Can First-trimester AST to Platelet Ratio Index Scores Predict HELLP Syndrome?

Sir,

We congratulate Tolunay *et al.* for such an informative article.¹ We totally agree with the conclusion that by predicting HELLP syndrome in the early period, proper management and necessary precautions can be instituted for better outcomes. In this case, authors had used aspartate aminotransferase (AST) to platelet ratio index (APRI) score as the determinant predictive parameter, which was also performed by Şaşmaz *et al.*² However, there are few issues that, if addressed, can enhance the quality of the study. Firstly, the study could have a stronger methodology. Instead of a retrospective observational study design, higher level of evidence methods such as a randomised control trial could yield a better output. Then, the results will be more conclusive, as well. We are puzzled as in the methodology section, it was mentioned that this was a cross-sectional study, but further elaboration in the preceding section showed it was actually a matched case-control study.

Secondly, we hope that the article could be more thoroughly written. We noted some errors in the paper, such as in the abstract's results section, mentioning there were 116 women with HELLP syndrome, which is actually the total number of sample population rather than those with HELLP syndrome.

Thirdly, in the results section, the authors mentioned that there were no differences in age and body mass index (BMI), which was expected as those two criteria were matched between the two groups. In the Tables shown, we feel it is adequate for the authors to choose either to use mean or median. If a variable is not normally distributed, the mean value is not an accurate representation of the central tendency, anyway. In another note, in Table II, it was not made clear what statistical test was used to obtain the significant p-value. We also would suggest that the authors proceed to multivariate analysis. It would be interesting to see if multicollinearity is present between these variables.

Fourthly, in our opinion, it is about the choice of the control group. The criteria of the control group should be patients with hypertension or associated conditions, but without HELLP syndrome or patients with liver diseases or bleeding disorders. Cases will be patients with HELLP syndrome. Then, it will be more logical to compare the results since both cases and controls can present with similar clinical features. Moreover, the p-value will be more accurately significant. APRI is used to identify the risk of severe malaria caused by *Plasmodium vivax* as well.³

CONFLICT OF INTEREST:

The authors declared no conflict of interest.

AUTHORS' CONTRIBUTION:

MZS: Wrote original draft, reviewed and edited the manuscript.

FH: Reviewed and edited the manuscript, searched literature review.

SSSAR: Reviewed and edited the manuscript.

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AUTHOR'S REPLY:

Sir,

Thank you for your positive contribution and criticism of our article. Predicting the obstetric complications in the early period is beneficial for taking necessary precautions and proper management. In the literature, there are various studies on whether some biochemical markers examined in the first trimester can be used to identify later obstetric complications.¹ APRI score is a marker that can be used cost-effectively.² Its usage in obstetric practice is relatively new and open to development. Since our article is the first in literature, we designed it as a retrospective observational study. As you

suggested, randomised control trials, that will be conducted in the future, could offer better results. You rightly pointed out that there were 116 women in our study. Our study group (number of cases with HELLP syndrome) was of 42. It is correctly written in both Tables and in the Methodology section. It was overlooked in abstract results. Pregnant women without comorbid conditions were enrolled as the control group in our study. By increasing the control group's heterogeneity, and making advanced analyses involving a large number of patient populations will contribute to the literature. Many articles with these properties will contribute to the enlightenment of this issue. The APRI score is the new and emerging parameter to improve diagnosis and prediction of internal medicine conditions, infectious parasitic diseases, and pregnancy morbidities. Our study can be considered as a pilot study because it is the first in the literature that investigates the association between first-trimester APRI score and the development of HELLP syndrome.

Our preliminary report in this article is open to improvement and will pave the way for new studies.

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