



Regarding “Which simple laboratory test is better to differentiate acute complicated and noncomplicated appendicitis?”

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Dear Editor,

I read with a great interest this valuable article by Zengin A. et al, titled “Which simple laboratory test is better to differentiate acute complicated and noncomplicated appendicitis” [1]. In this article, the authors explained the importance of basic laboratory parameters in the differentiation of complicated and uncomplicated appendicitis. These inexpensive, easily accessible, and simple laboratory parameters are very important, especially for physicians in rural areas or those who have difficulty in accessing advanced imaging methods which are difficult to access, time-consuming and costly. In this regard, this study is very important in terms of contributing to the literature. However, some issues should be raised my point of view. Firstly, since this study was designed on simple laboratory parameters, patients with diseases affecting blood values (hematological diseases, pregnant patients, more than one chronic diseases, allergic diseases, used of various drugs, and inflammatory diseases) should have been excluded from the paper [2, 3]. Remove of concomitant liver or gall bladder diseases is not sufficient for exclusion criteria. Therefore, inclusion and exclusion criteria should be well defined.

Secondly, why was the pathological diagnosis of suppurative appendicitis added to the group of complicated appendicitis? To the best my knowledge, these patients should

be in the uncomplicated appendicitis patient group or it is necessary to add a reference that accepts this patient group as complicated acute appendicitis (AA). Again, lymphoid hyperplasia and obliterated appendicitis should be in the negative appendicitis group [3-5]. Therefore, uncomplicated and complicated appendicitis groups should be well defined.

Thirdly, perhaps the most important blood value in differentiating the complicated appendicitis group in acute appendicitis is neutrophil-to-lymphocyte ratio (NLR). Neutrophilia and lymphocytopenia are cellular response elements in inflammatory diseases. The increase in the difference between neutrophil and lymphocyte shows the severity of the inflammatory response [2]. NLR has been demonstrated to be superior to other traditional infection markers, including C-reactive protein, white blood cell (WBC), and neutrophil counts for determining AA severity [6-8]. In your study, it is expected that the NLR value will be higher in the complicated appendicitis group because of the high WBC and low lymphocyte levels. The diagnostic value Area under the Curve (AUC) of the NLR value may produce better results and may be the most relevant marker for the study. Re-evaluation of this situation may lead to new better results.

Additionally, another marker I will comment on is mean platelet volume (MPV). I don't suggest the use of MPV in the determination of the severity of AA as it provides contradictory results. In some studies, this value is higher in

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the uncomplicated patient group [2], while in some studies it is higher in the complicated appendicitis [9]. Although there was no statistical significance in your study, MPV was found to be higher in the non-complicated patient group [1].

Finally, to better understand the study groups features and further comment on clinical information of the patients groups, Table 1 should be include postoperative complications according to the Clavien-Dindo classification [10].

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Author Response

Dear Editor,

We really appreciate the Letter to the Editor by Author, which added valuable information and discussion to our article titled “Which simple laboratory test is better to differentiate acute complicated and non-complicated appendicitis?” [1]. First of all, there was no patient associated with hematological and inflammatory diseases or pregnancy in our study. The American Society of Anesthesiology score information absent in this study, and it could be placed the future studies. Secondly, the suppurative appendicitis pathological results accepted as complicated appendicitis in some studies [2–4], so we accepted suppurative appendicitis as complicated group. Thirdly, thank you for your worthy consideration about our study, but we did not want to re-prove neutrophil lymphocyte ratio and complicated appendicitis relevant. There are so many studies about this subject [5,6]. Fourthly, we did not suggest the mean platelet volume in our study to determine the diagnosis of complicated appendicitis, as in your opinion. Finally, we have no data about postoperative complications yet, may be it would be future study subject for us.

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