Journal of Inflammation Research

Dovepress
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LETTER

A Prospective Comparative Study on the Clinical Diagnostic Performance of Blood Inflammatory Markers in Acute Appendicitis [Letter]

Rıfat Peksöz[1,*], Enes Ağırman[2,*], Sabri Selçuk Atamanalp[1,*]

[1]Department of General Surgery, Atatürk University Research Hospital, Erzurum, Turkey; [2]Department of General Surgery, Erzurum City Hospital, Erzurum, Turkey

*These authors contributed equally to this work

Correspondence: Rıfat Peksöz, Department of General Surgery, Atatürk University Faculty of Medicine, Erzurum, Turkey, Tel +90 04423447956, Email rifat-peksoz@hotmail.com

Dear editor

We have read with great interest the valuable article written by Yuan et al, titled "A Prospective Comparative Study on the Clinical Diagnostic Performance of Blood Inflammatory Markers in Acute Appendicitis". Authors aimed to investigate the diagnostic utility of commonly employed blood inflammatory markers for acute appendicitis in this study.[1] The use of laboratory values in diagnosing acute appendicitis is crucial. Being able to diagnose the condition and make a differential diagnosis using only clinical findings and laboratory results—without the need for radiological imaging offers a significant advantage. This is particularly important for primary care physicians and those working in rural areas, where access to imaging can be limited. Imaging methods can sometimes be difficult to access, time-consuming, and costly. A simple, inexpensive, easily accessible, and rapid diagnostic tool, such as a hemogram, is especially valuable in this context. As such, this study on laboratory values is both timely and important, and will certainly contribute to the literature. Additionally, the exploration of a new diagnostic marker, such as neutrophil gelatinase-associated lipocalin, adds further depth to the study. However, we believe there are several points that warrant further consideration. We feel that revisiting certain aspects of the study will help strengthen its conclusions and benefit future research.

First, the hemogram parameter includes 11 sub-parameters, one of the most significant being mean platelet volume (MPV). In recent years, the high diagnostic value of MPV has been highlighted in studies related to inflammatory diseases. The study by Albayrak et al, which emphasizes the role of MPV in diagnosing acute appendicitis, has been widely cited.[2] In our own study, we found MPV to be an important marker not only for diagnosing acute appendicitis but also for indicating the degree of complications.[3] Therefore, we recommend that the authors reconsider the MPV value, as it may be more significant than other markers in the diagnosis and assessment of acute appendicitis.

Second, while the study examined urea and creatinine values from biochemical parameters, it was noted that markers such as lactate dehydrogenase (LDH) and bilirubin are more significant in inflammatory conditions.[4] Specifically, bilirubin has been shown to be an important marker in diagnosing appendicitis and identifying perforation.[5] We suggest that the authors revisit the role of LDH, with particular attention to bilirubin. If these markers were indeed studied, it would be valuable to know the results.

Third, in addition to diagnosing appendicitis, it is critical to distinguish between uncomplicated and complicated appendicitis. Although the number of complicated cases is provided in the study, the diagnostic effectiveness of laboratory values in determining the complications is not discussed. Furthermore, the study does not mention the number of negative appendectomy cases, which could have been included in the abdominal pain group. We believe it would be more informative to categorize the patients into distinct groups: a control group (comprising healthy controls or patients

Received: 17 January 2025
Accepted: 6 February 2025
Published: 11 February 2025

with negative appendectomy), an uncomplicated appendicitis group, and a complicated appendicitis group. This would allow for a more detailed analysis of diagnostic markers in relation to the severity of the disease.

Finally, in order to better understand the demographic and clinical characteristics of the patient groups, Table I should include important parameters such as co-morbid diseases, length of hospital stay and postoperative complications.

We congratulate the authors for their successful study and await their reply to our comments.

Funding

There is no funding to report.

Disclosure

The authors declare no conflicts of interest in this communication.

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https://doi.org/10.2147/JIR.S518021