

# *The Utility of Platelet-Related Parameters for Assessing COVID-19 Severity and Prognosis*

*COVID-19 Şiddetini ve Prognozunu Değerlendirmede Trombosit İle  
İlgili Parametrelerin Faydası*

**Mustafa Can ŞENOYMAK<sup>1</sup>, Murat YENİÇERİ<sup>2</sup>**

<sup>1-</sup> Department of Endocrinology and Metabolism, University of Health Sciences, Sultan Abdulhamid Han Training and Research Hospital, Istanbul, Turkey

<sup>2-</sup> Department of Rheumatology, University of Health Sciences, Bakırkoy Dr. Sadi Konuk Training and Research Hospital, Istanbul, Turkey

Yazışma Adresi / Correspondence

**Mustafa Can ŞENOYMAK**

[senoymak@gmail.com](mailto:senoymak@gmail.com)

*University of Health Sciences, Sultan Abdülhamid Han Training and Research Hospital,  
Selimiye, Tıbbiye Street postal code: 34668 Uskudar/Istanbul/Turkey*

Geliş Tarihi / Received : 13.12.2023 Kabul Tarihi / Accepted: 14.12.2023

 Mustafa Can ŞENOYMAK <https://orcid.org/0000-0002-1977-5127> [senoymak@gmail.com](mailto:senoymak@gmail.com)

 Murat YENİÇERİ <https://orcid.org/0000-0003-3046-5784> [4256.gatf@gmail.com](mailto:4256.gatf@gmail.com)

*Hippocrates Medical Journal / Hippocrates Med J 2023, 3(3), 39-41 DOI: 10.58961/hmj.1404332*



**Dear Editor;**

We have read with great interest the research article by Ergenç et al, titled 'Relationship Of Platelet Subgroups With Prognosis And Mortality İn Patients With Mild, Severe And Critical COVID-19' published in the second issue of your journal in 2023 (1). We would like to express our appreciation to the authors and the editorial board for this insightful and highly informative article. We intend to cover particular aspects in this letter, which we believe will contribute to a more comprehensive discussion of the article.

It is worth highlighting that in a pandemic with a simple and rapidly deployable intervention requirement, a basic hemogram test, as also suggested by Ergenç and colleagues, can be a highly beneficial and effective method for determining disease severity and prognosis. Such a straightforward diagnostic tool can play a crucial role in the early identification and intervention of severe cases, potentially improving patient outcomes. Similar to the current study, a meta-analysis that encompassed 17 studies and included 4549 patients highlighted the elevation of mean platelet volume (MPV) in both the mortal group and the poor outcome group (2). MPV is considered not only a marker of platelet activation but is also associated with platelet aggregation and the release of thromboxane A2. One of the significant points that we would like to underscore is the absence of a precise definition for 'severe COVID-19' within the study. Notably, the study lacks both clinical and laboratory criteria to distinctly define severe cases of COVID-19, making it challenging to thoroughly examine the effects on platelets and related markers on prognosis.

Another outcome inferred from the study is the lower platelet count in the group exhibiting a fatal course. This phenomenon can be elucidated by the direct involvement of the coronavirus in bone marrow, leading to platelet consumption and aggregation in response to inflammation (3,4). In a meta-analysis encompassing 19 studies, it has been demonstrated that the likelihood of

thrombocytopenia is higher in severe cases, highlighting the possibility of drawing the inference that thrombocytopenic COVID-19 patients may experience a heightened risk of adverse outcomes (4). We think that it would be appropriate to mention that despite the study by Ergenç and colleagues reinforcing this outcome, the potential for achieving more robust results existed by incorporating clearer exclusion criteria and the exclusion of concurrent factors, such as the usage of NSAIDs and antibiotics, which are known to precipitate thrombocytopenia.

In conclusion platelet count and platelet-related parameters can be effectively utilized for the assessment of COVID-19 severity and prognosis. We would like to express our gratitude to the authors for this study, which includes patients from two separate centers, providing a broad perspective on this subject.

**Acknowledgments**

The authors declared that this study recieved no financial support.

No conflict of interest was declared by the authors.

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