Author's response to reviews

Title: Cytokine responses to Staphylococcus aureus bloodstream infection differ between patient cohorts that have different clinical courses of infection.

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Author's response to reviews: see over
We would like to thank the reviewer for his careful consideration of our recently revised submission. We have addressed the outstanding issues raised by this reviewer and our responses are outlined below. Both major compulsory and minor essential revisions have been made. The final revised manuscript is uploaded and a version in which changes made are highlighted in yellow is also uploaded under supplemental files.

We hope that these changes are now acceptable to the reviewer and the editor.

Major Compulsory Revisions

The manuscript now includes cytokine data from 4 healthy controls. The rebuttal states that this represents the range of values but it is in fact the mean average. Furthermore these data are not mentioned at all in the manuscript.

Author’s Response

The control data should have been stated as mean and this correction will be made. In addition, reference to the healthy controls is now included.

Changes to text

Lines 85-86 ‘Plasma was also prepared from the blood of four healthy control individuals.’

Lines 114-115 ‘The levels of IL-6, GRO-γ, RANTES and leptin were determined in patient and healthy donor plasma samples’

Lines 170-174 ‘Mean levels of IL-6, GRO-γ and RANTES values in healthy individuals were lower than those in patients with complicated and uncomplicated SABSI on the day of diagnosis and seven days later. Mean leptin levels, although lower in healthy individuals than those with uncomplicated SABSI, were raised in healthy individuals compared to those with complicated infection (Figure 3).’

Minor Essential Revisions

Lines 163 and 166 refer to Figure 2, Panel A/C/D. This should be Figure 3, Also, no reference made to panel B, why not?
Authors response

This error has been rectified. This should have read ‘Figure 3’. Panel B was not referred to because it did not contain data that was statistically significant, however in the interest of completeness, these data will also be presented in the text.

Changes to text

Lines 164-166 ‘(Figure 3, panel A). Mean GRO γ levels were greater in patients with complicated SABSI compared to uncomplicated SABSI but these differences were not statistically significant (Figure 3, panel B).’

Line 169 ‘(Figure 3, panel D)’

Additional comments

In relation to the concerns raised about the presentation of data in figures 3 and 4, we have reviewed the figures again. We have changes figure 4 to a scatter plot. However, after some consideration, we feel that the data in Figure 3 is best presented in the form of a bar chart (mean ± SEM). There is a large amount of data in figure 3. The need for several different symbols in a scatter plot for each set of data would result in reader confusion. It is also difficult to highlight control values in a scatter plot. However, to clarify the presentation of this bar chart, we have replaced the patterned bars with solid black bars.

Changes to text

Lines 318-321 ‘Figure 4. Scatter plot of GRO-γ levels in patients with SABSI caused by MRSA Vs SABSI caused by MSSA. GRO-γ levels in patients with MSSA (open circles, n=46) or MRSA BSI (closed circles, n= 15) over the course of SABSI. Horizontal bars show the mean values for each cytokine.’

Figure 4 – changed to a scatter plot

Figure 3 – pattern bars replaced with solid black bars.

Error noted in revision

In our revision of the figures, we noted that some data points were missing from Figure 2 (leptin day 7), this error has been corrected.