Carotid sinus hypersensitivity

Carotid sinus hypersensitivity: an age-related phenomenon

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A study on patients aged 15–99 years underlines and better defines the known age dependency of carotid sinus hypersensitivity

The issue of the contribution of carotid sinus massage (CSM) to the diagnosis of syncope remains unsettled. When recurrent syncope falls, or both remain unexplained after a careful initial evaluation, including a detailed history, physical examination and standard electrocardiogram, the guidelines of the European Society of Cardiology recommend that a tilt test be conducted in young patients and CSM in older patients.¹ In previous guidelines, patients aged >40 years were eligible for CSM.² The retrospective study reported by Humm and Mathias (*see p 1267*) in this issue of the *Journal of Neurology, Neurosurgery and Psychiatry* has been conducted on 373 patients who underwent CSM for unexplained syncope or falls. The objective was to determine the frequency, age distribution and clinical presentation of carotid sinus hypersensitivity (CSH). This study, including patients with a wide range of ages (15–99 years), underlines and better defines the known age dependency of CSH. The diagnostic yield, in terms of CSH, was 0% for patients aged <49 years and only 2.4%

for those aged 50–59 years. These results question the tendency to test for carotid sinus reactivity in patients before they reach 60 years of age.

This study³ also confirms the high prevalence of CSH in older patients with unexplained syncope. The diagnostic yield of CSM was 20.7% in patients aged 70–79 years and 40.4% in those aged >80 years. However, CSH is common in older patients, even in those with no history of syncope or falls. Kerr *et al*⁴ found that CSH was present in 106 (39%) of 272 subjects from an unselected community sample of people aged >65 years. Such results underline the difficulty in determining whether CSH is the cause of the syncope or is just an association by chance of two frequent findings in this age category.

Humm and Mathias³ report that only 13.7% of patients with CSH had the cardioinhibitory type of response. All these patients were symptomatic during carotid massage, whereas most patients with mixed or vasodepressor types remained symptom free. The diagnosis of carotid sinus syncope seems more firmly established when the response is

of the cardioinhibitory type and gives rise to symptoms. Other types of responses should be interpreted cautiously, so that other causes of syncope that would benefit from specific treatments are not missed.

Carotid sinus sensitivity screening must be performed by trained doctors. The screening requires electrocardiography and blood pressure monitoring of patients in supine and standing positions. Thus, it entails a cost in terms of time and money. Complications, mainly neurological, are rare. However, patients must be informed of these potential hazards. Considering these facts, CSM should be used only in selected patients with unexplained syncope. The results provided by Humm and Mathias contribute to better selection of patients who may benefit from this procedure.

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