and organizational and structural changes were made in the health system of Turkey in recent years (4, 5). The impact of these changes should be evaluated using national data. Therefore a research strategy and priorities should be developed by the MoH in consultation with the stakeholders in NCD control. Ministry of Health of Turkey commissioned the Chronic Diseases and Risk Factors Survey in Turkey which was a population based cross sectional survey that was based on a random sample of over age 15 population of Turkey in year 2011(6). The analyses were finalized in 2012 and the report is in press.

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Appropriate methodology is essential for accurate conclusions

Doğru sonuçlar için uygun yöntem elzemdir

Dear Editor,

We read with great interest the article published in The Anatolian Journal of Cardiology by Özlü et al. (1) regarding the predictive value of mean platelet volume (MPV) in young patients with non-ST-segment elevation acute coronary syndrome's (NSTE-ACS). Özlü et al. (1) concluded that MPV was found to be elevated in NSTE-ACS patients compared with control subjects in young population. We admire their work but we have some concerns about the methodology of the study.

Relationship between elevated MPV and NSTE-ACS has already been demonstrated in previous studies (2, 3). Özlü et al. (1) hypothesized that an increased MPV predicts development of NSTE-ACS in young patients. Seventy-nine patients, younger than 45 years old, with the diagnosis of NSTE-ACS (41 NSTEMI, 38 USAP) were included in the study. The control group was comprised of 45 subjects, who were younger than 45 years old with normal coronary arteries. The main findings of the study are reported as; increased MPV was found to be an independent predictor of NSTE-ACS in young patients and MPV of the young patients with NSTE-ACS was found to be significantly higher than the MPV of the subjects of control group.

The main problem of the study design is the control group. In order to show any difference in the "young patients" group, there must be an "elderly patients" group, but not a "young normal" group. So, the control group of the study had to be subjects who were older than 45 years old with the diagnosis of NSTE-ACS.

Another noteworthy issue is the low number of patients in the study, as the authors have already noted.

As a result, we believe that the methodology of the present study is inappropriate for the evaluation of the proposed hypothesis. A study including a proper control group is needed to reach a conclusion on this interesting topic.

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Author`s Reply

Dear Editor,

We would like to thank the authors of the letter for their interest and criticism about our study published in The Anatolian Journal of Cardiology (1) on predictive value of mean platelet volume (MPV) in young patients with non-ST-segment elevation acute coronary syndromes (NSTE-ACS) (1). We hypothesized that an increased MPV predicts development of NSTE-ACS in young patients. Seventy-nine patients, younger than 45 years old, with the diagnosis of NSTE-ACS were included in the study together with 45 subjects, who were also younger than 45 years old without acute coronary syndromes with normal coronary arteries, as the control group. The main finding of our study is; increased MPV was found

to be an independent predictor of NSTE-ACS in young patients. Also, MPV of the young patients with NSTE-ACS was found to be significantly higher than the MPV of the subjects of control group.

As mentioned in the study, we aimed to provide additional information to the literature about acute coronary syndromes of young patients which is quite limited.

There are two criticism points in the aforementioned letter; one is about the control group which is said necessarily to be formed by the elderly NSTE-ACS patients, the other is the low number of patients.

Firstly, as mentioned before our hypothesis was; an increased MPV predicts development of NSTE-ACS in young patients. Namely, our target population is young patients. For this goal we formed the control group with subjects, younger than 45 years old with normal coronary arteries and without acute coronary syndromes. Thereby we could evaluate the predictive value of MPV on the NSTE-ACS in young patients. In other words, we evaluated the predictive value of a variable -MPV- about a risk factor -ACS- in a population of young patients-. If we had an aim of evaluating the relationship between age and MPV among NSTE-ACS patients, or, if our hypothesis was; MPV of young NSTE-ACS patients are higher than of the elderly NSTE-ACS patients, we could have an elderly NSTE-ACS control group. Because of the reasons we mentioned, we did not form the control group by the elderly patients and by the NSTE-ACS patients.

Secondly, we mentioned about the low number of patients as a major limitation in the text. New studies may be designed with high numbers and provide additional data about this issue.

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Increased mean platelet volume in patients with familial Mediterranean fever may not be a marker of atherosclerosis risk

Ailevi Akdeniz Ateşli olgularda ortalama trombosit hacmindeki artış ateroskleroz riski artışının bir belirteci olmayabilir

Dear Editor,

I have read with great interest the online published article of Karakurt Arıtürk et al. (1) about the early markers of atherosclerosis in patients with Familial Mediterranean Fever (FMF) by the measurements of serum paraoxonase-1 activity, mean platelet volume (MPV) and malondialdehyde level. Authors suggested that MPV is a marker of increased platelet activity. The current "gold standard" test of platelet function is turbidometric platelet aggregometry. Beyan et al. (2) did not observe any correlation between platelet indices measured including mean platelet volume and platelet aggregation responses obtained with turbidometric platelet aggregometry in healthy subjects. MPV shows only the rate of platelet production. There is an inverse relationship between the normal platelet count and the normal MPV, resulting in a roughly constant circulating platelet mass (3). A high MPV in a thrombocytopenic patient indicates active marrow production of platelets, whereas a low MPV is indicative of marrow suppression.

In addition, MPV measurement time was not defined in materials and method of this study. The MPV varies with time in ethylenediaminetetraacetic acid (EDTA)-anticoagulated samples (4). EDTA-induced platelet shape changes result in a progressive increase in MPV with impedance technology. The MPV increases up to 30 percent within five minutes of exposure with EDTA and increases further by 10 to 15 percent over the next two hours with impedance technology. However, some investigators have reported variable increases in MPV with EDTA storage up to 50 percent. Therefore, MPV should not be reported as a routine part of the complete blood count, because of the EDTA-induced changes over time (4).

On the other hand, results of this study may be telling the truth and the patients with FMF may have higher MPV values compared to control subjects. FMF is a chronic inflammatory disease and level of C-reactive protein (CRP), the prototypic human acute phase reactant increase during attacks. Potempa et al. (5) showed that a modified form of CRP had thrombopoietic activity in both in vitro and in vivo mouse models. Increased CRP during acute-phase response may be contribute increased platelet production and increased MPV.

As a result, increased MPV in patients with FMF may not be a marker of atherosclerosis risk.

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