


Clinical Significance of Mean Platelet Volume in Predicting the Therapeutic Effect of Splanchnic Neurolysis [Letter]

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Dear editor

We recently with great interest read the report from Dai et al.¹ Their study aimed to retrospectively analyze the predictive value of mean platelet volume (MPV) combined with the neutrophil–lymphocyte ratio (NLR) for the efficacy of splanchnic neurolysis. The results revealed that MPV has statistical significance for predicting splanchnic neurolysis efficacy in digestive system tumors. MPV and NLR are independent predictors in predicting splanchnic neurolysis efficacy in pancreatic cancer. The authors concluded that the combined detection of MPV and NLR has important clinical predictive value for the postoperative efficacy of splanchnic neurolysis in pancreatic cancer. Although the result was attractive, there are some points that should be noticed.

As a crucial biomarker of platelet size and platelet activation, MPV also demonstrated the association with many disorders, including tumors, cardiovascular diseases, infectious diseases and immune diseases.^{2–4} In these disorders, MPV levels associated with the prognosis or disease serious stage. On the other hand, these underlying disorders (including TNM stages of tumor, cardiovascular diseases, metabolic syndrome, renal diseases, diabetes and infectious diseases, etc.) might also increase or decrease the MPV levels. Moreover, the baseline characteristics, such as age and body mass index, also affected MPV levels. All this information of enrolled subjects could benefit to assess the clinical value of MPV.

Second, some drugs and treatment also affected MPV levels, including anti-platelet drugs, anti-tumor drugs, chemotherapy-associated myelosuppression, cancer-associated anemia, erythropoietin and transfusion.^{5,6} Many cancer patients might receive these drugs or treatment. The influences of drugs, surgery and transfusion should be considered or provided. Furthermore, some methodological factors could significantly decrease MPV levels, including anticoagulant tubes for blood sample collection, and the time delay between sampling and analysis.⁷

Totally, we think that MPV as a prognostic marker for therapeutic effect of splanchnic neurolysis remains debatable. It would be helpful to estimate the predictive role of MPV if the authors provided more details of the study about this above information.

Disclosure

The author reports no conflicts of interest in this communication.

References

1. Dai J, Han Y, Fang T, Shao H, Teng L, Zou H. Clinical significance of mean platelet volume combined with neutrophil–lymphocyte ratio in predicting the therapeutic effect of splanchnic neurolysis. *J Inflamm Res.* 2023;16:5027–5037. doi:10.2147/JIR.S428641
2. Leader A, Pereg D, Lishner M. Are platelet volume indices of clinical use? A multidisciplinary review. *Ann Med.* 2012;44(8):805–816. doi:10.3109/07853890.2011.653391

3. Detopoulou P, Panoutsopoulos GI, Mantoglou M, et al. Relation of mean platelet volume (MPV) with cancer: a systematic review with a focus on disease outcome on twelve types of cancer. *Curr Oncol*. 2023;30(3):3391–3420. doi:10.3390/curroncol30030258
4. Haidegger M, Kneihsl M, Niederkorn K, et al. Mean platelet volume does not predict restenosis after carotid artery stenting in whites. *Stroke*. 2020;51(3):986–989. doi:10.1161/STROKEAHA.119.028180
5. Arachchillage DRJ, Laffan M. Can mean platelet volume be used as a predictor of vascular disease? Problems and pitfalls. *Semin Thromb Hemost*. 2017;43(6):599–608. doi:10.1055/s-0037-1603360
6. Lian L, Xia YY, Zhou C, et al. Mean platelet volume predicts chemotherapy response and prognosis in patients with unresectable gastric cancer. *Oncol Lett*. 2015;10(6):3419–3424. doi:10.3892/ol.2015.3784
7. Dastjerdi MS, Emami T, Najafian A, et al. Mean platelet volume measurement, EDTA or citrate? *Hematology*. 2006;11(5):317–319. doi:10.1080/10245330600954163

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