CORRESPONDENCE

Application and internal validation of lung ultrasound score in COVID-19 setting: Correspondence

Dear Editor, "Application and internal validation of lung ultrasound score in COVID-19 setting: The ECOVITA observational study"[1] is an interesting article. The application of lung ultrasonography as a diagnostic and prognostic technique for adult patients with SARS-CoV-2 infection was thoroughly investigated in this study. Through the analysis of particular lung ultrasonography results and the use of scoring systems, the investigators were able to show a robust relationship between lung ultrasonography scores and both the requirement for oxygen assistance and in-hospital mortality. With 1007 patients in the trial, it had a sizable sample size that made the dataset solid for analysis.

Notwithstanding, it is imperative to note the existence of several shortcomings and limitations in our investigation. First off, because operator skill and equipment quality can differ, lung ultrasonography may not be used uniformly in various healthcare settings. This could skew the data and restrict how far the conclusions can be applied. Furthermore, the study did not evaluate the patients' long-term results beyond in-hospital mortality, which could offer important information about how well lung ultrasonography predicts overall prognosis.

Regarding methodological shortcomings, the study might have profited from a more uniform grading system for lung ultrasonography because the results' interpretation might have been arbitrary. Reducing inter-observer variability and validating the results could also be achieved by involving numerous expert operators in the assessment. To further improve the risk categorization model for forecasting outcomes in SARS-CoV-2 patients, the study might have included more clinical factors or biomarkers.

Future investigations are required to corroborate the results of this study and evaluate how lung ultrasonography affects patient outcomes and therapy. Confirming the relationship between lung ultrasonography score and clinical outcomes would require prospective investigations with bigger sample sizes and longer follow-up times. Furthermore, investigating the possible use of machine learning or artificial intelligence to the analysis of lung ultrasonography pictures could improve the precision and effectiveness of this diagnostic tool in assessing respiratory disorders. Lung ultrasonography appears to be a promising adjuvant in the evaluation and treatment of SARS-CoV-2 patients overall, but further studies are required to completely comprehend its therapeutic value.

Authors' contribution

HD 50 % ideas, writing, analyzing, approval.
VW 50 % ideas, supervision, approval.

Declaration of competing interest

Authors declare no conflict of interest.

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Reference

1. Rinaldi L, Lugarà M, Simeon V, Perrotta F, Romano C, Iadevaia C, et al. Application and internal validation of lung ultrasound score in COVID-19 setting: the ECOVITA observational study. Pulmonology. 2024. https://doi.org/10.1016/j.pulmoe.2024.04.012. May 27:S2531-0437(24)00056-4Online ahead of print.

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