Peer Review Report

Review Report on Prognostic Role of IL-34 in Sepsis and Sepsis-Induced Acute Lung Injury: Preliminary Results and Future Directions

Original Research, Acta Biochim. Pol.

Reviewer: Harish Chandra
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EVALUATION

Q 1 **Please summarize the main findings of the study.**

No answer given.

Q 2 **Please highlight the limitations and strengths.**

No answer given.

Q 3 **Please comment on the methods, results and data interpretation. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.**

In Methods section
Provide more details about how the sample size was determined.
Include reasons for excluding patients under 18 or with specific comorbidities.
In Results section: Ensure consistency in the use of terms like "survival group/non-survival group" throughout the manuscript.
Highlight key findings with more precise language. For example, rather than "not statistically significant," explain the potential clinical implications despite the lack of significance.
Figures and Tables:
Ensure all figures and tables are self-explanatory with clear legends.
Add detailed annotations to Figures 1-4 for clarity.
Discussion
Key Findings:
Start with a clear summary of major results and their clinical implications.
Critically evaluate the "limited prognostic value" of IL-34 in ALI. Discuss potential confounding factors or alternative explanations.
Relate findings to previous studies on IL-34 and sepsis to establish the novelty.
In Conclusion section
Summarize findings and implications without repeating details from the discussion. Suggest specific directions for future research.
Replace "timely assessment of prognosis and risk stratification are crucial to reduce mortality" with "Timely risk stratification can reduce mortality."
Use consistent medical and scientific terminology throughout

Check List

Q 4 **Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List)**

Title: Think about making the title clearer and more targeted. For instance, "Prognostic Role of IL-34 in Sepsis and Sepsis-Induced Acute Lung Injury."

Make sure the abstract complies with publication requirements and is succinct.

To prevent confusion, make the phrase "limited prognostic value in sepsis with ALI" clear.
Indicate up front the findings' possible uses and clinical significance.
Introduction
To support the case for investigating IL-34 in sepsis and ALI, include more citations to current research.
In the objective in the final paragraph, clearly state the hypothesis and goal.
In Methods section
Provide more details about how the sample size was determined.
Include reasons for excluding patients under 18 or with specific comorbidities.
In Results section: Ensure consistency in the use of terms like "survival group/non-survival group" throughout the manuscript.
Highlight key findings with more precise language. For example, rather than "not statistically significant," explain the potential clinical implications despite the lack of significance.
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Relate findings to previous studies on IL-34 and sepsis to establish the novelty.
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Summarize findings and implications without repeating details from the discussion. Suggest specific directions for future research.
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Q 5 **Is the English language of sufficient quality?**

No answer given.

Q 6 **Is the quality of the figures and tables satisfactory?**

No.

Q 7 **Does the reference list cover the relevant literature adequately and in an unbiased manner?**

No.

Q 8 **Are the statistical methods valid and correctly applied? (e.g. sample size, choice of test)**

Yes.

Q 9 **Are the methods sufficiently documented to allow replication studies?**

No answer given.

Q 10 Are the data underlying the study available in either the article, supplement, or deposited in a repository? (Sequence/expression data, protein/molecule characterizations, annotations, and taxonomy data are required to be deposited in public repositories prior to publication)

No answer given.

Q 11 Does the study adhere to ethical standards including ethics committee approval and consent procedure?

No answer given.

Q 12 Have standard biosecurity and institutional safety procedures been adhered to?

No answer given.

QUALITY ASSESSMENT

Q 13	Originality	
Q 14	Rigor	
Q 15	Significance to the field	
Q 16	Interest to general audience	
Q 17	Quality of the writing	
Q 18	Overall quality of the study