

Thoracoscopic Left Atrial Appendage Occlusion for Stroke Prevention Compared With Long-Term Warfarin Therapy in Patients With Nonvalvular Atrial Fibrillation



In their recent paper, Fu et al conclude that thoracoscopic left atrial appendage (LAA) occlusion is superior to warfarin for a composite outcome of stroke, systemic embolism, and mortality.¹ We suggest considering their results with caution.

First, guidelines recommend direct oral anticoagulants (DOACs) as the first-line therapeutic option for nonvalvular atrial fibrillation.^{2,3} In certain cohorts, DOACs were prescribed in over 70% of patients with a new diagnosis of atrial fibrillation.^{4,5} DOACs are superior to warfarin for stroke, intracranial bleeding and mortality.⁶ Given this change in the therapeutic landscape for nonvalvular atrial fibrillation, the generalizability of the authors' conclusion is challenging, as DOACs appear to be the new standard of care.

Second, Fu et al's results are fragile and at high risk of attrition bias. For their primary outcome, the calculated fragility index (which uses Fisher's exact test) is 0—based on 19 events among 235 participants with warfarin therapy and 9 events among 257 participants with LAA occlusion.⁷ The fragility index is used to determine the number of patients required to switch from one group to another to render the results of a study insignificant. In this

case, the fragility index of 0 indicates that the authors' result is insignificant using Fisher's exact test.⁷ Such a discrepancy is due to the authors' use of the chi-square test for analyzing categorical variables. In addition, more patients were lost to follow-up than experienced the primary outcome—17 participants in the LAA occlusion group and 14 participants in the warfarin therapy group.

The article by Fu et al concludes that thoracoscopic LAA occlusion is superior to warfarin for patients with nonvalvular atrial fibrillation. However, given the methodologic limitations of their study, clinicians should not translate these findings into their clinical practice. Furthermore, patients' increasing preference for DOACs further limits the implications of their findings for clinical practice.

Disclosures

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