Arterial stiffness evaluation in patients with irritable bowel syndrome: Role of antihypertensive drugs and statins

To the Editor,

We are very pleased to read with great interest to the article by Durakoğlugil et al (1). They investigated heart rate variability, carotid intima-media thickness, and carotid-femoral pulse wave velocity (cf-PWV) as a measure of arterial stiffness in patients with irritable bowel syndrome in the recent study titled “The effect of irritable bowel syndrome on carotid intima-media thickness, pulse wave velocity and heart rate variability” and published in Anatol J Cardiol 2014; 14: 525-30 (1). They found that cf-PWV values were similar between patients with irritable bowel syndrome and controls. This is a well-written study. However, I want to pay attention to the antihypertensive drugs used by patients that can affect arterial stiffness.

Arterial stiffness is a complex process associated with confounding factors. Cecelja et al. (2) published a systematic review that showed that the contribution of cardiovascular risk factors other than age and blood pressure to aortic stiffness measured by cf-PWV is small or insignificant, and that age and blood pressure consistently showed an independent association with aortic stiffness. It has also been shown that some antihypertensive drugs such as angiotensin-converting enzyme inhibitors, calcium channel blockers, and spiranolate reduce arterial stiffness (3-5). In addition to angiotensin-converting enzyme inhibitors, β-blockers and aliskiren as direct renin inhibitors reduce arterial stiffness (5). Recent meta-analysis showed that angiotensin receptor blocker treatment also improves arterial stiffness (6).

In the study by Durakoğlugil et al. (1), there is no information regarding the antihypertensive drugs used. Similarly, statins also reduce arterial stiffness, but there is also no data regarding their use. From this aspect, antihypertensive drugs and statins should be considered in aortic stiffness evaluation. It would be helpful if the authors provided this information.
Ercan Varol
Department of Cardiology, Faculty of Medicine, Süleyman Demirel University, Isparta-Turkey

References


Address for Correspondence: Dr. Ercan Varol
Süleyman Demirel Üniversitesi Tip Fakültesi, Isparta-Türkiye
Phone: +90 532 346 82 58
Fax: +90 246 232 45 10
E-mail: drercanvarol@yahoo.com
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Author’s Reply

To the Editor,

We enthusiastically read the letter regarding our article titled “Arterial stiffness evaluation in patients with irritable bowel syndrome: role of antihypertensive drugs and statins” published in Anatol J Cardiol 2014; 14: 525-30 (1).

Increased arterial stiffness reflecting decreased arterial compliance is an important marker of vascular aging (2). We demonstrated that carotid-femoral pulse wave velocity (PWV), the current gold standard measure of arterial stiffness did not differ between patients with irritable bowel disease and healthy control subjects (1). Arterial stiffness is mainly associated with aging and hypertension (3). As the authors kindly mentioned, antihypertensive drug groups tend to have different effects on arterial stiffness besides blood pressure-lowering effects. Angiotensin-converting enzyme inhibitors, angiotensin receptor blockers, calcium channel blockers, and mineralocorticoid antagonists decrease PWV, whereas diuretics and β-blockers (except nebivolol) have neutral or negative influence (4). The effect of statins on arterial stiffness is still controversial due to conflicting results (5, 6). Although, 23% of patient population and 37% of control group had hypertension in our study, there was no significant difference between the groups. Unfortunately, we did not record antihypertensive drug groups at inclusion; thus, we do not have the relevant data. We excluded patients on β-blocker treatment due to the impact on heart rate variability. Due to the facts that the percentage of hypertensive patients was not different statistically, exclusion of β-blocker treatment, and having only one patient on statin treatment within each group, we do not think these presumed drug associations would have influenced our results. We thank the authors for their scrutiny and valuable remarks.

M. Emre Durakoğlugil, Sinan Altan Kocaman
Department of Cardiology, Faculty of Medicine, Recep Tayyip Erdogan University, Rize-Turkey

References


Address for Correspondence: Dr. Murtaza Emre Durakoğlugil
Recep Tayyip Erdogan Üniversitesi Tip Fakültesi, Kardiyoloji Anabilim Dalı, Rize-Türkiye
E-mail: emredur@hotmail.com

Can epicardial adipose tissue predict coronary artery plaque?

To the Editor,

We read with great interest the manuscript written by Çullu et al. (1) titled “Does epicardial adipose tissue volume provide information about the presence and localization of coronary artery disease?” published in the May 2015 issue of Anatol J Cardiol 2015; 15: 355-9. In that study, authors investigated the relationship between the epicardial adipose tissue (EAT) volume and the atherosclerotic coronary artery plaques evaluated by computed tomography (CT). In this study, EAT volumes were found to be significantly higher in patients with coronary plaques than in patients without plaques. Furthermore, the left anterior descending (LAD) artery and multivessel located coronary atheromatous plaques were associated with higher EAT volumes than other coronary artery locations as well as with the absence of coronary plaques. One of the most important finding in this study is that the frequency of