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REPLY: Left Atrial Appendage Occlusion Devices Versus Pharmacological Agents for Stroke Prevention in Atrial Fibrillation



We thank Drs. Messori and Trippoli for their comments on our paper (1). They importantly highlight the issue that the only 2 randomized trials in the field of left atrial appendage occlusion used warfarin as the control value. Both randomized trials, PROTECT AF (WATCHMAN Left Atrial Appendage System for Embolic PROTECTION in Patients With Atrial Fibrillation) (2) and PREVAIL (Watchman LAA Closure Device in Patients With Atrial Fibrillation Versus Long Term Warfarin Therapy) (3), compared the Watchman device (Boston Scientific, Marlborough, Massachusetts) versus a control arm of warfarin. The PROTECT AF trial had been planned when warfarin was the most commonly used anticoagulant agent. Subsequently, several novel oral anticoagulant agent (NOACS) have now been tested versus warfarin for stroke prevention in the setting of nonvalvular atrial fibrillation.

Important questions remain, including what would be the result of a randomized trial of Watchman versus any one of the NOACS? No randomized trial is available. Messori et al. (4) have advanced the field using an indirect comparison

approach on the basis of a specific noninferiority margin that had been used in other randomized trials in the field of NOACs versus warfarin. Initially published in 2013, they have updated data in this current letter (Figure 1 of Holmes Jr. [1]). In this indirect comparison analysis, the “effectiveness of Watchman fully satisfies the noninferiority criteria” of device versus NOAC and even suggests superiority.

These findings are very important, interesting, and exciting. We agree, however, with Dr. Messori and colleagues that these “indirect analysis are largely speculative”; they need to be replicated in more robust scientific studies. This analysis, however, does offer the potential that the role of left atrial appendage occlusion devices will increase even in the face of availability of new anticoagulant regimens.

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