

## Mean platelet volume as a marker of branch retinal vein occlusion may be influenced by many factors

Dear Editor,

We read the article "Relation between platelet indices and branch retinal vein occlusion in hypertensive patients" written by Onder *et al.*,<sup>[1]</sup> with interest. They aimed in this well-designed study to find the relation between branch retinal vein occlusion (BRVO) and mean platelet volume (MPV) in hypertensive patients. They concluded that MPV was significantly higher in hypertensive BRVO patients and it's potentially use as a prognostic biomarker in patients with BRVO would be possible in the future. We congratulate the authors for their lightening study. We would like to inform an error which we think to be done by mistake and make some contributions about study.

BRVO is one of the most common retinal vascular occlusive disorders and is usually associated with vitreous hemorrhage and a variable amount of vision loss.<sup>[2,3]</sup> It has been suggested in the literature that arteriosclerosis and arteriovenous crossing of retinal branch vessels play important roles in development of BRVO.<sup>[2]</sup> MPV is a marker of platelet size and activation. Increased MPV reflects active and large platelets. MPV is one of the most widely used laboratory markers to be related the platelet function and based on inflammatory condition.<sup>[4]</sup>

In present study, the authors reported that exclusion criteria included history of diabetes, glaucoma, blood dyscrasias, renal failure, hepatic disorders, malignancy, and history of drug use (nonsteroid anti-inflammatory drugs, anticoagulant medications, and oral contraceptives). Patients with BRVO who had a history of vasculitis were also excluded. But in the literature, much more factors were reported which influence MPV level. Some of these factors are obesity, smoking and duration of it, metabolic syndrome, thyroid diseases, nasal polyposis, and bone mineral density. Especially the high-grade inflammatory diseases, such as active rheumatoid arthritis, familial Mediterranean fever, acute pancreatitis, Crohn's disease, and ankylosing spondylitis influence MPV level too.<sup>[4,5]</sup> In this study, the authors informed about number of smoking patients but did not mention about duration of smoking and difference between study groups. We think that if the authors gave information about these factors influencing MPV, the results of the present study may be different and stronger.

We also want to inform an error which we think to be done

by mistake. The authors reported in results that the platelet count was lower in the control group but the difference did not reach a statistically significant level. But inversely they reported in discussion part that the platelet count was insignificantly decreased in the BRVO group. We think that the second one was right and this was shown in Table 2.

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## References

1. Onder HI, Kilic AC, Kaya M, Bulur S, Onder E, Tunc M. Relation between platelet indices and branch retinal vein occlusion in hypertensive patients. *Indian J Ophthalmol* 2013;61:160-2.
2. Hayreh SS. Retinal vein occlusion. *Indian J Ophthalmol* 1994;42:109-32.
3. Saxena S, Jalali S, Verma L, Pathengay A. Management of vitreous haemorrhage. *Indian J Ophthalmol* 2003;51:189-96.
4. Gasparyan AY, Ayzvazyan L, Mikhailidis DP, Kitas GD. Mean platelet volume: A link between thrombosis and inflammation? *Curr Pharm Des* 2011;17:47-58.
5. Li XS, Zhang JR, Meng SY, Li Y, Wang RT. Mean platelet volume is negatively associated with bone mineral density in postmenopausal women. *J Bone Miner Metab* 2012;30:660-5.

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