The relationship between mean platelet volume and high on-treatment platelet reactivity

To the Editor,

We read the article by Jakl et al. (1) published in February issue of The Anatolian Journal of Cardiology 2014; 14: 85 with great interest. They assessed the relationship between mean platelet volume (MPV), platelet count, platelet hematocrit and high on-treatment platelet reactivity (HTPR) in patients with acute coronary syndrome treated by percutaneous coronary intervention. Study patients were divided into groups according to their response to antiplatelet treatment: normal activity (HTPR) in patients with acute coronary syndrome treated by percutaneous coronary intervention. Otherwise regression analysis must have been done to eliminate effect of these factors on MPV.

Secondly, it has to be kept in mind that there are significant associations of MPV with some cardiovascular conditions like smoking, obesity, hyperlipidemia, hypertension, coronary artery disease, metabolic syndrome, statin use and atrial fibrillation (4-6). They only compared the groups (DPR or not, PRA or not and PRC or not). We can suspect higher incidence of associated cardiovascular risk factors in patients with acute coronary syndrome treated by percutaneous coronary intervention. It has been shown that obesity, hypertension, hyperlipidemia, smoking, metabolic syndrome and atrial fibrillation increase MPV values (4-6). It has also been shown that statin use can affect MPV values (7). Absolutely, these factors should have been considered in assessment. The difference of MPV between groups might be due to these associated factors in patients with acute coronary syndrome treated by percutaneous coronary intervention. Otherwise regression analysis must have been done to eliminate effect of these factors on MPV.

MPV is universally available with routine blood counts by automated hemograms and a simple and easy method of assessing platelet function. In comparison to smaller ones, larger platelets have more granules, aggregate more rapidly with collagen, have higher thromboxane A2 level and express more glycoprotein Ib and IIb/IIIa receptors (4, 8). We believe that MPV can be affected by many inflammatory and cardiovascular risk factors. Because of that all confounding factors must be taken into account. Also standardized methods should be used for assessment of MPV.

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References

Factors influencing the use of ambulance among patients with acute coronary syndrome: results of two centers in Turkey

Dear Editor,

We have read article published in the Anatolian Journal of Cardiology about the use of ambulance among patients with acute coronary syndrome (ACS) by Demirkan et al. (1) with a great interest. In this article, it was determined that large proportion of patients with ACS were transported to hospitals in unsafe conditions instead of using ambulance. In the conclusion part; the importance of health educational programs for the formation of a behavioral changes in using ambulance and the need for a larger study were emphasized.

We are working in the Department of Paramedics, in our Eskişehir Osmangazi University, which had been founded 16 years ago. After reading the article; we decided to mention about paramedics, who are educated for working in ambulance services.

Paramedic profession was found in USA in 1970’s in prehospital emergency settings. Paramedics work on the scene of emergencies to assess a patient’s condition, provide medical care at an advanced life support level in the pre-hospital environment at the point of illness or injury and also transport the patient to a hospital if necessary (2).

Table 1. Mean platelet volume according to presence of comorbidities

<table>
<thead>
<tr>
<th>Comorbidity</th>
<th>Mean platelet volume (f)</th>
<th>Risk factor present</th>
<th>Risk factor not present</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV EF &lt;40% (n=52)</td>
<td>10.9±0.8</td>
<td>10.7±1.2</td>
<td>NS</td>
<td></td>
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<tr>
<td>Atrial fibrillation (n=22)</td>
<td>11.1±0.9</td>
<td>10.6±1.2</td>
<td>NS</td>
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</tr>
<tr>
<td>Diabetes mellitus (n=48)</td>
<td>10.8±1.7</td>
<td>10.6±0.9</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>Smoking habit (n=104)</td>
<td>10.7±0.9</td>
<td>10.5±1.3</td>
<td>NS</td>
<td></td>
</tr>
<tr>
<td>hs-CRP &lt;20 mg/L (n=27)</td>
<td>10.8±1.5</td>
<td>10.6±1.0</td>
<td>NS</td>
<td></td>
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<td>LV EF - left ventricle ejection fraction</td>
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References