A point-to-point response to reviewers and science editor comments

The authors are grateful to the reviewers and science editor for providing us the excellent comments which are very constructive and very helpful for improving the manuscripts. Accordingly, we rigorously revised the manuscript in a point-by-point manner, as shown below.

Reviewer #1:

Specific Comments to Authors:

1. You report that patient had cholecystitis 2 months ago, that also with hypotension. So was he admitted, what lab tests were done for that during that admission, was any culture done, was he treated with antibiotics etc? This 2 month interval is rather short and it seems that patient was inadequately managed that led to the current state of affairs? I am not judgmental here, but the history of sepsis with hypotension has direct relevance to the case descriptions provided.

Response: His past medical history about cholecystitis with hypotension was added. The laboratory tests showed white blood cell count 10.05 × 10^9/L and procalcitonin 21.2 ng/mL, blood and bile cultures were not performed. He received empirical antibiotics with ceftazidime 2.0 g and ornidazole 0.5 g intravenous route every 12 h for 10 days. We speculated that the liver abscesses were attributable to the cholecystitis with inadequately management that led bacteria to invade the liver parenchyma via the gallbladder bed.

2 Authors mention too many blood tests with normal laboratory reference range. Some of the blood tests dont have the reference mentioned, some have. PCO_2 is absent - why? I suggest rather than so many values pls report as e.g. uremia, acidosis, coagulopathy etc kind of phrases - so many reports gets the message diluted.

Response: All normal laboratory reference ranges were deleted. PCO_2 was undetectable when the reduction in PCO_2 was beyond the range of the Point-of-Care Testing device.

3. CT scan should not describe as "destructive liver lesion". desctructive is not apt

term. Change it.

Response: The inappropriate term "destructive liver lesion" was deleted.

4. Was the patient on insulin or not? You mention "or" insulin.

Response: The patient was treated with insulin, the word **“**or**”** was corrected to “and”.

5. What was the cause of chronic diarrhoea for so many years. I am not sure whether chronic non infectious diarrhoea is an aetiology for pyogenic liver abscess. Infective diarrhoea -- yes, but chronic diarrhoea i am skeptical. Pls edit this or support this with evidence.

Response: The paragraph about etiology of IKLAS was revised. Our patient suffered from chronic diarrhea without abdominal pain and fever which may be noninfectious and functional diarrhea and is not considered the etiologic factor for IKLAS.

6. Your statement - The mortality rate is reported to be extremely high at 27-30% [11-12]. Both citations 11 and 12 are too old - 1993 and 1995. Pls edit this statement to make more recent relevance and include new recent citations on gas forming liver abscess. There is a world review as well as comparative study between gas and non-gas forming liver abscess.

Response: We have replaced these old citations with new ones.

7. Citation 14 and 16 are too old. Edit the statements - statistics to align to recent outcomes and dont make it sound so bad. Gas forming has high mortality risk, agree - but stating 71% risk based on 1986 manuscript is unfair. Pls edit to include recent or current data.

Response: We have deleted too old citation 14, the mortality rate is 27-30% based on 2017 manuscript.

8. Patient died after 22 hours in hospital. Patient was sick. Agree that surgery was refused by family. What about non-surgery approach e.g. percutaneous drainage? One of the core principles of sepsis treatment is source control. It appears that team invested too many resources in intensive care, but did not complete the treatment as a whole. Source control is so important. It is not done and 22 hours is actually a fairly long time interval for perc drainage to be done. Pls elaborate this and recognize this as

your limitation and put this as learning lessons. I would argue if patient was managed with palliative intent than so much intensive care treatment was not necessary.

Response: The patient's condition was critical and deteriorated following admission without easy access to computed tomography. We attempted percutaneous liver abscess drainage guided by bedside ultrasound, but did not succeed due to liver abscess cavities totally occupied by air and pneumoperitoneum. Infectious source control is very important, failure to timely surgery or percutaneous drainage is our limitation and the lessons should be learned.

8. Conclusions cannot be so many and so elaborate. It is core 2-3 sentences that you put as learning or take away messages. Conclusion is not space to write theory that percutaneous drainage should be done etc - conclusion is summary of your report, take away points. So edit this.

Response: We have edited the conclusions.

9. I would also want to see discussion about klebsiella strains causing emphysematous infections e,g. variicola is recently reported to cause emphysematous cholecystitis. Pls discuss such microbial aspects too.

Response: We have added a paragraph about *K. variicola*.

Reviewer #2:

Specific Comments to Authors: Congratulation for the very good paper. Liver abscess caused by K. pneumoniae are indeed a rare pathology, let alone a systemic complication such as this one. Perhaps you should look into one of the most comprehensive Romanian experiences regarding liver abcscesses, published here: https://www.revistachirurgia.ro/cuprinsen.php?EntryID=244. Full English version is available upon request from the authors.

Science editor:

The author described systemic emphysematous infection caused by Klebsiella pneumonia. There are some concerns about this article.

1. It is possible that adequate therapy was not done on acute cholangitis before the onset of this systematic infection.

Response: The patient had acute cholecystitis not cholangitis 2 mo ago. We speculated that the liver abscesses were attributable to the cholecystitis with inadequately management that led bacteria to invade the liver parenchyma via the gallbladder bed.

2. The lack of laboratory data to explain in this case report（e.g, PCO2).

Response: PCO_2 was undetectable when the reduction in PCO_2 was beyond the range of the Point-of-Care Testing device.

3. The authors did not explain the etiology of diarrhea.

Response: Our patient suffered from chronic diarrhea without abdominal pain and fever which may be noninfectious and functional diarrhea.

5. The referees are old for the mortality rate.

Response: We have replaced these old citations with new ones.

6. The treatment might not be enough(e.g., long interval for starting drainage) for this case. They should explain the reasons.

Response: The patient's condition was critical and deteriorated following admission without easy access to computed tomography. We attempted percutaneous liver abscess drainage guided by bedside ultrasound, but did not succeed due to liver abscess cavities totally occupied by air and pneumoperitoneum. Infectious source control is very important, failure to timely surgery or percutaneous drainage is our limitation and the lessons should be learned.

6. The conclusion is so busy. It should be more concise.

Response: We have edited the conclusions.

7. Variicola is also reported to cause emphysematous cholecystitis. They should iscuss these.

Response: We have added a paragraph about *K. variicola*.