

## Author's Reply

To the Editor,

We thank to author(s) for contribution and criticism on our original investigation entitled "Effect of lifestyle modifications on diastolic functions and aortic stiffness in prehypertensive subjects: a prospective cohort study". Prehypertension has been shown to increase the risk of coronary artery disease and myocardial infarction (1). Six months of therapeutic lifestyle changes (TLSC) has been shown to reduce cardiovascular risk in patients with prehypertension (2, 3). There are some studies in which 24-hour urinary sodium excretion was followed during salt restriction (3, 4). On the contrary, some investigators did not follow 24-hour urinary sodium excretion (2, 5). Surely, it would be better to restrict salt followed by urinary sodium excretion. Unfortunately, 24-hour urinary sodium excretion was not monitored in our study because it was rejected by 40% of the participants. However, it should be noted in our study that salt restriction was applied to the control of a dietician.

In our study blood pressure reduction was achieved with TLSC. In accordance with the study of Bavikati et al. (6), TLSC resulted a decrease in both systolic and diastolic blood pressures (BP). Similar to our work, smoking, alcohol use, insulin, C-reactive protein (CRP), urinary sodium excretion, liver and renal functions of participants were not evaluated at baseline and 6<sup>th</sup> month of their study. Since our primary goals were to evaluate aortic stiffness and diastolic parameters response to TLSC, we did not investigated additional parameters such as homeostatic model assessment (HOMA) index, hsCRP or sTWEAK, and some details were not presented. Five male participants were alcohol consumers and 18 were smokers at the beginning of the study and both alcohol consumers and smokers quitted alcohol consuming and smoking in two weeks after participation. In addition, all study subjects' liver and renal functions were normal. Those with abnormal liver and renal functions were not included in the study. We found critics rightful in regard to insulin resistance and some serum inflammatory markers. Surely, it would have further validated our findings, if we had evaluated these parameters.

At the end of the study, we considered that we have reached our goals in terms of TLSC. Although, the decrease in body mass index did not reach statistical significance, participants had significant reduced waist circumference. Decreased waist circumference has been shown to reduce cardiovascular risk. Furthermore, it has been shown that exercise may reduce blood pressure independent of weight loss.

Patients often exercised as brisk walking at least 180 minutes per week. Patients' plasma glucose, uric acid levels and triglycerides decreased, while HDL levels increased but did not reach statistical significance.

Finally, the author(s) claim(s) that improvement in diastolic functions is due to sodium restriction. Certainly, sodium restriction may play a role in the improvement of diastolic functions. However, we believe that decrease in aortic stiffness and improvements of diastolic functions occur due to lower blood pressures and decreased waist circumference after TLSC.

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## References

1. Alpsoy S, Oran M, Topcu B, Akyüz A, Akkoyun DÇ, Değirmenci H. Effect of lifestyle modifications on diastolic functions and aortic stiffness in prehypertensive subjects: a prospective cohort study. *Anadolu Kardiyol Derg* 2013; 13: 446-61.
2. Qureshi AI, Suri MF, Kirmani JF, Divani AA, Mohammad Y. Is prehypertension a risk factor for cardiovascular diseases? *Stroke* 2005; 6: 1859-63. [CrossRef]
3. Marquez-Celedonio FG, Texon-Fernandez O, Chavez-Negrete A, Hernandez-Lopez S, Marin-Rendon S, Berlin-Lascurain S. Clinical effect of lifestyle modification on cardiovascular risk in prehypertensives: PREHIPER I study. *Rev Esp Cardiol* 2009; 62: 86-90.
4. Appel LJ, Champagne CM, Harsha DW, Cooper LS, Obarzanek E, Elmer PJ, et al. Effects of comprehensive lifestyle modification on blood pressure control: main results of the PREMIER clinical trial. *JAMA* 2003; 289: 2083-93. [CrossRef]
5. Kojuri J, Rahimi R. Effect of "no added salt diet" on blood pressure control and 24 hour urinary sodium excretion in mild to moderate hypertension. *BMC Cardiovasc Disord* 2007; 7: 34. [CrossRef]
6. Bavikati VV, Sperling LS, Salmon RD, Faircloth GC, Gordon TL, Franklin BA, et al. Effect of comprehensive therapeutic lifestyle changes on prehypertension. *Am J Cardiol* 2008; 102: 1677-80. [CrossRef]

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## Comment on "Traditional coronary risk factors in healthy Turkish military personnel between 20 and 50 years old: focus on high-density lipoprotein cholesterol"

*20 ila 50 yaşında sağlıklı Türk askeri personelinde geleneksel koroner risk faktörleri: Yüksek yoğunluklu lipoprotein kolesterole odaklanma üzerine yorum*

To the Editor,

We read the article, "Traditional coronary risk factors in healthy Turkish military personnel between 20 and 50 years old: focus on high-density lipoprotein cholesterol" written by Barçın et al. (1).

Authors have concluded that the high-density lipoprotein-cholesterol (HDL-C) level needs further clarification in specific age groups without sedentary lifestyle in Turks.

The study is cross-sectional and has good design. But currently we know that nutritional status-saturated fatty acids (SFAs), monounsaturated fatty acid (MUFA), n-6 polyunsaturated fatty acid (PUFAs), n-3 fatty acids, carbohydrate consumption, fructose/sucrose intake, ethanol consumption, weight reduction-has more pronounced effect than sedentary lifestyle on HDL-C levels (2-4).

So, if the study has included the above variables (nutritional status) in addition to sedentary lifestyle, results could be more valid.

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## References

1. Barçın C, Kabul HK, Tapan S, Küçük U, Çöl M. Traditional coronary risk factors in healthy Turkish military personnel between 20 and 50 years old: focus on high-density lipoprotein cholesterol. *Anadolu Kardiyol Derg* 2013 Jul 4. doi: 10.5152/akd.2013.176. Epub ahead of print. [CrossRef]
2. Mensink RP, Zock PL, Kester AD, Katan MB. Effects of dietary fatty acids and carbohydrates on the ratio of serum total to HDL cholesterol and on serum lipids and apolipoproteins: a meta-analysis of 60 controlled trials. *Am J Clin Nutr* 2003; 77: 1146-55.
3. Mooradian AD, Haas MJ, Wong NC. The effect of select nutrients on serum high-density lipoprotein cholesterol and apolipoprotein A-I levels. *Endocr Rev* 2006; 27: 2-16. [CrossRef]
4. Kelly S, Frost G, Whittaker V, Summerbell C. Low glycemic index diets for coronary heart disease. *Cochrane Database Syst Rev* 2004;4:CD004467.

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## Author's Reply

To the Editor,

We thank to authors for their valuable comments on our article, "Traditional coronary risk factors in healthy Turkish military personnel between 20 and 50 years old: Focus on high-density lipoprotein cholesterol"(1). The author mainly mentions that dietary factors effects are important in the high-density lipoprotein-cholesterol (HDL-C) level and would have been better if they were included in the analysis.

Firstly, we agree with the author about the effects of dietary factors on HDL-C. However, our study had a retrospective design examining the results of blood tests, anthropometric measurements as well as the questionnaires, which were given the military personnel during their routine health examination. Therefore, we had a very limited amount of information on dietary habits of the participants.

Secondly, although controlled studies show that HDL-C changes with the life style factors the magnitude of this change is small compared to other lipid parameters. In addition, it is difficult to control dietary habits for long years in real world. Furthermore, despite very different dietary habits in different regions of Turkey, cross sectional epidemiologic studies found similar HDL-C levels among these regions (2).

Thirdly, the main focus of our study was that, although Turkish population was regarded as a population with characteristically low HDL-C in relatively old studies (2, 3), we don't think so according to the recent epidemiologic studies including ours (4-6). In addition, what we observe in our daily clinical practice is HDL-C changes little and stays within a narrow band during follow-up of the patients. The interesting finding of our study came out as a result of comparison the lipid levels of military school students whose age was 21.4±4.5 years, and military

professionals with the age of 35.3±6.9 years. Although this comparison is not a longitudinal analysis of the same population, considering the professionals had been recruited to the military school with the same criteria, we speculated that they might have been similar to the current military school students. Despite older age, higher weight and waist circumference, less exercise levels, the HDL-C was the only lipid parameter that was similar between two groups. As can be seen in the article, all of other cardiovascular risk factors were different and were in negative direction in professionals in terms of CV risk.

So, we believe that a.) genetics is the major determinant of HDL-C; b.) Turkish population has not low levels of HDL-C, at least not as low as once thought. Of course, it is not fair to ignore the effects of life style and dietary component on this macromolecule. Clearly, we need well-controlled prospective studies with sufficient sample size.

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## References

1. Barçın C, Kabul HK, Tapan S, Küçük U, Cöl M. Traditional coronary risk factors in healthy Turkish military personnel between 20 and 50 years old: focus on high-density lipoprotein cholesterol. *Anadolu Kardiyol Derg* 2013 Jul 4. doi: 10.5152/akd.2013.176. Epub ahead of print. [CrossRef]
2. Onat A. Risk factors and cardiovascular disease in Turkey. *Atherosclerosis* 2001; 156: 1-10. [CrossRef]
3. Mahley RW, Palaoğlu KE, Atak Z, Dawson-Pepin J, Langlois AM, Cheung V, et al. Turkish Heart Study: lipids, lipoproteins, and apolipoproteins. *J Lipid Res* 1995; 36: 839-59.
4. Kozan O, Oğuz A, Abacı A, Erol C, Öngen Z, Temizhan A, et al. Prevalence of the metabolic syndrome among Turkish adults. *Eur J Clin Nutr* 2007; 61: 548-53.
5. Kabakçı G, Koylan N, Kozan O, Büyükköztürk K, İlerigelen B, ICEBERG Investigators. Evaluation of the metabolic syndrome in hypertensive patients: results from the ICEBERG Study. *J Cardiometa Syndr* 2007; 2: 168-73. [CrossRef]
6. Altun B, Arıcı M, Nergizoğlu G, Derici U, Karatan O, Turgan C, et al. Prevalence, awareness, treatment and control of hypertension in Turkey (the PatenT study) in 2003. *J Hypertens* 2005; 23: 1817-23. [CrossRef]

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## Hipertansiyonda cerrahi tedavi

### *Surgical treatment of hypertension*

Sayın Editör,

İnal ve ark. (1) tarafından derginizde yayınlanan "Dirençli hipertansiyonda yeni bir tedavi yaklaşımı: Renal sempatik denervasyon" isimli yazıyı ilgiyle okuduk. Yazarları bu yazılarından dolayı tebrik ediyoruz. Hipertansiyon (HT) tüm dünyada ve toplumumuzda en sık görülen önlemlenebilir ölüm ve sakatlık sebebidir. Ülkemizde HT prevalansı için yapılan ilk çalışma olan TEKHARF'in sonuçlarına göre HT sıklığı %33,7, başka bir çalışma olan PATENT'de ise %31,8 olarak tesbit edilmiştir (2). Maalesef çalışmalar aynı zamanda tedavi hedefleri ve hasta bilinci hususunda