Author’s response to reviews

Title: Retroperitoneal abscess with pylephlebitis caused by lumbar acupuncture: A case report

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Author’s response to reviews:

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Dr. Guangde Tu, PhD
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Re: Manuscript ID. : BSUR-D-19-00064R1

Title: Retroperitoneal abscess with pylephlebitis caused by lumbar acupuncture: A case report

Dear Dr. Guangde Tu:

We thank the reviewers and editorial staff for their constructive and valuable comments on our manuscript. We now provide a revised manuscript for consideration for publication in BMC Surgery. Attached are our point-by-point responses to the reviewers’ comments, and the corresponding changes to the text have been highlighted in yellow in the revised manuscript file.

We hope that the paper will be of substantial interest to the readership of BMC Surgery. All authors agree with the submission and confirm that the material has not been published previously and is not under consideration for publication elsewhere.

On behalf of all of the authors and with best regards,

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Editor comments:

Please include a cover letter with a point-by-point response to the comments, describing any additional experiments that were carried out and including a detailed rebuttal of any criticisms or requested revisions that you disagreed with. Please also ensure that all changes to the manuscript are indicated in the text by highlighting or using track changes.
Response: Thank you for your review. The manuscript has been carefully rechecked, and the appropriate changes have been made in accordance with the reviewers’ suggestions.

Reviewer reports:

Elroy Patrick Weledji, BSC, MSC, MBBCHBAO, FRCS (Edin) (Reviewer 1): The conclusions in the abstract are not well written grammatically. You cannot start a sentence with "And".
Response: Thank you for your comment. We removed the word “And” in the conclusion section of the abstract. In addition, we reviewed and corrected all grammatical errors in the text with the assistance of a specialist. We have attached the certificate from the language-editing company as a separate file.
Line 39-40 of revised text:
Acupuncture is a possible cause of otherwise unexplained soft tissue infections, such as RA, especially in Asian countries.

Roneil Parikh, MBBS (Reviewer 2): Congratulations to the authors for presenting a wonderful case and the difficulty associated with the diagnosis and management of occult retroperitoneal abscesses. Acupuncture is a rare cause, and this does highlight the potential morbidity associated with the same in non-sterile fashion/untrained hands.

Suggested revisions:
There are many grammatical errors in this paper and needs to be carefully revised so that it is better to read. I have tried to highlight a few below along with other queries.

1. Title - Is this a "FATAL" RA - implying the patient died - Title could be revised
Response: We apologize for this confusing description. We have removed the word “fatal” from the title and throughout the manuscript.
Modified title:
Retroperitoneal abscess with pylephlebitis caused by lumbar acupuncture: A case report

2. Line 24 - Please attach RA next to retroperitoneal abscess to define the abbreviation in the paper than at the end of the manuscript.
Response: Thank you for your suggestion. We defined the abbreviation “RA” at the beginning of the abstract according to your comment and modified the abstract section.
Revised abstract:
Background: Retroperitoneal abscess (RA) is an unusual life-threatening disease that has insidious and occult presentations. Although the incidence of this disease is low, diagnosis and treatment are challenging due to its nonspecific presentation and the complex anatomy of the retroperitoneal space.
Recently, we experienced one case of a RA with extensive thrombophlebitis of the portal venous system. Case presentation: An 80-year-old male presented to the emergency room with symptoms and signs of septic shock; however, the decision making for diagnosis and treatment was difficult, as no clinical and radiological evidence supported key findings regarding the origin of sepsis. Although this patient eventually recovered after surgical drainage, we suggested that more straightforward diagnostic and treatment procedures were required in this patient to avoid possible critical complications. Through a retrospective review of operative findings, patient history, and microbiology, we found that the RA in this patient was caused by lumbar acupuncture, which is usually performed for the management of chronic back pain with long needles. Conclusion: Early surgical intervention should be considered for RA whenever the patient does not respond to broad-spectrum antibiotic treatment. Acupuncture is a possible cause of otherwise unexplained soft tissue infections, such as RA, especially in Asian countries.
several diverticula of the sigmoid colon with multiple air bubbles in the portal venous system (Fig. 1a and b). Nevertheless, we found no abnormalities in the biliary system, such as a gallstone or cholelithiasis; however, no further information could be established via the CT scan because the study was performed without contrast enhancement due to the decreased renal function of the patient.

7. Line 76 - "we planned to perform critical care with fluid resuscitation" And " for shock reversal" are improper terms and sentence needs to be re-written
Response: Thank you for your comment. We modified the sentence for a clear description.
Line 76-81 of revised text:
The initial diagnosis made at the time of admission was septic shock caused by atypical biliary disease; therefore, this patient was admitted to our surgical intensive care unit and received fluid resuscitation and empirical antibiotic treatment (meropenem against suspicious gram-negative bacteremia), although we could not determine the definitive infectious source of septic shock in this patient.

8. Line 86 - Was there evidence of Hepatic portal venous Gas or pyelophebitis or thrombophlebitis?
Response: Thank you for your comment. Yes, the portal venous gas was observed on the initial CT scan, as shown in Fig. 1, and it was still observed and progressed on the second CT scan (Fig. 2), which was one piece of evidence that led us to perform exploratory laparotomy. We described this point (portal venous gas on initial CT scan) in line 71 of the original text and in line 72 of the revised text. Please refer to our response to your comment 15 for further explanation.

9. Line 91 - "Mucosal lesion" - was there any evidence of diverticular disease
Response: Thank you for your comment. We modified this sentence to clarify the observation.
Line 92-94 of revised text:
We performed sigmoidoscopy to identify the diverticula of the sigmoid colon; however, no diverticular disease was found (Fig. 3).

10. Line 94 - "diagnostic operations" implies more than one? Do you mean an exploratory laparotomy?
Response: Thank you for your comment. We corrected this grammatical error.
Line 94-96 of revised text:
As the results of the diagnostic work-up were conflicting and fatal outcomes were expected due to persistent pylephlebitis and abdominal pain, we performed an exploratory laparotomy on the 8th hospital day.

11. Line 106 - "distant" replace with ?other possible sources
Response: Thank you for your comment. We modified the sentence according to your suggestion.
Line 108-109 of revised text:
… no infectious origin of the RA was found in the gastrointestinal or genitourinary system.

12. Line 108-111 - "which might be identified" - Very confusing - Do you mean you commenced empiric vancomycin to cover for MRSA?
Response: Thank you for your comment. This patient had received only empirical preoperative
meropenem treatment against gram-negative bacteremia. However, we found during the operation that the infectious origin in this patient was a retroperitoneal abscess. Because MRSA is a major pathogen isolated from retroperitoneal abscesses, we added empirical vancomycin to cover MRSA after the operation. We clarified this point in the revised manuscript.

Line 110-114 of revised text:
After the operation, microbial blood culture tests were performed, and intravenous vancomycin was empirically added to the antibacterial regimen to cover methicillin-resistant Staphylococcus aureus (MRSA), which is one of the major pathogens isolated from RAs

13. Line 147 - "Diagnostic laparotomy"
Response: Thank you for your comment. It was a typographical error, and we corrected it.
Line 151 of revised text:
… this finding led us to perform a diagnostic laparotomy

14. Line 151 - Do you mean the spinal level of acupuncture was consistent with the site of the RA?
Response: Thank you for your comment. Yes, the spinal level of the acupuncture was exactly identical to that of the retroperitoneal abscess. We described this point in lines 150-151 of the original text and in lines 154-155 of the revised text.

15. Figure 1: Arrow suggested presence of gas in the biliary tree - But has been called as "thrombophlebitis" ?? Is that Portal venous gas or Abscess in vein with gas?
Response: Thank you for your comment. It was difficult to distinguish the portal vein gas from the bile duct gas on the non-contrast-enhanced CT scan. However, comprehensive interpretation of consecutive images revealed that the air bubbles were present in the portal venous system, not in the biliary system. We have added an additional image of the initial CT scan as Fig. 1a to clearly show the gas in the portal venous system. Fig. 1 in the original text was changed to Fig. 1b in the revised text. The figure legends were also revised according to the change in the figure numbering.
Modified figure legends:
Fig. 1 Nonenhanced CT at admission showed extensive thrombophlebitis of the portal venous system (a and b, arrowhead) and sigmoid colon wall thickening with diverticulum (b, arrow).

16. Figure 2: ? Gas in vein - not worsening "Thrombophlebiitis"?
Response: Thank you for your comment. The second CT scan (Fig. 2a) showed increased air bubbles and thrombi in the portal venous system compared to those observed on the initial CT scan, and these findings suggest the worsening of thrombophlebitis (pylephlebitis).