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Letter to the Editor

Platelet indices should not be considered a stand-alone test for monitoring the disease progression

Dear Editors,

We read with great interest the article by Öztürk, et al[1] entitled "Could platelet indices be new biomarkers for inflammatory bowel diseases?", which was published in the previous issue of European Review for Medical and Pharmacological Sciences.

These authors[1] aimed to determine whether platelet indices; mean platelet volume (MPV), platelet distribution width (PDW) and platelet-crit (PCT) would be useful, cheap, non-invasive biomarkers for following up and determining severity of inflammatory bowel diseases (IBD) with comparing other disease activity indexes and serologic markers. They mentioned a statistically significant change in all platelet indices during diseases follow-up, and claimed that platelet indices could be added to other inflammatory markers especially to monitor disease from active phase to remission phase due to noteworthy changes in indices during the course of IBD. Although the current study is well done and the authors provided an excellent data about platelet indices as biomarkers in IBD, we have some concerns about the article.

The authors mentioned that while MPV levels were decreasing with remission in UC (Ulcerative Colitis), in contrast they were increasing with remission in CD (Crohn's Disease). Although they explained MPV decrease in subjects with IBD with thrombopoiesis disturbance often observed in the early stages of systemic inflammatory processes, Webberley et al. mentioned that MPV levels were expected to be increased with the remission of IBD due to decrement in consuming or sequestrating large activated platelets in the intestinal vasculature[2]. The explanation of decrement of MPV in remission phase compared with active phase of UC could have been given to determine the precise etiology.

Although they mentioned that none of the platelet indices was showing disease activity in CD group, paradoxically they suggested both of PDW and PCT could be used in IBD to monitor disease progression from active phase to remission phase. We thought that this comment was derived from the insignificant correlation between platelet indices and activity indexes in CD, but it is important to emphasize that ROC analyses of markers to differentiate active phase of UC and CD from control group show the area under curve (AUC) and sensitivity values of PDW and PCT are higher in CD than UC.

The authors mentioned that CRP, ESR, increased number of blood platelets and leukocytes could not adequately reflect disease activity due to low sensitivity and specificity for intestinal inflammation. Compared with CRP, ESR and leukocytes; platelet indices (MPV, PDW, PCT) have significantly lower values of AUC, sensitivity and specificity to differentiate active phase of UC and CD from control group[2-4].

In conclusion, we agree with the authors that, for follow-up in comparison with other modalities in IBD; PDW and PCT are non-invasive and cost-effective biomarkers[3-6]. However, the platelet indices should not be considered a stand-alone test for monitoring the disease progression from active phase to remission phase due to not only non-specificity with other diseases but also the results (low AUC, sensitivity and specificity) achieved in the study.

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