Author’s response to reviews

Title: Moraxella nonliquefaciens Bloodstream Infection and Sepsis in a Pediatric Cancer Patient: Case Report and Literature Review

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Author’s response to reviews:

Dear Prof. Aboderin,

Thank you very much for the evaluation of our manuscript and for the encouragement to submit a revised version. We are also grateful for the comments of the Reviewers. Accordingly, we have addressed all comments and included the points into the revised version of the manuscript. Please find below a detailed item-per-item response to the comments on the manuscript. We hope that our revised manuscript is now suitable for publication in BMC Infectious Diseases. Thank you for evaluating our manuscript and your time in this matter.

Sincerely,

Carlos L. Correa-Martinez

EDITOR COMMENTS

♣ ABSTRACT:
1. Consider replacing the word apathogenic with non-pathogenic 2. Change fully recovery to full recovery after appropriate antibiotic treatment 3. Line 40, at best M. nonliquefaciens is an opportunistic pathogen, so reflect this or change 'this pathogen' to 'organism'

♣ CASE PRESENTATION
1. Write MIBG fully
Line 79-80: temperature is a vital sign, being elevated, vital signs cannot be within normal limits!
DISCUSSION AND CONCLUSIONS

1. Lines 133-134: Consider 'In spite of absence/lack of specific susceptibility breakpoints for M. nonliquefaciens, an in vitro......'

We thank you for the helpful comments. All suggested changes have been incorporated into the revised version of the manuscript.

REVIEWER REPORTS

Reviewer 1 (Mohammed Yahaya):

It is preferable to use words for number 1 to 9 and the proper Arabic numerals for number 10 and above (line 45)
- We have made the appropriate changes.

Replace the phrase "shed lights" with "highlights" on the first line of conclusion in the abstract section (line 54).
- We have replaced “shed lights” by “highlights”.

There was a 24-hour delay in the removal of the Broviac catheter despite isolating Moraxella nonliquefaciens (and knowing that it can form biofilm). Can reasons to this be explained in the discussion section.
- We thank the reviewer for this comment. The delay was caused by the fact that removing the catheter implied a surgical procedure under general anesthesia that was not listed as an emergency procedure for after hours as the patient was stable. With evolving signs of sepsis, the indication changed and the indwelling catheter was promptly removed. While this explanation is difficult to incorporate into case report or discussion, however, we have stressed the importance of prompt source control by adding the term ‘immediate’ to the last sentence of the third paragraph of the discussion (line 140).

This is an interesting case and the authors tried to justify Moraxella nonliquefaciens as the implicating organism, but can the authors consider how they rule out 'neutropenic fever' especially in the discussion points, since the patient also clinical improved with neutrophil engraftment by day 14.
- As the reviewer suggests, although unlikely, the possibility of Moraxella being a contaminant is not completely excluded. However, in a persistently neutropenic patient with an invasive bacterial infection, antibacterial treatment is considered suppressive and in most instances will only become curative along with rising neutrophil counts. Similarly, in the absence of a documented infection, approximately one third of patients will not defervesce with appropriate empirical therapy until neutrophil recovery. Since these are general principles in the management of the febrile neutropenic patient, we would like to ask to be allowed to abstain from a comment on this point.

What guided the use of Meropenem on this patient?
- As stated in the description of the patient’s clinical course, antibacterial therapy was escalated due to persistent fever with the possibility of a second invasive infection in the state of profound neutropenia. This was according to our institutional standard of care (standard operating procedure) that asks for escalating empirical antibacterial therapy in patients with expected prolonged and profound neutropenia who are persistently febrile (>72 hours) on the initial antibiotic regimen. For clarification,
we have added ‘per institutional standard’ to the respective sentence.

Journal names and et al should be italicized in the reference section (line 184).
- We have made the appropriate changes.

Line 8 in the time line, replace 'Stamm cell' with 'stem cell'.
- We apologize and have corrected the spelling.

Reviewer 2 (Oyekola Abiri):

Page 2, Lines 48 - 52: The authors wrote "Besides a chemotherapy-related mucositis and an indwelling Broviac catheter (removed), no infection focus was identified in the physical ex-amination was removed. Moraxella nonliquefaciens was identified in blood cultures. After antibiotic treatment and neutrophile recovery, the patient could be discharged." This may be better expressed as "Besides chemotherapy-related mucositis and an indwelling Broviac catheter (removed), no infection focus was identified on physical examination. Moraxella nonliquefaciens was identified in blood cultures. After antibiotic treatment and neutrophil recovery, the patient was fit for discharge."
- We thank the referee for his recommendation and have made the appropriate modification to the manuscript.

Page 4, Lines 100 and 101: "A computed tomography of the chest was within normal limits" may be better expressed as "A computed tomography of the chest revealed no abnormality"
- We have made the suggested modification of the sentence.

Page 6, Lines 133 - 136: The authors wrote "In spite of lacking specific susceptibility break-points for M. nonliquefaciens are available, an in vitro resistance pattern frequent in the genus Moraxella was observed, with resistance against penicillin, amoxicillin, ampicillin und piperacillin.......". Consider rewriting as ""In spite of a lack of specific susceptibility break-points for M. nonliquefaciens, an in vitro resistance pattern frequent in the genus Moraxella was observed, with resistance against penicillin, amoxicillin, ampicillin and piperacillin......."
- We thank the reviewer for his advice, and we have modified the sentence accordingly. Pl. also see responses to the Editor’s comments.

Page 14: This is a beautiful figure summarizing the timeline of this infection. It is noticed that there is no reference made to this figure in the body of the text. The authors should consider making reference to this figure where appropriate within the text. In addition, a befitting title should be given to this figure. Finally, "Stamm cell" should be corrected to read "stem cell" in this figure.
- We have made the suggested modifications.