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Letter to the Editor

Comment on "the Role of Combined C-reactive Protein and Albumin Indices in Predicting Prolonged Hospital Stay in Acute Pancreatitis: A Prospective Observational Study"

"Akut Pankreatitte Uzun Süreli Hastane Yatışını Tahmin Etmede Kombine C-Reaktif Protein ve Albümin İndekslerinin Rolü: Prospektif Gözlemsel Çalışma"

Rachana MEHTA[1], **Ranjana SAH**[2]

[1]Manav Rachna International Institute of Research and Studies, Faridabad, India
[2]Dr. D. Y. Patil Medical College Hospital and Research Centre, Dr. D. Y. Patil Vidyapeeth (Deemed to be University), Maharashtra, India

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Dear Editor,

We read with great interest the study by Algin et al.[1], evaluating the prognostic utility of combined C-reactive protein (CRP) and albumin indices in acute pancreatitis. The authors provide prospective data suggesting that CRP to albumin ratio (CAR), Glasgow Prognostic score (GPS), and modified GPS (mGPS) are independent predictors of prolonged hospitalization. This is a timely and clinically relevant inquiry, especially in emergency settings where early risk stratification tools are needed. However, some methodological considerations warrant further discussion.

First, while the definition of prolonged stay as more than 7 days is consistent with prior work, the median duration in the prolonged group was 19 days. This discrepancy suggests that the chosen cut-off may not have captured the more clinically severe population. A higher threshold might have provided a better correlation with significant complications such as necrosis or multiorgan dysfunction. Additionally, the decision to dichotomize hospital stay could have limited the discriminatory performance of the indices. Modeling length of stay as a continuous outcome may have better captured the incremental prognostic value.

Second, although the area under the curve (AUC) for CAR was the highest among the indices, its value of 0.677 suggests limited predictive power in isolation. The AUCs for GPS and mGPS were similarly modest, and the statistical superiority of CAR over mGPS was not established. These findings imply that, although statistically significant, the clinical performance of these indices may not suffice for standalone use in triage or disposition planning.

Moreover, the study did not report whether albumin or CRP levels were influenced by therapeutic interventions such as fluid resuscitation, nutrition support, or early antibiotics. These factors can alter biomarker levels independently of disease severity and

Address for Correspondence: R. Sah, Dr. D. Y. Patil Medical College Hospital and Research Centre, Dr. D. Y. Patil Vidyapeeth (Deemed to be University), Maharashtra, India
E-mail: ranjanasah384@gmail.com **ORCID ID:** orcid.org/0009-0009-8332-6391

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potentially confound risk scores[2]. The absence of data on albumin infusion or parenteral nutrition during early hospitalization introduces uncertainty about the stability and timing of these markers.

Another concern is the lack of stratification by etiology of pancreatitis. Disease progression and inflammatory burden often vary between gallstone-induced, alcoholic, or idiopathic pancreatitis, which may influence CRP and albumin kinetics[3]. Without subgroup analysis, it is unclear whether these scores perform consistently across etiological profiles.

Finally, imaging-based severity markers such as Balthazar grade or computed tomography severity index were not included, limiting comparison with established tools. While CRP and albumin indices offer low-cost accessibility, their optimal utility may lie in complementing, not replacing, radiological assessment and clinical scores, like APACHE II[4].

In summary, while this study contributes useful preliminary evidence, the modest diagnostic accuracy, unmeasured confounders, and limited stratification suggest that CRP and albumin indices should be used cautiously and as part of a broader assessment framework. Further multicenter studies integrating biochemical, imaging, and etiological data are needed to define their clinical role.

Footnotes

Author Contributions

Concept: R.M., Design: R.M., Data Collection and/or Processing: R.S., Analysis or Interpretation: R.S., Literature Search: R.M., R.S., Writing: R.M., R.S.

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