


Suggestions on lactate/albumin ratio as a prognostic marker in acute respiratory distress syndrome

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Dear Editor,

I read the article titled “The blood lactate/serum albumin ratio might represent a good prognostic indicator of 28-day mortality in patients with acute respiratory distress syndrome: a retrospective observational study” by Chen et al.^[1] with great interest and would like to address some points that merit more attention. The study investigates the prognostic value of the lactate-to-albumin ratio (LAR) in predicting 28-day mortality in patients with acute respiratory distress syndrome (ARDS). While the study offers valuable insights, there are several limitations and areas where improvements could enhance its scientific rigor and impact.

The study identifies an optimal LAR cutoff of 0.07 for predicting 28-day mortality, reporting high sensitivity (90.48%) but moderate specificity (60.42%). However, the article does not sufficiently discuss how this cutoff compares to prior studies or its clinical applicability. Shin et al.^[2] previously reported a similar LAR cutoff for sepsis patients and discussed its clinical utility in detail, including potential thresholds for risk stratification. The discussion section could have compared the LAR cutoff with those reported in sepsis or other critical care settings and addressed whether this cutoff is ARDS-specific.

The discussion section could better articulate the practical implications of using LAR in clinical practice, especially given its ease of measurement compared to APACHE II or SOFA scores. The authors could have provided more information on how LAR could be integrated into clinical workflows. Given its simplicity and accessibility, LAR could be incorporated into routine clinical monitoring of ARDS patients, potentially guiding early interventions such as mechanical ventilation or fluid management, as highlighted by the need for practical prognostic tools in ARDS^[3].

The limitations section mentions the single-center design and potential selection bias but does not address the lack of serial LAR measurements or the impact of treatment variations. For instance,

Martin et al.^[4] emphasized the importance of serial albumin measurements in ARDS to capture dynamic changes. Addressing these gaps would have enhanced transparency.

I hope these suggestions are helpful for future revisions or related studies.

Conflict of interest statement

The author declares no conflict of interest.

Author contributions

Yıldız G wrote this article.

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Ethical approval of studies and informed consent

Not applicable.

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References

- [1] Chen J, Gao C, Yang L, et al. The blood lactate/serum albumin ratio might represent a good prognostic indicator of 28-day mortality in patients with acute respiratory distress syndrome: a retrospective observational study. *Emerg Crit Care Med.* 2024;4(2):52–59. doi:10.1097/EC9.0000000000000105
- [2] Shin J, Hwang SY, Jo IJ, et al. Prognostic value of the lactate/albumin ratio for predicting 28-day mortality in critically ill sepsis patients. *Shock.* 2018;50(5):545–550. doi:10.1097/SHK.0000000000001128
- [3] Auriemma CL, Zhuo H, Delucchi K, et al. Acute respiratory distress syndrome-attributable mortality in critically ill patients with sepsis. *Intensive Care Med.* 2020;46(6):1222–1231. doi:10.1007/s00134-020-06010-9
- [4] Martin GS, Moss M, Wheeler AP, Mealer M, Morris JA, Bernard GR. A randomized, controlled trial of furosemide with or without albumin in hypoproteinemic patients with acute lung injury. *Crit Care Med.* 2005; 33(8):1681–1687. doi:10.1097/01.ccm.0000171539.47006.02

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

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