
In Response:
We thank Vroomen et al1 for their letter detailing the benefits of hybrid atrial fibrillation ablation, involving thoracoscopic epicardial ablation combined with endocardial catheter ablation followed by an epicardial left atrial appendage (LAA) clip procedure, performed in an experienced center.2

However, wider adoption of this approach as routine clinical practice is not without concerns. Epicardial LAA closure/excision has been performed for many years although follow-up imaging studies have shown that successful closure using a variety of closure techniques may only range between 0% and 73%. Importantly, a significant proportion of patients with unsuccessful closure had evidence of thromboembolic events.3 Technology for epicardial LAA closure has since evolved, including more modern epicardial LAA clip devices. Although improved efficacy has been shown in preliminary studies, data from multicentre trials are currently lacking. This is in contrast to the high successful closure rates (between 93% and 99%) in patients undergoing percutaneous LAA occlusion device implantation observed in the PROTECT AF (Watchman Left Atrial Appendage Closure Technology for Embolic Protection In Patients With Atrial Fibrillation) and PREVAIL (Prospective Randomized Evaluation of the Watchman LAA Closure Device In Patients With Atrial Fibrillation Versus Long Term Warfarin Therapy) randomized controlled studies that allowed the discontinuation of warfarin.4 Furthermore, hybrid ablation requires the presence of both a cardiothoracic surgeon and cardiac electrophysiologist. This may be a logistical challenge and, combined with a potentially higher risk of complications5 and possibly longer hospital stays, may add to the procedural costs over and above a solely percutaneous approach.

Nonetheless, the concept of LAA electric isolation and occlusion in a single step is attractive from a purely catheter-based strategy, as reported by our group, or hybrid approach. However, the net clinical benefit and wider applicability will need to be substantiated by larger multicenter studies.

Disclosures
Dr Panikker has received a research grant from Boston Scientific. Dr Virmani is a consultant for Abbott Vascular, Medtronic, 480 Biomedical, and W.L. Gore; has speaking engagements with Merck and receives honoraria from Abbott Vascular, Boston Scientific, C.R. Bard, Medtronic, Microport Medical, OrbusNeich Medical, 480 Biomedical, and Terumo Corporation. The other authors report no conflicts.

References

Response by Panikker et al to Letter Regarding Article, "Left Atrial Appendage Electrical Isolation and Concomitant Device Occlusion to Treat Persistent Atrial Fibrillation: A First-in-Human Safety, Feasibility, and Efficacy Study"
Sandeep Panikker, Julian W.E. Jarman, Renu Virmani, Robert Kutys, Shouvik Haldar, Eric Lim, Charles Butcher, Habib Khan, Lilian Mantziari, Edward Nicol, John P. Foran, Vias Markides and Tom Wong

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