Atherosclerosis 280 (2019) 194

Contents lists available at ScienceDirect

Atherosclerosis

journal homepage: www.elsevier.com/locate/atherosclerosis

Correspondence

Comment on "Mean platelet volume and long-term cardiovascular outcomes in patients with stable coronary artery disease"

ARTICLE INFO

Keywords:
Mean platelet volume
Coronary artery disease

To the Editor,

I have read with great interest the recently published article by Wada et al. [1]. This study findings indicated that a low mean platelet (MPV) was associated with worse clinical outcomes among stable coronary artery disease patients. However, there are major limitations about MPV levels in this study:

1) MPV measurement technique is not written. 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. Pre-analytical variables, such as the anticoagulant used, and the time between blood collection and measurement, are known to significantly affect MPV measurements. Although EDTA is traditionally used and recommended for samples used for blood counting, it is well known that platelets collected into EDTA anticoagulants undergo time-dependent platelet swelling and activation [2,3]. The observational nature of the study leads to a significant problem because the MPV results could not be standardized.
2) This study is retrospective and its duration is 15 years. However, recent studies have shown seasonal changes in MPV levels [4]. On the other hand, different devices and technologies used in MPV measurements can produce deviations [5].

Conflict of interest

The author declared he does not have anything to disclose regarding conflict of interest with respect to this manuscript.

References

[1] H. Wada, T. Dohi, K. Miyauchi, et al., Mean platelet volume and long-term cardiovascular outcomes in patients with stable coronary artery disease, Atherosclerosis 277 (2018 Oct) 108–112.
[2] S.R. Jackson, J.M. Carter, Platelet volume: laboratory measurement and clinical application, Blood Rev. 7 (2) (1993) 104–113.
[3] P. Harrison, A.H. Goodall, Studies on mean platelet volume (MPV) – new editorial policy, Platelets 27 (7) (2016) 605–606.
[4] V.L. Crawford, S.E. McNerlan, R.W. Stout, Seasonal changes in platelets, fibrinogen and factor VII in elderly people, Age Ageing 32 (2003) 661–665.
[5] C. Beyan, E. Beyan, Were the measurements standardized sufficiently in published studies about mean platelet volume? Blood Coagul. Fibrinolysis 28 (2017) 234–236.

Erkan Coban
Akdeniz University Faculty of Medicine, Department of Internal Medicine, Antalya, Turkey
E-mail addresses: drecco68@gmail.com, ecoban@akdeniz.edu.tr.

DOI of original article: https://doi.org/10.1016/j.atherosclerosis.2018.08.048

https://doi.org/10.1016/j.atherosclerosis.2018.10.020
Received 15 October 2018; Accepted 18 October 2018
Available online 19 October 2018
0021-9150/ © 2018 Elsevier B.V. All rights reserved.