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Response to the Letter to the Editor Regarding Our Research Article 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 Uzamış Hastanede Kalış Süresini Öngörmede Kombine C-reaktif Protein ve Albümin İndekslerinin Rolü: Prospektif Gözlemsel Bir Çalışma" Başlıklı Araştırma Makalemize Gelen Editöre Mektuba Yanıt

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Keywords: Acute pancreatitis, C-reactive protein/albumin ratio (CAR), prolonged hospital stay
Anahtar kelimeler: Akut pankreatit, C-reaktif protein/albümin oranı (CAR), uzamış hastanede kalış süresi

Dear Editor,

We sincerely thank the authors for their interest in our article, "The Role of Combined C-Reactive Protein and Albumin Indices in Predicting Prolonged Hospital Stay in Acute Pancreatitis: A Prospective Observational Study", and for their constructive comments[1].

Our choice of the >7- day threshold for the definition of prolonged hospital stay was based on previous literature identifying this cut-off as clinically meaningful in predicting complication risk and increased healthcare utilization in acute pancreatitis[2-4]. Importantly, our institution is one of the largest gastroenterology referral centers in the region, and a substantial proportion of complicated cases present directly to our emergency department from outpatient settings. This referral pattern naturally leads to a skewed length-of-stay (LOS) distribution, as illustrated in Figure 1, with a marked clustering of patients requiring prolonged hospitalization. Thus, the greater than seven-day threshold allowed comparability with existing studies, capturing a broader at-risk population-not solely the most severe cases with necrosis or multi-organ failure.

We agree that modeling LOS as a continuous variable could provide additional insights. However, our primary objective was to evaluate the discriminatory performance of inflammation-based indices for a binary outcome,

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which we believe to be more relevant for early triage and disposition decisions in the emergency department.

With respect to the reported area under the curve values, we acknowledge that the predictive performance of C-reactive protein to albumin ratio (CAR), Glasgow Prognostic score (GPS), and modified Glasgow Prognostic score (mGPS) is modest in isolation[5]. Nonetheless, all three indices remained statistically significant independent predictors in multivariate analysis. In line with prior evidence, we emphasize that these indices are best used as adjuncts rather than standalone tools, complementing comprehensive clinical evaluation. Their simplicity, rapid availability, and low cost make them especially valuable in high-volume emergency departments and resource-limited healthcare environments.

Concerning potential confounding from therapeutic interventions, we clarify that CRP and albumin levels were obtained at the time of presentation to the emergency department, before initiation of targeted treatments such as albumin infusion, nutritional support, or antibiotics. This approach minimized the likelihood of treatment-related bias in biomarker measurements.

Although etiology-specific subgroup analysis was not performed due to limited sample sizes within certain categories, we agree that inflammatory responses may differ between gallstone-induced, alcoholic, and idiopathic pancreatitis. This is an important consideration for future multicenter studies with larger and more balanced cohorts.

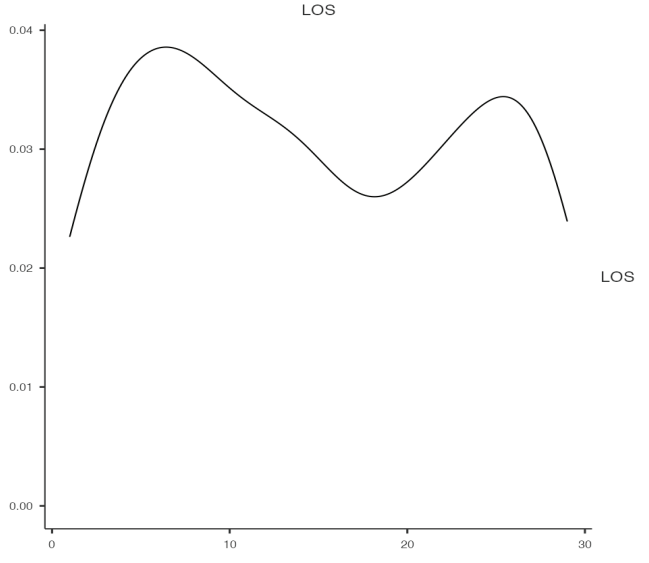

Figure 1. Distribution of length of stay (LOS) among pancreatitis patients

Similarly, advanced imaging-based severity scores such as the Balthazar grade or computed tomography severity index were not included in our study. This was a deliberate decision, as our primary aim was to evaluate the prognostic value of easily accessible biochemical indices-particularly relevant in emergency settings where advanced imaging may be delayed. We agree that integrating biochemical scores with imaging findings and clinical scoring systems such as Acute Physiology and Chronic Health Evaluation II may enhance prognostic accuracy, and this represents a valuable direction for future research.

In conclusion, our findings support CAR, GPS, and mGPS as independent predictors of prolonged hospital stay in patients with acute pancreatitis. These indices, especially in referral centers with a high proportion of complicated cases, may serve as practical tools for early risk stratification. We appreciate the opportunity to clarify these points and agree that further multicenter studies incorporating continuous LOS modeling, etiological stratification, and multimodal prognostic approaches are warranted.

Footnotes

Author Contributions

Surgical and Medical Practices: A.A., S.O., K.Y., M.A.A., Concept: A.A., A.O., Design: A.A., A.O., K.Y., M.A.A., Data Collection and/or Processing: A.A., S.O., M.A.A., Analysis or Interpretation: A.A., S.O., Literature Search: A.A., S.O., A.O., M.A.A., Writing: A.A., A.O., K.Y.

Conflict of Interest: The authors have no conflict of interest to declare.

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