Atrial Fibrillation, Stroke, and Acute Antithrombotic Therapy

To the Editor:

Hart and colleagues summarize data for patients with acute presumed cardioembolic stroke from some, but not all, trials studying antithrombotic therapy. We believe that it is appropriate to share relevant data from the Tinzaparin in Acute Ischemic Stroke Trial (TAIST) study, a large trial comparing subcutaneous tinzaparin (a low-molecular-weight heparin [LMWH]) at 2 doses (175 anti-Xa IU/kg daily, 100 anti-Xa IU/kg) and oral aspirin (300 mg daily given for 10 days). TAIST recruited a total of 1486 patients of whom 368 (24.8%) had stroke secondary to presumed cardioembolism; AF was present in 181 patients (Table 1 of Reference 2). Although it has been suggested that patients with cardioembolic stroke might benefit acutely from anticoagulation, we found no evidence of this with respect to recurrence during treatment or functional outcome at 6 months (Table).

When assessing the 2 trials together, which compared an LMWH with aspirin (TAIST and HAEST), LMWH did not benefit patients with presumed cardioembolic stroke: early recurrence, odds ratio 1.35 (95% CI, 0.72 to 2.61); death or dependency, odds ratio 1.18 (95% CI, 0.87 to 1.61). Similar findings were present in a meta-analysis of non-aspirin controlled trials of LMWH. Hence, it appears that LMWH do not reduce early recurrence in patients with AF or other causes of presumed cardioembolic stroke. We concur with Hart and Pearce that “early aspirin therapy is sensible” in such patients.

Nevertheless, the subsequent statement that low-dose subcutaneous heparin can be added for the “prevention of venous thrombosis if substantial leg weakness is present” can be questioned. While LMWH undoubtedly reduce the incidence of venous thromboembolism (VTE, deep vein thrombosis and/or pulmonary embolism), VTE is now uncommon (2.6% in aspirin-treated patients in TAIST) while heparin has real costs: safety (hemorrhage), time (pharmacy, nursing, medical) and financial (drug). We now need a controlled trial to assess the safety, efficacy, and health economics of giving heparin on top of routine measures that limit VTE, eg, early mobilization, fluids, compression stockings, and aspirin. Such a trial might need to recruit 2500 patients or more.

Philip M. Bath, MD, FRCP
for the TAIST Investigators
Centre for Vascular Research
University of Nottingham
Nottingham, UK

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Philip M. Bath and for the TAIST Investigators

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