

Peer Review File

Article information: <http://dx.doi.org/10.21037/apm-21-338>

Comment 1: I do have some reservations in deducing that a history of previous surgery served as a protective factor for patients with CRKP infection and attributing that to the idea that patients who were able to undergo surgery tended to have a better overall health status and fewer comorbidities. Still I guess we need more details on the types of these surgeries before getting up with this conclusion. So it will be much more convincing if the authors reported more details on these surgeries.

Reply 1: Thank you for your precious advice. We also find it surprising that a previous surgical history (OR: 0.78, 95% CI: 0.61–0.99) was associated with a better clinical outcome on CRKP-infected patients. In fact, a total of 8 studies included investigated the risk factor of previous surgical history, as shown in the following references [1-8], as well as the forest plot-previous surgery attached. Five of the studies suggested a higher proportion of post-surgery events in the survivor group than in the non-survivor group, though the difference was not significant probably due to the limited sample size of each individual study.

Following your advice, we investigated these studies, trying to gain more details on surgery history. However, limited information was provided. We apologize for the potential confusion it may cause.

On the other hand, a previous study has drawn a similar conclusion about the risk factor of mortality in *Acinetobacter baumannii* infected ventilator-associated pneumonia patients[9]. The authors made a deduction that better organ function in patients who could tolerate surgery may be one reason.

1. Falcone M, Russo A, Iacovelli A, et al., Predictors of outcome in ICU patients with septic shock caused by *Klebsiella pneumoniae* carbapenemase-producing *K. pneumoniae*. Clin Microbiol Infect, 2016. 22(5): p. 444-50.

2. Freire, M. P., Pierrotti, L. C., Ibrahim, K. Y., et al., Infection with Klebsiella pneumoniae carbapenemase (KPC)-producing Klebsiella pneumoniae in cancer patients. *Eur J Clin Microbiol*, 34(2), 277-286.
3. Lin, Y. T., Chuang, C., Su, C. F., et al., Efficacy of appropriate antimicrobial therapy on the survival of patients with Carbapenem non susceptible Klebsiella Pneumoniae infection: a multicenter study in Taiwan. *Medicine*, 94(33).
4. Su CF, Chuang C, Lin YT, et al., Treatment outcome of non-carbapenemase-producing carbapenem-resistant Klebsiella pneumoniae infections: a multicenter study in Taiwan. *Eur J Clin Microbiol Infect Dis*, 2018. 37(4): p. 651-659.
5. Li Y, Li J, Hu T, et al. Five-year change of prevalence and risk factors for infection and mortality of carbapenem-resistant Klebsiella pneumoniae bloodstream infection in a tertiary hospital in North China. *Antimicrob Resist Infect Control*. 2020 Jun 1;9(1):79. doi: 10.1186/s13756-020-00728-3.
6. Neuner EA, Yeh JY, Hall GS, et al., Treatment and outcomes in carbapenem-resistant Klebsiella pneumoniae bloodstream infections. *Diagn Microbiol Infect Dis*, 2011. 69(4): p. 357-62.
7. Qureshi ZA, Paterson DL, Potoski BA, et al., Treatment outcome of bacteremia due to KPC-producing Klebsiella pneumoniae: superiority of combination antimicrobial regimens. *Antimicrobial agents and chemotherapy*, 56(4), 2108-2113.
8. Tumbarello M, Trecarichi EM, De Rosa FG, et al., Infections caused by KPC-producing Klebsiella pneumoniae: differences in therapy and mortality in a multicentre study. *J Antimicrob Chemother*, 2015. 70(7): p. 2133-43.
9. Ju M, Hou D, Chen S, Wang Y, Tang X, Liu J, Chen C, Song Y, Li H. Risk factors for mortality in ICU patients with Acinetobacter baumannii ventilator-associated pneumonia: impact of bacterial cytotoxicity. *J Thorac Dis*. 2018 May;10(5):2608-2617. doi: 10.21037/jtd.2018.04.86. PMID: 29997922; PMCID: PMC6006127.

Changes in the text: None.

Comment 2: Colistin non-susceptibility were among factors of non-survival as mentioned in table 2. More details are needed regarding this specific point like

method of testing susceptibility to this critical antibiotic. As starting from 2015 only broth microdilution was documented as the only reliable method of testing susceptibility to this drug.

Reply 2: Thank you for your precious advice, and we apologize for the mistake. We re-analyzed the studies that only used broth microdilution as colistin susceptibility test. The result was shown in forest plot-colistin susceptibility attached, and no significant difference was observed.

Changes in the text: Revision has been made in Table 2.

Comment 3: Figure 3, diabetes mellitus should not be written in capital.

Reply 3: We apologize for the spelling mistake, and revision has been made in the latest version.

Changes in the text: Revision has been made in Figure 3.

Comment 4: Single centre abbreviation not mentioned in text (SC) in table 1.

Reply 4: We apologize for the spelling mistake, and revision has been made in the latest version.

Changes in the text: Revision has been made in Table 1.

Comment 5: The language throughout the article is fine, only few grammatical mistakes that need revision.

Reply 5: Thank you for your advice. We have re-checked the grammatical mistakes and revision has been made.