Author's response to reviews

Title: Clinical and microbiological characteristics of Klebsiella pneumoniae liver abscess in East China

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Version: 4 Date: 7 March 2015

Author's response to reviews: see over
Dear editor,

Thank you very much for your detailed comments. We have read the comments of the reviewers carefully. Revisions were made to address the reviewer’s comments. The following is the response to the comments.

Referee 1:

Major Compulsory Revisions:

In Table 3, the authors showed that there is one serotype K1 strain with ST23 and one serotype K2 strain with ST86. According to previous data and my experience, I have never seen ST23 is non-K1 and ST-86 is non-K2. I suggest the author re-test the strain with PCR of wzyKpK1 and wzyKpK2. In addition, Anti-sera for K1 and K2 should be tested if anti-sera for serotype K1 and K2 are available

Response: It is a pity that anti-sera for serotype K1 and K2 are unavailable. Hence, we retested the strains (F2 and B10) with PCR of wzyKpK1 and wzyKpK2 for three times according to your suggestion. The primers were designed according to the reference article with the title of “Molecular Typing and Virulence Analysis of Serotype K1 Klebsiella pneumoniae Strains Isolated from Liver Abscess Patients and Stool Samples from Noninfectious Subjects in Hong Kong, Singapore, and Taiwan”. The PCR results showed that the strain F2 (ST23) was negative
for both wzyKpK1 and wzyKpK2, and the stain B10 (ST86) was positive for wzyKpK2. The results were in accordance with our previous results.

<table>
<thead>
<tr>
<th>Serotype (target gene)</th>
<th>Primer</th>
<th>Size of PCR product (bp)</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>K1 (wzyKpK1)</td>
<td>5′-GGTTGCTTTTACATCTTTGC-3′</td>
<td>1,283</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>5′-GACTGGCTACCTCTGCTTTCA-3′</td>
<td>641</td>
<td>20</td>
</tr>
<tr>
<td>K2 (wzyKpK2)</td>
<td>5′-GACCCGTATTTATATATTACGG-3′</td>
<td>536</td>
<td>25</td>
</tr>
<tr>
<td>K5 (wzyKpK2)</td>
<td>5′-TGGTAGTGTGCTCGGGA-3′</td>
<td>531</td>
<td>25</td>
</tr>
<tr>
<td>mmpA</td>
<td>5′-CTGGCATGACCCATCTTTCA-3′</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerobactin</td>
<td>5′-GCATAGGCCGATACGAAATC-3′</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aerobactin</td>
<td>5′-CTGGCTCGGATCGTTTATT-3′</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Referee 2:

Minor essential revisions:

Abstract - still focuses on microbiological characteristics, despite the title and the body of the text (in this revised version) now describing more fully the clinical characteristics. Please revise the results section of the abstract to summarise the clinical data.

Response: We revised the result in abstract according to your advices.

Line 34 - please review this sentence for grammar "Vast majority of the strains were susceptible to main antimicrobial agents."

Line 69 - first use of abbreviation HV (outside of the context of hvKP) so
please expand or deplete abbrev and just state "hyper virulent"

Line 85 - "documented in English" - I am unclear what this means - within the English language scientific literature? unclear.

Line 87 - change "very few" to "very little"

Line 119 - change "old" to "older"

Line 121 - review grammar of "Thus, patients with PLA did not undergo drainage but with a positive blood cultures of K. pneumoniae were excluded in this study"

Line 174 - change "In case of more cases were..." to improve grammar, suggest "Where the number of cases was..."

Line 219 - I think the authors mean to signpost readers to table 2 here, rather than table 3. On this topic, I think table 3 (the MLST data) is extraneous and could be moved to supplementary data, rather than in the body of the manuscript.

Line 240 - "there seemed to be more patients" - I think the most that can be said that there is a trend towards this. In fact, please be very careful with phrasing across the whole section between lines 240-260, given p>0.05 for nearly all variables examined.

Line 263 - please review this sentence for meaning "Although the Escherichia coli was the most common pathogen in liver abscess, K. pneumoniae has become the dominant pathogen for liver abscess." Do you mean 'was' in a historical sense? If so, please give the reader some
form of time frame.

Line 321 - "It seemed that string test might not be a reliable method to identify KLA caused by K. pneumoniae." Do the authors mean instead that the string test might not be a reliable method to identify K. pneumoniae with the potential to cause KLA - there is certainly a conclusion to be drawn from this piece of data, but the current phrasing is unclear.

Response: We have revised these spelling and grammatical errors in the article according your advices. Table 3 (the MLST data) was moved to supplementary data. In addition, “Although Escherichia coli was the most common pathogen in liver abscess before the 1980s, K. pneumoniae had become the dominant pathogen for liver abscess during the past two decades.” We added the time frame in the sentence.

Sincerely,

Yun-song Yu

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China