

Factors Related with Both Atherosclerosis and Homocysteine Levels

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To the editor,

We have read with great interest the article published by Karadeniz et al. which was about the association between homocysteine levels and severity of coronary artery disease. It is reported that homocysteine levels are significantly higher in patients with high SYNTAX score than patients with low and moderate SYNTAX scores.¹

B12 and folate deficiency are well known causes of hyperhomocysteinemia. Vitamin B12 deficiency is independently associated with increased pulsed wave velocity and atherogenic dyslipidemia in diabetic patients.² As a result of these findings vitamin B12 deficiency can be accepted as a risk factor for atherosclerosis irrespective from homocysteine levels.

Lipid lowering agents and metformin are related with increased homocysteine levels. Metformin is the main treatment option in diabetes and it is shown that metformin reduces micro and macrovascular complications of diabetes. Metformin can cause both vitamin B12 deficiency and hyperhomocysteinemia. Lipid lowering agents such as fibrates and nicotinic acid may lead hyperhomocysteinemia and these drugs are used for

prevention from cardiovascular diseases in diabetic patients.³⁻⁵

To conclude, as being associated factors with both atherosclerosis and homocysteine levels, it would be better either B12 levels and patients' medications were also evaluated.

CONFLICT OF INTEREST

All the authors declare no conflict of interest.

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