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### LETTER TO THE EDITOR

# Mean platelet volume and glomerular filtration rate: Two important risk determinants in coronary artery disease

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#### To the Editor,

We read with a great interest article "Mean platelet volume(MPV) is independently associated with renal dysfunction in stable coronary artery disease" written by Ucar and coworkers [1]. They aimed to evaluate the association between estimated glomerular filtration rate(GFR) and MPV in patients with stable coronary artery disease showing normal to mildly impaired renal function. They concluded that MPV is independently associated with GFR as well as C-reactive protein, platelet count and diabetes. The study is successful in design and documentation.

Mean platelet volume is routine laboratory marker to be related the platelet function [2, 3]. MPV is also considered to play a central role in coronary heart disease pathophysiology based on endothelial dysfunction and inflammation [4–6]. In this point of view, platelet paremeters can be affected by coronary risk factors including age, ethnicity, obesity, smoking, diabetes mellitus, hypertension, hyperlipidemia [3]. Furthermore, MPV is linked with peripheral artery disease and stroke, all of which are related to atherosclerosis on the basis of inflammation [2, 7]. It can also be affected by rheumatoid arthritis [8, 9], osteoarthritis [10], Behçet's disease [11], malignancy [12] and medications such as anticoagulant therapy, statins. So, if the authors had mentioned these factors, it might be useful.

Finally, they applied Cockcroft-Gault equation for GFR. However, Cockcroft–Gault equation may measure lower GFR in younger age groups comparison with the the modification of diet in renal disease (MDRD) formula, but it can measure higher GFR in older individuals compare to MDRD formula. Although the Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) recently published an equation for GFR using the same factors (serum creatinine level, age, sex, and race) as the MDRD Formula, the CKD-EPI equation more accurately categorized individuals with respect to long-term clinical risk compared with the MDRD formula [13].

In conclusion, MPV may be affected by many factors, the routine clinical usage of these parameters may not be reasonable yet [14]. MPV itself alone without other overt inflammatory markers may not give information to clinicians about the inflammatory condition of the patient. So, we think that it ought to be evaluated together with other inflammatory markers [15].

#### Keywords

Glomerular filtration rate, Mean platelet volume

#### History

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#### **Declaration of interest**

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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