

results seem congruent with other published reports that collectively suggest that the technique or methodology by which posterior wall isolation (PWI) is performed can greatly influence the clinical outcomes. As illustrated by Worck et al,² successful/durable PWI often proves challenging using POBI alone. Meanwhile, a large meta-analysis of 26 independent studies recently found that PWI performed using POBI was associated with a significantly higher rate of AF recurrence than direct posterior wall ablation (ie, “non-POBI”) irrespective of the energy modality (be it cryoenergy or radiofrequency).³ Yet, a prior study by Saad and Slater⁴ has shown that a POBI strategy “validated” through detailed and meticulous interrogation of the linear lesions can be associated with superior clinical efficacy. Similarly, a more recent prospective study⁵ of patients with implanted cardiac monitors who underwent repeat mandatory ablation after an index pulmonary vein isolation + POBI illustrated that a durable (“reinforced”) PWI approach was associated with reduced long-term freedom from recurrent AF. Thus, based on these findings, it seems prudent to specifically differentiate between the available PWI methods and techniques when examining the outcomes of this ablation strategy in clinical studies and practice.

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REPLY: The Clinical Outcomes and Success of Posterior Wall Isolation Using a “Box” Approach



We would like to thank Dr Aryana and colleagues for their comments on our paper.¹ We conducted a randomized clinical trial to evaluate the effect of posterior box isolation (POBI) (complete electrical isolation of left atrial posterior wall) by a roof and inferior posterior lines and additionally using voltage-guided endocardial ablation (pepper lesions) in patients with persistent atrial fibrillation (AF). However, the usefulness of POBI could not be confirmed in randomized controlled trials such as the POBI (Comparison of Circumferential Pulmonary Vein Isolation Alone Versus Linear Ablation in Addition to Circumferential Pulmonary Vein Isolation for Catheter Ablation in Persistent Atrial Fibrillation: Prospective Randomized Controlled Trial)² and CAPLA (Catheter Ablation for Persistent Atrial Fibrillation: A Multicenter Randomized Trial of Pulmonary Vein Isolation Versus PVI with Posterior Left Atrial Wall Isolation; presented at European Society of Cardiology Congress 2022)³ trials for patients with de novo persistent AF ablation or in RILI (Comparison of Circumferential Pulmonary Vein Isolation and Complex Pulmonary Vein Isolation Additional Linear Ablation for Recurred Atrial Fibrillation After Previous Catheter Ablation: Prospective Randomized Trial)¹ for patients with repeated ablation. On the other hand, in the CONVERGE (Convergence of Epicardial and Endocardial Ablation for the Treatment of Symptomatic Persistent AF) trial,⁴ hybrid surgical POBI improved the long-term rhythm outcome of long-standing persistent AF ablation despite the higher complication risk. As mentioned by Dr Aryana and colleagues, this suggests that the currently clinically implemented catheter-based POBI technique is not perfect nor durable. In particular, an inferior posterior line has a risk of esophageal damage, and the roof line can be

reconnected by epicardial conduction through the septopulmonary bundle.⁵ We previously showed a long-term POBI reconnection rate of 54% in repeat ablation procedures because of AF recurrence despite an acute achievement of successful POBI.⁶ Recently, Kim et al⁷ reported that the long-term recurrence rate after POBI was significantly lower in patients with low atrial epicardial adipose tissue volume. This suggests the possibility that effective achievement of transmural and durable POBI can help improve persistent AF ablation outcomes. However, we must carefully consider the risk-cost benefit and whether long-term durable POBI is essential with the potential risk of complications by current catheter technology or the surgical risk of the hybrid convergent procedure. We look forward to a new energy source that can deliver POBI that is safe, less invasive, and more efficient in the future.

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TO THE EDITOR

Should SGLT2 Inhibitors Be Part of the Standard Treatment for Atrial Fibrillation in Type 2 Diabetes?



I read with interest the recent paper by Kishima et al¹ that adds intriguing data describing the impact of sodium-glucose cotransporter 2 (SGLT2) inhibitors on atrial fibrillation (AF) after catheter ablation in patients with type 2 diabetes. AF is a progressive disorder, and it frequently recurs despite catheter ablation. This study offers promising results, and SGLT2 inhibitors could help reduce AF recurrences after ablation and, ultimately, improve the prognosis for these patients.

In this study,¹ SGLT2 inhibitors had an interesting impact on parameters such as waist circumference and body mass index. It is worth mentioning that a loss of body weight of >5% after treatment with SGLT2 inhibitors has been associated with a lower risk of new-onset AF in patients with type 2 diabetes.² In addition, several studies have shown that SGLT2 inhibitors reduce epicardial fat, and this reduction is accompanied by improvements in AF.³ I wonder, what exactly is the effect of SGLT2 inhibitors on fat? Does it intervene in the short or long term? Is it a linear effect? And, most importantly, how do these things contribute to AF, and are SGLT2 inhibitors more beneficial in more obese people, or is the benefit generalized?

Despite the greater overall reduction in AF recurrences with tofogliflozin, the rate of non-paroxysmal AF recurrence¹ is worryingly high. And this is in the face of relatively widespread use of antiarrhythmic agents and the possibility of underdiagnosis in asymptomatic patients. I wonder, what is the benefit of SGLT2 inhibitors in patients with persistent AF? It would be interesting to know