

1. Page1 in line 5 " Intra-abdominal" is changed to "retroperitoneal ".
2. Page1 in line 7 "Medial " is changed to "Median ".
3. Page3 in line 43 "Medial " is changed to "Median ".
4. Page3 in line 43 Increase the "and is ".
5. Page3 in line 44 "Medial " is changed to "Median ".
6. Page3 in line 50 " Intra-abdominal" is changed to "retroperitoneal ".
7. Page3-4 in line 60-62" MALS is very rare and usually has no obvious symptoms. It is diagnosed by physical examination or due to complications. When a patient has abdominal bleeding or PDAA, we should consider whether the patient has MALS. "is changed to "MALS is very rare and usually has postprandial abdominal pain, upper abdominal murmur, and weight loss. It is diagnosed by imaging or due to complications. When a patient has abdominal bleeding or PDAA, we should consider whether the patient has celiac trunk stenosis (MALS or other etiology)."
8. Page4 in line 65 "Medial " is changed to "Median ".
9. Page4 in line 65" Intra-abdominal" is changed to "retroperitoneal ".
10. Page4 in line 67 Increase the "and ".
11. Page4 in line 72 "Medial " is changed to "Median ".
12. Page4 in line 73 Increase the "findings ".
13. Page4 in line 76-78"When patients show symptoms, these different clinical manifestations can make the diagnosis challenging, leading to an

underestimation of the manifestations actual prevalence."is changed to "MALS typically manifests as abdominal pain and weight loss. Although these symptoms are usually found, diagnosis is often late due to the rarity of this syndrome and to other much more common causes for epigastric pain. "

14. Page4 in line 78-79"One known complication of MALS is collateral aneurysm " is changed to "One known complication of MALS is collateral circulation aneurysms,".

15. Page5 in line 94 deleted colic.

16. Page5 in line 98. Increase the "ischemic heart".

17. Page5 in line 99. Increase the "laboratory analyses".

18. Page5 in line 100. Increase the "Amylase leves".

19. Page6 in line 102."and she was admitted to our department." is changed to "and she was admitted to the department of Gastroenterology. "

20. Page6 in line 104."anorexia " is changed to "upper abdominal murmur".

21. Page6 in line 112-113."and the whole abdomen was flat, with rebound tenderness. No noise was heard on the upper abdomen during inhalation or exhalation. " is changed to "acute face, painful expression, clear consciousness, mild pallid eyelid conjunctiva, flat abdomen, no obvious mass, tenderness and rebound pain throughout the

abdomen, no muscle tension. No murmurs were heard in the upper abdomen on inhalation or exhalation. "

22. Page7 in line 127" Intra-abdominal" is changed to "retroperitoneal".

23. Page7-8 in line 133-143"During the operation, a large area of haematoma and blood clots were observed after the peritoneum. Haematomas were seen from the side of the duodenum to the back of the lower abdomen and above the pancreas. During the exploration, there was active bleeding approximately 1 cm below the branch of the gastroduodenal artery. Gastroduodenal artery suture was used to stop the bleeding. PDAA rupture was ruled out due to the location of the bleeding. We read the enhanced CT and the CTA film in detail, and found that the initial segments of the CA and SMA were narrow and that the CA origin was V-shaped (Figure 1A, B and Figure 2). In addition, abnormal collateral blood vessels were formed between the gastroduodenal artery and the SMA. I" is changed to "After layer by layer laparotomy, the omentum and gastrocolic ligament were dissociated along the greater curvature of the stomach to expose the retroperitoneal hematoma and remove the hematoma adjacent to the duodenum and above the pancreas. The hepatoduodenal ligament was dissected and the gastroduodenal artery was isolated, there was active bleeding approximately 1 cm below the

branch of the gastroduodenal artery. PDAA rupture was ruled out due to the location of the bleeding. We read the enhanced CT and the CTA film in detail, and found that the initial segments of the celiac artery and SMA were narrow and that the celiac artery origin was V-shaped (Figure 4A, B and Figure 3). In addition, abnormal collateral blood vessels were formed between the arteria gastroduodenalis and the SMA. "

24. Page8 in line 145" Intra-abdominal" is changed to "retroperitoneal".

25. Page8 in line 147-149"Our hospital has not yet performed coil vascular embolism and interventional therapy. Gastroduodenal artery suture was used to stop the bleeding. " is changed to "Our hospital has not yet performed coil vascular embolism and interventional therapy. We did an exploratory laparotomy, after layer by layer laparotomy, the omentum and gastrocolic ligament were dissociated along the greater curvature of the stomach to expose the retroperitoneal hematoma and remove the hematoma adjacent to the duodenum and above the pancreas. The hepatoduodenal ligament was dissected and the gastroduodenal artery was isolated. The lower branch of the gastroduodenal artery was located above the gastroduodenal artery with active bleeding, and the active bleeding artery were sutured with no. 4 vascular suture needle. "

26. Page8 in line 160" increased" is changed to "decreased".

27. Page9 in line 167" a physical examination" is changed to "a medical examination ".

28. Page10 in line 189-191 deleted"Although it cannot determine the state of the blood vessels during the inspiratory and expiratory phases, Doppler ultrasound can be performed while sitting or standing. "

29. Page10 in line 200" CA" is changed to "abdominal aneurysm ".

30. Page11 in line 204" Intra-abdominal" is changed to "retroperitoneal ".

31. Page12 in line 227-231"In our case, considering the actual situation in our hospital, we could only choose surgical suture haemostasis, which saved the patient's life. Although this intervention failed to achieve a complete cure, it provided the patient with an opportunity for the next step of treatment, such as laparoscopic and interventional therapy." is changed to "In our case, considering the actual situation in our hospital, we could only choose surgical suture haemostasis, which saved the patient's life. Although this intervention failed to achieve a complete cure, it provided the patient with an opportunity for the next step of treatment, such as laparoscopic and interventional therapy. Interestingly, in our case, PDAA and SMA thrombosis disappeared after more than 1 year of follow-up after gastroduodenal artery suture hemostasis, suggesting that postoperative pressure on the celiac artery and SMA was

reduced to some extent and blood flow was improved. The patient is satisfied with short-term follow-up, but long-term follow-up is still required. "

32. Page12-13 in line 233-242" MALS is very rare. It is generally asymptomatic and is diagnosed by by the development of complications. In the present case, MALS was missed because, at that time, we did not fully understand the disease. When patients exclude traumatic intra-abdominal bleeding or PDAA, we should consider whether they have MALS; In addition to aneurysm rupture and hemorrhage, other factors such as collateral artery rupture and hemorrhage should also be considered when intra-abdominal bleeding is complicated with aneurysm. The treatment of MALS with aneurysms is mainly surgical or interventional therapy, but surgical decompression can not only decompress CA and SMA, but also eliminate the formed aneurysms, and the prognosis is good. " is changed to "MALS is very rare. It is generally asymptomatic and is diagnosed by the development of complications. In the present case, MALS was missed because, at that time, we did not fully understand the disease. The treatment of MALS with aneurysms is mainly surgical or interventional therapy, but surgical decompression can not only decompress coeliac artery, but also eliminate the formed aneurysms, and the prognosis is good. "

## **Reviewer #1:**

**批注 NT1: Throughout the manuscript, all information points to retroperitoneal and not intra-abdominal bleeding. This is a very important distinction.**

Answer: We have replaced all intraperitoneal bleeding in the article with retroperitoneal bleeding。

**批注 NT 2: MALS can be symptomatic as said in the Introduction section and very rarely diagnoses by physical examination.**

Answer: We have made corresponding changes

**批注 NT3: The majority of PDAA are associated with celiac trunk stenosis (MALS or other etiology).**

Answer: We have made corresponding changes

**批注 NT 4: MALS typically manifests as abdominal pain and weight loss. Although these symptoms are usually found, diagnosis is often late due to the rarity of this syndrome and to other much more common causes for epigastric pain.**

Answer: We have made corresponding changes

**批注 NT 5: Also post-stenotic dilations**

Answer: We have made corresponding changes

**批注 NT 6: Colic or persistent?**

Answer: We have made corresponding changes

**批注 NT 7: Which is?**

Answer: It has been modified to gastroenterology

**批注 NT 8: Anorexia is not a common symptom. Patients lose weight because of post-prandial pain. They stop eating to avoid feeling more pain.**

Answer: We have made corresponding changes

**批注 NT 9: Was it generalized? Or more on the upper quadrants? Was there any palpable mass? Please add more details to physical examination.**

Answer: More details on physical examination have been added

**批注 NT 10: Do you mean a bruit?**

Answer: I'm talking about a vascular murmur, We have made corresponding changes

**批注 NT 11: How long after the previous result?**

Answer: After 24h

**批注 NT 12: What do you think was the cause?**

Answer: We think it's related to slow blood flow due to celiac stenosis

**批注 NT 13: If you find a PDAA you should always look for celiac trunk stenosis.**

Answer: Yes, I have experience in the future

**批注 NT 15: ?**

Answer: We have made corresponding changes

**批注 NT 16: Please add more surgical technique details: incision, retroperitoneal access, etc---**

Answer: More surgical details have been added

**批注 NT 17: Did you ligate the GDA?**

Answer: Not a gastroduodenal artery, but a gastroduodenal branch, This part has

been revised.

**批注 NT18: If you had this diagnosis before surgery, would it change your management?**

Answer: Yes, I will change

**批注 NT19: What about Doppler US?**

Answer: Since the patient's PDAA was not treated, we wanted to follow up the patient's PDAA changes.

**批注 NT20: Did you consider submitting the patient to median arcuate ligament release? The cause for the complication is still not addressed.**

Answer: We suggested that the patient go to a higher hospital for a median arcuate ligament release, but the patient refused

**批注 NT21: Was the patient on anticoagulation?**

Answer: NO

**批注 NT22: Decreased blood flow leads to ischemia, not increased blood demand...**

Answer: We have made corresponding changes

**批注 NT23: Typical imaging can be found during physical examination? Please re-read this section.**

Answer: We have made corresponding changes

**批注 NT24: Please clarify**

Answer: We have made corresponding changes

**批注 NT25: Celiac axis tumors? IS this a common complication?**

Answer: It's not an abdominal tumor, it's an abdominal aneurysm

**批注 NT26: Some of the case reports are also of retroperitoneal bleeding...**

Answer: We have all modified it to retroperitoneal bleeding

**批注 NT27: But you did not perform celiac axis decompression.**

Answer: In those circumstances, we had to save the patient's life first.

**批注 NT28: It is the other way around – aneurysms are complicated with bleeding. Also this sentence does not make sense.**

Answer: Has been deleted

**批注 NT29: Decompress the SMA?**

Answer: We have modified it

## **Reviewer #2:**

**(1) GDA bleeding is unlikely to be immediate intra-abdominal bleeding, and is likely to cause retroperitoneal bleeding first. If it is described as intra-abdominal hemorrhage, it should be shown on CT images, etc. In Fig 1B, the main changes appear to be right perinephric and retroperitoneal hemorrhage. Otherwise, the expression "retroperitoneal hemorrhage" should be used throughout the text and title, for example in P7-L129 and P8-L147. I have not checked all the indexes cited in the text, but citation 1 by Hanaki et al. reports retroperitoneal haemorrhage due to MALS, not intra-abdominal hemorrhage.**

Answer: We have all modified it to retroperitoneal bleeding

**(2) P7-137 "in the retroperitoneum" may be more appropriate than "after the peritoneum".**

Answer: We have modified it

**(3) In P7-L124 to L126, the contents of the text do not seem to match the images. Also, the first figure should be corrected to start from Fig. 1, not Fig. 3.**

Answer: We have modified it

**(4) Regarding "Treatment" on P8-L149, there is no mention of the MAL incision. It is somewhat clear from the Discussion that no incision was made, but the reason why no incision was made should be stated here as well.**

Answer: It has been modified as required

**(5) In Figure 4, the mark does not indicate SMA, which looks like an IVC thrombus, but the authors should check the images. Similarly, P8-L147 and L157 should be reconsidered.**

Answer: We have modified it

**(6) For P11-L203, what does "CA tumors" mean?**

Answer: It's not an abdominal tumor, it's an abdominal aneurysm

**(7) In this case, no incision of the MAL seems to have been made, and although the disappearance of the aneurysm was confirmed in the follow-up CT 1 year after the surgery, the readers may be interested in the change in the status of the celiac artery stenosis and the patency of artery arcade in the pancreatic head, which should be described.**

Answer: Since the patient only had a CT scan, we could not determine the condition of changing celiac artery stenosis and the patency of artery arcade in the pancreatic head.

**(8) The authors state that it was the GDA that caused the aneurysm in this case. However, in Fig. 2, the aneurysm seems to be located in the middle of the arcade of the pancreatic head artery. In addition to the aneurysm indicated by the yellow arrow, there is also other spindle-shaped aneurysm formation in the vicinity of the SMA. Would it be polite to indicate that there are at least two unusual aneurysm formations in this photograph and could you indicate which aneurysm was the source of the bleeding? Also, can you show what the rationale is for describing the yellow arrow aneurysm as a GDA aneurysm rather than a PDA aneurysm? The MAL results suggest that an aneurysm in the GDA is indeed an uncommon condition, but the fact that the aneurysm disappeared after ligation of the GDA needs to be explained in detail in the Discussion and it is very important to show this. However, it is necessary to explain in detail in the Discussion that the aneurysm disappeared after ligation of the GDA, etc. I think that this is a very important point in terms of novelty.**

Answer: It has been modified as required

