Aspirin for Prevention of Stroke in Atrial Fibrillation

To the Editor:

In the Japan Atrial Fibrillation Stroke Trial (JAST), aspirin at 150 to 200 mg per day does not seem to be either effective or safe for the prevention of stroke in patients with nonvalvular lone atrial fibrillation (AF). JAST is an important trial because many guidelines suggest that low risk patients with AF should be treated with aspirin, although the evidence, until recently, was limited.

Previous studies already suggest that aspirin is a poor second best to warfarin for the prevention of stroke and thromboembolism in AF, especially in AF patients at moderate-high risk.2 In a recent Cochrane review, aspirin use was associated with nonsignificant lower risks of all stroke, ischemic stroke, all disabling or fatal stroke and all-cause death in AF.3

The overall reduction of stroke with aspirin in AF trials is also similar to the 22% odds reduction of vascular events by antiplatelet therapy in high risk vascular disease patients.4 Because AF commonly coexists with vascular disease, the effect of aspirin on stroke reduction may simply reflect the effect on vascular disease, rather than AF per se. Thrombus in AF is fibrin-rich (red clot) rather than platelet-rich (white clot), and coagulation abnormalities predominate in the prothrombotic state associated with AF, giving a rationale for warfarin over aspirin.5 Thus, there is no reason to suppose that aspirin in AF is acting any differently from aspirin in general cardiovascular disease prevention, and aspirin 75 to 325 mg daily could be used in AF for this purpose, at least from the (theoretical) pathophysiological viewpoint.

Concomitant use of aspirin plus anticoagulation is common, if AF coexists with vascular disease; however, such a strategy has limited evidence for additional thromboprophylactic benefit, but increases the risk of bleeding.6 Even in postmyocardial infarction patients, a significant benefit of aspirin was only seen during first 35 days (with 26 fewer deaths per 1000 treated patients), with little further benefit or loss subsequently.7 However, more data are required for patients undergoing coronary artery stenting, especially because 6–12 months aspirin-clopidogrel therapy is recommended after the use of drug-eluting coronary stents; such triple antithrombotic therapy (warfarin, aspirin plus clopidogrel) use could pose a high risk of bleeding when used in AF patients.8

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