Subclinical Cerebrovascular Disease and Cognitive Decline

To the Editor:

We read with interest the article by Wendell et al published in the October issue of Stroke. In a longitudinal population-based study, including 538 persons, aged 20 to 93 years, without clinical vascular disease, the authors have found that carotid intimal medial thickness (IMT) predicts cognitive decline, particularly in the memory domain. Initial IMT measurements of the right common carotid arteries have been performed and participants have undergone repeated standard neuropsychological testing over up to 11 years of follow-up. However, a single assessment of carotid IMT does not allow the course of the carotid atherosclerosis to be evaluated. In a population-based ultrasonographic study, a progression but also a regression of asymptomatic carotid stenosis have been revealed. Smoking, an important risk factor for carotid atherosclerosis, is not precisely defined. Besides, the socioeconomic status, which could modify the association between IMT and cognition, is not considered. Furthermore, because of a lack of MRI, the presence of white matter lesions could not be excluded and their associations with cognitive decline cannot be discussed. In the Framingham Offspring Study, the increased IMT has been found as a significant risk factor for silent cerebral infarcts, presenting in 10.7% of the participants. Recently, a relationship among increased carotid IMT, cognitive performance, and brain MRI abnormalities, simultaneously measured among geriatric outpatients with cardiovascular disease, has been reported.

Obviously, well-designed longitudinal studies combining ultrasonography, neuroimaging, and standard neuropsychological testing in adults with vascular risk factors are needed aiming toward an early diagnosis and treatment of subclinical cerebrovascular diseases.

Disclosures

None.

Dimiter Ivanov Hadjievi, MD, DMSc
Medical University
Sofia, Bulgaria

Petya Pencheva Mineva, MD, PhD
Thracian University
Stara Zagora, Bulgaria


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Dimiter Ivanov Hadjieva and Petya Pencheva Mineva

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