

Clinical Marker of Platelet Hyperreactivity in Diabetes Mellitus (*Diabetes Metab J* 2013;37:423-8)

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We truly appreciate the interest and comments regarding our article, "Clinical marker of platelet hyperreactivity in diabetes mellitus," which was published in *Diabetes & Metabolism Journal* [1]. Our responses to the comments by Drs. Cengiz Beyan and Esin Beyan's are as follows:

We suggested that mean platelet volume (MPV), which is used to measure platelet size, is a potential marker of platelet hyperreactivity in diabetes. Although some uncertainty remain, previous studies have also shown that MPV is a potential predictive marker of platelet hyperreactivity in diabetes [2-5]. Furthermore, Shah et al. [6] reported a significant correlation between MPV and the degree of glycemic control only in diabetic patients. They suggested that the positive relationship between an increased glucose level and increased MPV is a unique phenomenon of diabetes. Recent data from our group supports this possibility. We found a contrasting relationship between MPV and fasting plasma glucose in the presence and absence of diabetes in a general Korean population [7]. Nevertheless, we think that further large prospective studies should be conducted to confirm the clinical utility of this marker and to clarify the association between MPV and platelet hyperactivity in diabetes.

We agree with you about the correct measurement of MPV. There is a need for careful measurements and interpretation. However, current various methods that are used to measure platelet function are mostly complex and are not easily applicable in real clinical practice. On the other hand, although there are controversies about the most exact methodology for mea-

suring MPV, it is easily accessible in the inpatient and outpatient settings at a relatively low cost. For this reason we believe that bolstering the strengths to make up for the weaknesses may provide an alternative route for better diagnosis, but further studies are still required.

Thank you for your interest in this article and for your thoughtful comments.

CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

REFERENCES

1. Kim JH, Bae HY, Kim SY. Clinical marker of platelet hyperactivity in diabetes mellitus. *Diabetes Metab J* 2013;37:423-8.
2. Unubol M, Ayhan M, Guney E. The relationship between mean platelet volume with microalbuminuria and glycemic control in patients with type II diabetes mellitus. *Platelets* 2012;23:475-80.
3. Tavil Y, Sen N, Yazici H, Turfan M, Hizal F, Cengel A, Abaci A. Coronary heart disease is associated with mean platelet volume in type 2 diabetic patients. *Platelets* 2010;21:368-72.
4. Park BJ, Shim JY, Lee HR, Jung DH, Lee JH, Lee YJ. The relationship of platelet count, mean platelet volume with metabolic syndrome according to the criteria of the American Association of Clinical Endocrinologists: a focus on gender differenc-

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- es. *Platelets* 2012;23:45-50.
5. Gasparyan AY, Ayvazyan L, Mikhailidis DP, Kitas GD. Mean platelet volume: a link between thrombosis and inflammation? *Curr Pharm Des* 2011;17:47-58.
 6. Shah B, Sha D, Xie D, Mohler ER 3rd, Berger JS. The relationship between diabetes, metabolic syndrome, and platelet activity as measured by mean platelet volume: the National Health and Nutrition Examination Survey, 1999-2004. *Diabetes Care* 2012;35:1074-8.
 7. Kim JH, Kang SB, Kang JI, Kim JW, Kim SY, Bae HY. The relationship between mean platelet volume and fasting plasma glucose differs with glucose tolerance status in a Korean general population: gender differences. *Platelets* 2013;24:469-73.