Reviewer’s report

Title: Predictors for gram-negative monomicrobial necrotizing fasciitis in southern Taiwan

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Reviewer: GB Firth

Reviewer's report:

Dear authors

Thank you for the opportunity to review your paper entitled: 'Predictors for gram-negative monomicrobial necrotizing fasciitis in southern Taiwan.'

Over a three year period 186 patients were diagnosed as having necrotising fasciitis. Of these 100 cultured a single organism. 55 of these were gram negative and these were found to have the following associations: more seawater or seafood contact history, hyperlactataemia and low fibrinogen levels.

1. This study is an interesting paper but I struggled to see the importance of your aim and how this has relevance clinically:

The aim of the study is to detect more reliable predictors between gram negative and gram positive monomicrobial NF of limbs.

Please emphasise the relevance of this - usually the associations given will be associated with an outcome, good or bad, rather than an organism type - this needs to be reviewed in the context of what the study is actually trying to do. You did mention the difference in outcome - please clarify this and express it more clearly.

2. For a very rare condition, 186 patients in just over three years seems like an extremely large number, given the numbers published globally in the literature. How exactly was the diagnosis made regarding the necrosis - were superficial infections included which were in fact not NF? Please clarify this and explain the very high numbers such a short time.

I also cannot understand how you collected so many patients in this time period because in a previous paper from Taiwan (Lee et al - BMC Infect Dis. 2011 Jan 5;11:5. doi: 10.1186/1471-2334-11-5.) you collected 46 patients over 6 years - how could you collect double that number now in half the time?

3. Mortality rates are mentioned in the discussion. Please give further results of clinical outcomes - amputations and deaths resulting from NF in the current study. Please also state what treatment was given - number of debridements, number of amputations, level of amputations, mortality rate
etc to emphasise the aim of your study and why this topic is so important as you seem to highlight.

4. How many culture negative patients were there who were excluded despite clinical features of NF?

5. Table 4 shows Gram positive patients had an Hb of 4 - please confirm?

6. Table 5- the CI for seawater exposure is very high - please explain this. Please also explain why seawater exposure is not a confounding factor as a result of this very wide CI.

7. Please clarify your diagnostic criteria for NF.

8. Please consider using more recently published articles on this subject for inclusion in your paper, especially regarding comparative data from systematic reviews.

Yours sincerely

Reviewer

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I recommend additional statistical review

**Quality of written English**

Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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