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LETTER TO THE EDITOR

Reply to Letter to the Editor ''Ischemic stroke and homocysteine: To test or not to test?''

Resposta a carta ao Editor «AVC isquémico e homocisteinemia: testar ou não estar?»

In response to the Editorial Comment ''Homocysteinemia and vascular disease: where we stand in 2022'', recently published in the *Journal*,[1] Laura Guerreiro, Sofia Rosado Julião and Mariana Alves present a Letter to the Editor entitled ''Ischemic stroke and homocysteine: to test or not to test?''[2]

In general, this letter agrees with the main positions of the editorial,[1] pointing out that, according to the VITATOPS trial, the impact of lowering homocysteine was very low in preventing cardiovascular events and that treatment with vitamin B supplements was of dubious benefit in preventing major vascular events.[3]

Guerreiro et al.'s letter also discusses the usefulness of testing homocysteinemia.

According to the authors, in their center assessment of homocysteine levels is limited to patients included in the 'Stroke in young patients' protocol or for research purposes.

This raises an important question that deserves consideration: when to seek new, less tested, or minor risk factors?

It makes sense to look for rare causes or minor risk factors when there are no common causes or major risk factors that can explain the clinical situation.

In the absence of very high previous cardiovascular risk, young patients with stroke constitute a population that, in my opinion, justifies a wider assessment, in particular looking for infrequent causes of the disease. In these circumstances, I agree with the idea of testing homocysteine levels in young patients with stroke. These patients should probably also be tested for other rare conditions with a procoagulant effect, such as protein S or protein C deficiency, as well as excluding antiphospholipid syndrome.

However, in my view, assessment of homocysteine and of other minor or dubious risk factors should not be limited to young patients.

In the secondary prevention of atherosclerotic disease at whatever age, I suggest homocysteine should be assessed shortly after diagnosis when conventional risk factors cannot explain the disease. This logical opinion is supported by the data presented in Guerreiro et al.'s letter, in which the percentage of homocysteine levels above cutoff is greatest in the oldest group analyzed (in the group aged 60 to 65 years, two-thirds presented homocysteine above the cutoff).

In medium- and long-term follow-up, I suggest looking for other causes if, after appropriate medication and control of known factors, the patient suffers repeated major atherosclerotic events.

Appropriately medicated patients who suffer repeated ischemic events after successful percutaneous coronary intervention are a good example of the need to go further in their assessment.

To conclude, I generally agree with Guerreiro et al.'s letter that there is no indication for universal homocysteine testing and that this assessment should be limited to certain groups, of which younger patients with stroke are one. In my view, testing homocysteine levels can also benefit patients with severe atherosclerotic disease not explained by conventional risk factors and, in the follow-up, homocysteine assessment can help patients with repeated atherosclerotic complications, after following the best practice to control their known and proved prognostic factors.

Conflicts of interest

The author has no conflicts of interest to declare.

References

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