

Response letter

Dear Editor,

Thank you for arranging a timely review for our manuscript. We have carefully evaluated the reviewers' critical comments and thoughtful suggestions, responded to these suggestions point-by-point, and revised the manuscript accordingly. All changes made to the text are in red so that they may be easily identified. With regard to the reviewers' comments and suggestions, we wish to reply as follows:

Reviewer #1:

Specific Comments to Authors:

A. Abstract

1. Mirizzisynndrome is NOT "rare". It is "uncommon".

Reply: Thanks for your kind advice. We have modified the inappropriate expression as your suggested.

2. A case CANNOT 'underwent'. Instead - A patient with xxx diagnosis was treated with xxxx modality. Please give respect to patient as a person and not mention as a"case".

Reply: Revised, please check “The patient with type I Mirizzi syndrome diagnosis was treated with SpyGlass direct visualization electrohydraulic lithotripsy...” for details.

3. You did not do cholecystectomy?

Reply: We have performed cholecystectomy for this patient, the corresponding contents have been described in the “OUTCOME AND FOLLOW-UP”, please check: “Six months later, the patient underwent laparoscopic cholecystectomy without complications”. Besides, we have added the relevant description in the abstract to avoid unnecessary misunderstanding, please see: “Finally, laparoscopic cholecystectomy or open cholecystectomy was performed after half-year post-operation” in the abstract.

4. A case of 1 patient can only say - it is feasible and not unsafe. It cannot tell about effectiveness or safety. So edit.

Reply: Revised, please see: “Direct visualization-guided laser or electrohydraulic lithotripsy with SpyGlass is feasible and minimally invasive for Mirizzi syndrome type I without apparent unsafe outcomes”.

B. Case report

1. Delete the dates please as it can identify a patient. This is wrong and breaches privacy.

Reply: Deleted.

2. Page 4 last line - was lap or open scheduled? Was it actually done or just scheduled and not done? Pls tell clearly.

Reply: Sorry for making this confusion, the laparoscopic cholecystectomy was planned at that time and then performed after half-year post-operation. The corresponding contents have been described in the Abstract and “OUTCOME AND FOLLOW-UP”.

C. Discussion

1. Surgical discussion on page 6-7 does not mention about - bail out strategies, laparoscopic subtotal cholecystectomy to reduce bile duct injury (PMID - 31701285) It also should include on-table consults to HPB surgeons if there are technical or anatomical issues (PMID - 35367147).

Reply: Thank you for your valuable comments. We have added the corresponding contents about the bailout strategies as you suggested in the discussion, please check “Tay et al. conducted a retrospective analysis...” and “Of note, general surgeons are not trained to manage...” for details.

2. Just like innovation in endoscopic technology, there are innovations in surgical technology that can help to reduce bile duct injury in Mirizzi syndrome patients - like indocyanine green dye use to delineate biliary anatomy (PMID - 33398590)

Reply: We have added the corresponding discussion about the point you suggested, please check: “Intriguingly, similar to advances in endoscopic technology...”.

Reviewer #2:

Specific Comments to Authors: A case report of type I Mirizzi syndrome treated by electrohydraulic lithotripsy under the direct view of Spyglass (Title) - SpyGlass is a brand name, and here and below in the text it should be written that way (SpyGlass, not Spyglass).

Reply: Thanks for your kind advice. We have revised the incorrect format as you suggested.

#They are co-first authors (Authorship) - Designation of co-first authors and co-corresponding authors is not permitted (please see Guidelines for Manuscript Preparation and Submission: Case Report).

Reply: Thanks for your kind advice. We have confirmed the Authorship Guideline for case report.

To be corrected! ORCID number: 0000-0002-1871-6686 - whose number is this exactly?

Reply: The corresponding author name has been added.

Hyperamyloemia(Abtract) - hyperamylasemia is right.

[Reply: Revised.](#)

Key Words can be modified. E.g., the word "Spyglass" should be replaced with "peroral cholangioscopy";

[Reply: Replaced.](#)

it will be better to remove "ENBD" and add "obstructive jaundice".

[Reply: Revised.](#)

Mirizzi syndrome is a rare clinical syndrome characterized by stenosis or obstruction of the common hepatic duct or common bile duct due to stones incarcerated in the cystic duct or the neck of the gallbladder (Introduction) - this definition is not complete. It omits the second part, which deals with cholecystobiliary fistulas. Perhaps the authors left only that part of the definition that is relevant to their case, but from a scientific point of view, this approach is incorrect.

[Reply: Revised. Please check the first sentence of the Introduction.](#)

electrohydraulic lithotripter, and laser lithotripter (Introduction) - "electrohydraulic and laser lithotripsy" is better.

[Reply: Revised.](#)

pain without causes (CasePresentation) - a bad expression. To be replaced.

[Reply: Revised.](#)

stones in the posterior segment of the duodenum(Case Presentation) - I think, this is a translation error. Maybe, in the retroduodenal part of the common bile duct? history of "hypertension" for 10 years and therefore had been taking oral "felodipine" (CasePresentation) - "history of arterial hypertension for 10years and therefore had been taking oral felodipine" is better. After admission, the patient was diagnosed with the following diseases: 1. common bile duct stones and acute cholangitis; 2. multiple gallbladder stones and cholecystitis (Case Presentation). - I think, here, the diagnosis is formulated inconsistently and vaguely. My version: "Acute calculous cholecystitis. Choledocholithiasis? Mirizzi syndrome? Obstructive jaundice".

[Reply: Thanks for your kind advice. We have changed all the inappropriate descriptions as you suggested.](#)

Some comments are required here. I believe that the patient had acute cholecystitis, not chronic - this is confirmed by CT data - the gallbladder is enlarged, distended, its wall is thickened. This must be strongly indicated in the diagnosis. Conversely, I believe that the patient did not have acute cholangitis. Both clinical ("...without chills or fever") and laboratory (absence of leukocytosis) data support my opinion.

[Reply: Revised. The unlikely diagnosis has been deleted.](#)

The patient underwent endoscopic sphincterotomy and balloon dilation under endoscopic retrograde cholangiography at our endoscopy center on August 30, 2022, because she presented with acute cholangitis, jaundice, and abnormal bilirubin and liver enzymes, suggesting extrahepatic biliary obstruction, with ERCP indications (Page 4) - I think, the second part of the sentence (after 2022) is absolutely unnecessary. To be removed.

[Reply: Removed.](#)

dilation of the common hepatic duct and intrahepatic bile duct (Page 4) - "intrahepatic bile ducts" is right.

[Reply: Rectified.](#)

the gallbladder was visualized with multiple filling defect shadows in the gallbladder (Page 4) - "in the gallbladder" is an excessive part of the sentence and should be removed. stones incarcerated in the cystic duct, partially in the bile duct, were seen under the direct view (Page 4)-what does it mean? This phrase is worded rather poorly. It can be understood in two ways. You might think that the patient had a combination of Mirizzi syndrome and choledocholithiasis, but then this should be clearly indicated in the text of the article. The second option, in my opinion, is more probable - the stone impacted in the cystic duct partially went out into the lumen of the common bile duct. The sentence needs to be changed so that it is interpreted unambiguously.

[Reply: All revised.](#)

After lithotripsy, the stones were repeatedly removed with the Dormia basket and retrieval balloon (Page 4) - I suggest adding "actionarea" to the sentence, e.g., "...removed from the cystic duct..." or "...removed from the gallbladder cavity...". This can be important for the common reader.

[Reply: The relevant information was added.](#)

disappeared on the second cholangiopancreatography (Page 4) - "on the control ERCP" is shorter and more precise. ...and biliary drainage was unobstructed (Page-4 "... and biliary obstruction was completely resolved" is much better. The patient was postoperatively diagnosed with Mirizzi syndrome with cystic duct stones and stenosis of the junction of the cystic duct and common hepatic duct (inflammation was considered) - Page 4. As with the preoperative diagnosis, I cannot agree with your interpretation. I think the following is correct: "...with acute calculous cholecystitis complicated by Mirizzi syndrome (type I) with cystic duct stones, and obstructive jaundice". As for the second part of the sentence ("and stenosis of the junction of the cystic duct and common hepatic duct (inflammation was considered)"), I propose to remove it completely. The fact of the presence of such a stricture in this case cannot be proved - the lumen of the cystic duct can be very narrow without any inflammation (in normal conditions). And the fact that you managed to pass through the cystic duct with a basket and a balloon makes your diagnosis unlikely.

[Reply: All rectified.](#)

The patient underwent endoscopic sphincterotomy and dilation, lithotripsy, and lithotomy under endoscopic retrograde cholangiography, as well as endoscopic nasobiliary drainage (ENBD) and endoscopic retrograde pancreatic drainage (Page 4) - I propose to remove this sentence as an unnecessarily repeated. In addition, a pancreatic duct stent was placed prophylactically (page 4) - I propose to place this sentence before "The patient was postoperatively diagnosed...". After surgery, no ERCP-related complications occurred...(Page 4) - I believe the information in the abstract is more truthful (After the operation, the patient developed transient hyperamylasemia. Through a series of symptomatic treatments (such as fasting water and anti-inflammation), the patient was improved and discharged). More probably, it was non-severe post-ERCP acute pancreatitis.

I recommend that you add some information:

when the clinical picture of pancreatitis developed, what was the maximum increase in amylase, what treatment was carried out and when the patient was discharged.

[Reply: The inappropriate contents have been modified. Besides, we have added detailed information about the complications in the Case presentation, please see: "However, the patient developed transient hyperamylasemia..."](#).

FINAL DIAGNOSIS: Mirizzi's syndrome with gallbladder duct stones; stricture at the junction of the cystic duct and common hepatic duct (inflammatory considered) - see my comment (regarding diagnosis) above. The paragraph called "Treatment" can be completely removed because the information contained in it completely repeats the above.

[Reply: Deleted.](#)

yellow urine was better than before, yellow skin staining (Page 5) - "her jaundice gradually resolved" is better. After the operation, there were no ERCP-related complications and gradually decreased liver function indicators (such as bilirubin). Therefore, it's planned to perform laparoscopic cholecystectomy (LC) or open cholecystectomy (OC). - Page 5 - to be removed! Unnecessary repetition!

[Reply: Revised.](#)

The patient underwent LC after the operation half a year, with no recurrence (Page 5) - "Six months later, the patient underwent laparoscopic cholecystectomy without complications" is better. the gallbladder duct is closely parallel to the common hepatic duct; (2) the gallbladder stone is incarcerated in the Hartmann's pouch or gallbladder duct (Page 6) - please use the term "cystic duct" instead of "gallbladder duct" (presented twice!) type V, any types of Mirizzi syndrome combined with gallbladder-bile duct fistulas (Page 6) - this is a gross mistake! Type V is a combination of cholecystobiliary fistula with cholecystoenteric fistula, with gallstone ileus or without it.

[Reply: Rectified.](#)

The long paragraph ending with [3] (Page 6) - apparently this citation is incorrect. You describe the Beltran classification, so refer to Beltran! In the cited work [3] there

is no such detailed description, there is only a drawing. relatively reliable basis for the diagnosis of Mirizzi syndrome (Page 6) - "... relatively reliable diagnostic basis" is better.

Reply: Sorry for this error. The incorrect citation has been rectified. And the inappropriate description has been updated.

Moreover, ERCP is necessary to improve the accuracy of the preoperative diagnosis of Mirizzi syndrome (Page 6) - "of Mirizzi syndrome" just can be removed. ...diagnosis of Mirizzi syndrome and can elevate the rate of the preoperative diagnosis of Mirizzi syndrome (Page 7) - "preoperative diagnosis of this condition" seems to be better.

Reply: Revised.

SpyGlass is indicated for the treatment of massive bile duct stones, partial cystic duct stones, gallbladder flushing and drainage, partial intrahepatic bile duct stones, common bile duct stones, and suspect occupied lesions of bile ducts (Page 8) - this sentence is looking bad. To be corrected. images of the common bile duct, cystic duct, and hilar on the screen (Page 8) - "images of the whole biliary tree..." is better. Please add to the Conclusion some thoughts regarding possible complications of the method.

Reply: Revised. Besides, the contents about possible complications of the method have been added in the Conclusion, please see: "The possible complications of SpyGlass-assisted X-ray-free ERCP..."

Your Conclusion is looking "too sweet". Figure 1 - pictures are of low quality. If possible, replace the photo from the film with an electronic image. Please add some arrows and arrowheads into the pictures in the Figures 1 and 2, and relevant explanations to the legends.

Reply: We have added the possible complications of SpyGlass-assisted X-ray-free ERCP in the Conclusion. Besides, Figure 1 and 2 have been updated.

And finally: to the discussion section where the authors wrote about the various classifications of Mirizzi syndrome, I recommend adding the classification of Morelli et al.(1978), which distinguishes between acute and chronic forms of the syndrome. In the observation of the authors, as I believe, there was precisely an acute form. To the Reference List, respectively, you also need to add this work (Endoscopy. 1978 May;10(2):109-12. doi: 10.1055/s-0028-1098275. Can Mirizzi syndrome be classified into acute and chronic form? An endoscopic retrograde cholangiography (ERC) study. A Morelli, F Narducci, R Ciccone)

Reply: Thanks for your valuable comments. We have added the relevant contents about this previous study you suggested in the discussion, please see: "Furthermore, Morelli et al. reported 3 cases of Mirizzi Syndrome", the corresponding citation has been added in the reference, please check ref 4 for details.