

REVIEWER'S REPORT

Manuscript No.: IJAR-53041

Date: 28/07/2025

Title: "Prognostic Value of Platelet Indices in Sepsis: A Retrospective Observational Study"

Recommendation:

- ✓ Accept as it is
- Accept after minor revision.....
- Accept after major revision
- Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		✓		
Techn. Quality		✓		
Clarity		✓		
Significance	✓			

Reviewer Name: Dr. S. K. Nath

Date: 28/07/2025

Reviewer's Comment for Publication:

The study concludes that early changes in platelet indices—specifically, lower platelet counts along with higher MPV and PDW on ICU admission—are significantly associated with increased mortality and the need for mechanical ventilation in septic patients. Routine assessment of these parameters could facilitate early risk stratification, enabling timely and targeted interventions to improve outcomes.

Reviewer's Comment / Report

Strengths

- Clinical Relevance:** The study investigates readily accessible, cost-effective hematological parameters that can be easily integrated into routine ICU assessment for early risk stratification.
- Clear Findings:** The study demonstrated statistically significant associations between early platelet indices and adverse outcomes, emphasizing the prognostic potential of these biomarkers.
- Consistency with Literature:** The results are supported by prior research, reinforcing the validity of using platelet indices as prognostic markers in sepsis.
- Methodological Clarity:** The study has well-defined inclusion/exclusion criteria, and data collection was systematic across days 1-3, providing a temporal perspective on marker variations.

Weaknesses

- Retrospective Design:** Being retrospective limits control over confounding factors and precludes establishing causality.
- Sample Size:** With 114 patients, the sample size is moderate; larger, multicenter studies are needed to generalize the findings.
- Limited Multivariate Analysis:** The study primarily reports univariate associations; comprehensive multivariate analysis adjusting for confounders (e.g., age, comorbidities, severity scores) is lacking.
- Diminished Predictive Power Over Time:** The associations weaken after day 1, suggesting these markers are most useful early but less informative later, potentially limiting their ongoing utility.
- Lack of External Validation:** The findings are from a single center and need external validation across diverse populations.