

High-Grade Carotid Artery Stenosis and Atrial Fibrillation



To the Editor:

The disclosure of a higher rate of stroke among patients with the association of nonvalvular atrial fibrillation and peripheral vascular disease¹ is entirely predictable given the fact that Kanter et al² have shown that, among patients with nonvalvular atrial fibrillation, high-grade carotid artery stenosis (a risk factor for stroke)³ had a prevalence of 12% among men aged >70 years, and a prevalence of 11% among women of that age group. Furthermore, in their systematic review of 9 studies (2611 patients) reporting presumed pathophysiological stroke mechanisms in patients with atrial fibrillation, Katsi et al⁴ showed that 11%-24% of patients with the association of stroke and nonvalvular atrial fibrillation have high-grade (>50% stenosis) carotid artery stenosis.

Some stroke patients with nonvalvular atrial fibrillation have high-grade carotid artery stenosis ipsilateral to the cerebral infarct, as was the case in 15 of the 25 stroke patients evaluated by Chang et al.⁵ In view of the above observations,²⁻⁵ it would be informative to ascertain what proportion (if any) of the patients studied by Vitalis et al¹ had high-grade carotid artery stenosis.

The association of high-grade carotid artery stenosis, nonvalvular atrial fibrillation, and stroke has profound therapeutic implications. In a review of 1594 patients who had undergone carotid endarterectomy for symptomatic carotid artery stenosis, Ugurlucan et al⁶ identified 165 patients with concomitant atrial fibrillation who had been managed with the combination of warfarin (to mitigate the risk of cardioembolic stroke) and aspirin (to mitigate the risk of

recurrence of atherothrombotic stroke). In that cohort the international normalized ratio was maintained at 2-3, and the aspirin dose was confined to 100 mg/day. In the follow-up period of a mean of 64.4 months, 3 patients died from intracranial hemorrhage, and 3 others "required exploration against bleeding."⁶ Direct oral anticoagulants mitigate the risk of intracranial haemorrhage.⁷

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