Mean platelet volume measurement protocol should be standardized for diabetic retinopathy

Esra Ayhan Tuzcu · Secil Arica · Nilufer Ilhan ·
Mutlu Daghoglu · Mesut Coskun · Ozgur Ilhan ·
Ihsan Ustun

Received: 27 September 2013 / Accepted: 1 October 2013 / Published online: 15 October 2013
© Springer-Verlag Berlin Heidelberg 2013

Dear Editor:

In our manuscript, the sentence, “Mean platelet volume is a parameter indicating platelet activation and function,” was based on the literature [1–3]. The purpose of our study was to identify the risk for diabetic retinopathy (DR) using complete blood count, which is routinely used because it is a simple and inexpensive test.

E. A. Tuzcu (✉) · N. Ilhan · M. Daghoglu · M. Coskun · O. Ilhan
Department of Ophthalmology, Mustafa Kemal University Medical
Faculty, Hatay, Turkey
e-mail: drayhant@hotmail.com

N. Ilhan
e-mail: niluferilhan@gmail.com

M. Daghoglu
e-mail: mutluaysen@hotmail.com

M. Coskun
e-mail: drmesutcoskun@hotmail.com

O. Ilhan
e-mail: drozgur9@yahoo.com

S. Arica
Department of Family Medicine, Mustafa Kemal University Medical
Faculty, Hatay, Turkey
e-mail: secilgunher@hotmail.com

I. Ustun
Department of Endocrinology and Metabolism Unit, Mustafa Kemal
University Medical Faculty, Hatay, Turkey
e-mail: iustun@yahoo.com

As the authors mentioned, light transmission aggregometry (LTA) is the best test to indicate platelet function [4]. However, LTA is time-consuming and challenging, and it must be supervised by an expert that several analytic and para-analytic changes. In addition, LTA is only available at specialized laboratories [4]. Beyan et al. mentions that although it implicitly shows the hemostatic function of platelets, LTA isn't routinely used; it is also a very expensive test [5].

In our study, the blood samples were placed into dipotassium ethylenediaminetetraacetic acid (EDTA) tubes. The complete blood count was performed using an automated hematology analyzer (CELL-DYN 3700, Abbott Diagnostics, Abbott Park, IL, USA). All blood samples are evaluated within 60 min of the blood sampling.

References

1. Bancroft AJ, Abel EW, McLaren M, Belch JJF (2000) Mean platelet volume is useful parameter: A reproducible routine method using a modified coulter trombocytometer. *Platelets* 11(7):379–387
2. Kim SW, Ryu GH, Lee I, Koh JJ, Min BG, Lee HK (1995) Adhered platelet morphology in diabetes mellitus. *Diabetes Metab* 21(1):50–53
3. Vinik AM, Macagni A (2001) Platelet dysfunction in type 2 diabetes. *Diabetes Care* 24(8):1476–1485
4. Cattaneo M (2009) Light transmission aggregometry and ATP release for the diagnostic assessment of platelet function. *Semin Thromb Hemost* 35:158–167
5. Beyan C, Kaptan K, Ifran A (2006) Platelet count, mean platelet volume, platelet distribution width, and plateletcrit do not correlate with optical platelet aggregation responses in healthy volunteers. *J Thromb Thrombolysis* 22:161–164