Rzeszów University Press 2025
ISSN 2544-1361 (online)
doi: 10.15584/ejcem.2026.1.27

http://www.ejcem.ur.edu.pl
European Journal of Clinical and Experimental Medicine
Eur J Clin Exp Med 2026; 24 (1): 234–235

LETTER TO THE EDITOR

Commentary on the use of D-dimer as a biomarker in chronic obstructive pulmonary disease

Sanjay Gabhale , Rishi Govind Orakkan

Department of Respiratory Medicine, Dr. D. Y. Patil Medical College, Hospital & Research Centre, Pimpri, Pune, Dr. D. Y. Patil Vidyapeeth, Pimpri, Pune (Deemed to be University), India

Dear Editor,

We read with great interest the article, "D-dimer as a potential biomarker in chronic obstructive pulmonary disease" by Patel et al.[1] published in the *European Journal of Clinical and Experimental Medicine*. Although the study explores a relevant clinical question, several methodological and interpretational issues merit consideration.

Methodological issues

The study aimed to evaluate D-dimer for COPD diagnosis and outcome prediction, yet no measures of diagnostic accuracy such as sensitivity, specificity, predictive values, or ROC analysis were reported. Given its cross-sectional design, the study is also not suitable for assessing prognostic outcomes.

The inclusion criteria specify "known cases of COPD", but the control group is not adequately described. It is unclear whether the 54 controls were COPD cases in remission or non-COPD subjects, and the rationale for their selection is not explained. Furthermore, several conditions that can increase D-dimer such as trauma, immobilization, cardiovascular disease, uncontrolled diabetes, autoimmune disorders, and smoking – were not excluded, raising the possibility of confounding.

GOLD classification inconsistencies

The study was conducted between 2023-2024, when the GOLD 2023 report was the valid guideline. Table 3 presents variable FEV1/FVC cutoffs across stages, which is inconsistent with GOLD 2023 definitions. By definition, GOLD requires FEV1/FVC <0.7 to define obstruction, irrespective of severity.[3] Such deviations may lead to misinterpretation of staging and affect the reliability of results.

Phenotyping issues

The study subdivides COPD into "chronic bronchitis, emphysema, and small airway disease." However, contemporary GOLD recommendations no longer emphasize such classifications, as these represent descriptive phenotypes rather than diagnostic categories.[3] Adhering to current standards may have improved the generalizability and comparability of the findings.

Other remarks

The clinical implications of elevated D-dimer in COPD are not fully discussed. Without addressing potential applications – such as exacerbation risk stratification or prognostic monitoring – the practical relevance of the findings remains uncertain. Additionally, typographical errors and incomplete reporting of control group details (e.g., Table 9) reduce overall clarity.

Corresponding author: Rishi Govind Orakkan, e-mail: rishigovindorakkan@hotmail.com

Received: 10.09.2025 / Accepted: 18.09.2025 / Published: 30.03.2026

Gabhale S, Orakkan RG. Commentary on the use of D-dimer as a biomarker in chronic obstructive pulmonary disease. *Eur J Clin Exp Med.* 2026;24(1):234–235. doi: 10.15584/ejcem.2026.1.27.

In conclusion, although the authors highlight an interesting association, limitations in study design, unclear control group definition, inconsistencies with GOLD classification, and reliance on outdated phenotypic categories restrict the clinical utility of the findings. At present, evidence does not justify the use of D-dimer for COPD diagnosis or phenotypic classification without further prospective validation in well-designed studies.

Declarations

Funding
The authors declare that no funding was received for the preparation of this letter to the editor.

Author contributions
Conceptualization: S.G. and G.O.; Methodology: S.G.; Software: R.G.O. Validation: S.G. and R.G.O.; Formal Analysis: S.G.; Investigation: R.G.O.; Resources: S.G.; Data Curation: S.G.; Writing – Original Draft Preparation: R.G.O.; Writing – Review and Editing: S.G.; Visualization: S.G.; Supervision: Dr. S.G.; Project Administration: R.G.O.

Conflicts of interest
The authors declare that there are no conflicts of interest related to this letter to the editor.

Data availability
No new data were generated or analyzed in support of this letter to the editor.

Ethics approval
Ethical approval was not required for this 'Letter to the Editor', as it does not involve any new research on human or animal subjects.

References

1. Patel AV, Sharma V, Maheshwari P, et al. D-dimer as a potential biomarker in chronic obstructive pulmonary disease. *Eur J Clin Exp Med*. 2025;23(2):408-414. doi:10.15584/ejcem.2025.2.20
2. Killeen RB, Kok SJ. D-dimer test. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; January 2025. Updated June 22, 2025. Accessed September 10, 2025. https://www.ncbi.nlm.nih.gov/books/NBK431064/. Accessed September 10, 2025
3. Agustí A, Celli BR, Criner GJ, et al. Global Initiative for Chronic Obstructive Lung Disease 2023 Report: GOLD Executive Summary. *Arch Bronconeumol*. 2023;59(4):232-248. doi:10.1016/j.arbres.2023.02.009