Influence of preanalytical factors on the mean platelet volume

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Dear Editor,

I have read the article, ‘Increased mean platelet volume in patients with idiopathic subjective tinnitus’ by Sarikaya et al. with great interest [1]. The authors concluded that MPV values were significantly elevated in this group of patients compared with controls. MPV is an easy test to perform and almost universally available in every complete blood count (CBC). Some preanalytical factors are very important to keep in mind concerning MPV measurement [2]. The type of anticoagulant, methodology of measurement, storage time, and temperature affect the evaluation of MPV. Ethylenediamine tetraacetic acid (EDTA) as an anticoagulation agent is widely used for CBC. Artificial platelet swelling after EDTA addition to the blood samples had been described [3]. The incubation time between phlebotomy and MPV analysis is the other factor influencing MPV evaluation. In case of EDTA anticoagulated blood sample, it has been recommended to measure MPV 120 min after venipuncture [4]. There are different analyzers for MPV assessment and each specific technique is a co-variables to influence the results and we can witness up to 25 % variation in the measurement [5]. Hematologic

samples are kept at room temperature in daily routine, but other practices are also present.

Sarikaya et al., apart from EDTA usage also missed mentioning other important preanalytical components of MPV measurement. A thorough description of MPV measurement may increase the value of MPV as an effective diagnostic and prognostic factor.

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Compliance with ethical standards

Conflict of interest None.

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