

## Comment on “Mean platelet volume as a simple marker of repeated coronary artery intervention after off-pump technique (OPCAB) procedures – initial report”



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Dear Editor,

I have read with great interest the recently published article by Urbanowicz *et al.* [1].

This study aimed to explore the possible dependence on mean platelet volume (MPV) and postoperative percutaneous coronary interventions (PCI) risk in patients with complex coronary artery disease undergoing coronary artery bypass grafting in off-pump technique (OPCAB). The authors reported that MPV can be regarded as a simple marker of PCI risk following OPCAB procedures. The preoperative MPV indicates the individual tendency for worse prognosis more than procedure dependence.

However, there are major limitations in MPV measurement. In this study, MPV measurement technique is not described. The mean platelet volume is dependent on a number of variables, including time of analysis after venepuncture, method of analysis, anticoagulant used and specimen storage temperature. Although EDTA is traditionally used and recommended for samples destined for blood counting, it is well known that platelets collected into EDTA anticoagulants undergo time-dependent platelet swelling

and activation [2, 3]. The retrospective nature of the study leads to a significant problem because the MPV results could not be standardized. This study has no exclusion criteria. However, there are many diseases and medications affecting MPV levels [4] Therefore, MPV-based analysis results can be misleading.

### Disclosure

The author reports no conflict of interest.

### References

1. Urbanowicz TK, Michalak M, Mikolajewska W, Rodzki M, Perek B, Olasińska-Wiśniewska A, Bociański M, Jemielity M. Mean platelet volume as a simple marker of repeated coronary artery intervention after off-pump technique (OPCAB) procedures – initial report. *Kardiocir Torakochir Pol* 2021; 18: 231-5.
2. Jackson SR, Carter JM. Platelet volume: laboratory measurement and clinical application. *Blood Rev* 1993; 7: 104-13.
3. Beyan C, Beyan E. Were the measurements standardized sufficiently in published studies about mean platelet volume? *Blood Coagul Fibrinolysis* 2017; 28: 234-6.
4. Gasparyan AY, Ayvazyan L, Mikhailidis DP, Kitas GD. Mean platelet volume: a link between thrombosis and inflammation? *Curr Pharm Des* 2011; 17: 47-58.

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