perforations after endoscopic retrograde cholangiopancreatography in Discussion. -Some mistakes: “Figure 2” in last line

of Image examination; “tomography” in Fig 1; “duodenum” in Fig 1.

Answer : Thank you. I correted this errors.