Outcomes of Convergent Atrial Fibrillation Ablation with Continuous Rhythm Monitoring

The study involved 113 consecutive patients at one institution who underwent the Hybrid AF Convergent procedure. Among the patient characteristics: 88% had either persistent AF or long-standing persistent (LSP) AF; mean duration of AF before the procedure was 5.1 ± 4.6 years; 45% had undergone at least one prior catheter ablation; 31% had impaired LVEF; 62% had moderate or severe LA enlargement.

During follow-up, most patients (n = 92) had continuous rhythm monitoring. During the mean follow-up of 501 days, results were as follows.

Parameter	Finding	
AF/AT-Free Survival	53%	For any episode >30 sec at 12 months (after the 90-day blanking period) in all patients
AF/AT Mean Burden	<5%	Among patients (n=92) with continuous rhythm monitoring who had recurrences—with those very low rates remaining stable throughout follow-up
Off AADs	64%	At last follow-up

Procedural complications decreased significantly following the transition from transdiaphragmatic to subxiphoid surgical access: 23% vs 3.8% (p = 0.005). Other results included: 9% of patients had elective cardioversion outside the blanking period, and 9.7% of patients underwent repeat ablation at a mean of 229 ± 178 days post procedure.

As noted in the Discussion, the data "highlight the potential shortcomings of conventional definitions of AF ablation success which have utilized a definition of recurrence including any AF/AT episode lasting >30 seconds … [with most study results therefore showing] very modest success rates at approximately 50% to 60% at 1 year."

AF: atrial fibrillation; AT: atrial tachycardia; LVEF: left ventricular ejection fraction; LA: left atrial; AADs: anti-arrhythmic drugs

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Outcomes of Convergent Atrial Fibrillation Ablation

The authors noted that recent study results, such as those from CASTLE-AF, suggest AF burden may be more reflective of ablation efficacy than conventional freedom from recurrence. In the current study, the authors found nearly 95% of their continuously monitored patients with recurrences remained free from an arrhythmia burden >5%.

In summary, more than half of the patients were AF/AT-free, and among patients who did experience an AF recurrence, the Hybrid AF Convergent procedure was able to reduce AF burden to very low mean levels of <5%, a level which appeared consistent over time.

At time of study completion, it was noted that future trials will be necessary to best define which patients are most likely to benefit from the Convergent approach.

Reference: Larson, J., et al. (2020). Outcomes of convergent atrial fibrillation ablation with continuous rhythm monitoring. Journal of Cardiovascular Electrophysiology, 31(6): 1270-6.

EPi-Sense® Guided Coagulation System
EU Indications: *The EPi-Sense® Guided Coagulation System with VisiTrax® is intended for the coagulation of cardiac tissue using radio frequency (RF) energy during cardiac surgery for the treatment of arrhythmias including Atrial Fibrillation (AFIB) or Atrial Flutter (AFL). Contraindications include patients with Barrett's Esophagitis, left atrial thrombus, a systemic infection, active endocarditis, or a localized infection at the surgical site at the time of surgery. Reported adverse events associated with epicardial ablation procedure may include, but are not limited to, the following: pericardial effusion, excessive bleeding, Pericarditis, phrenic nerve injury, stroke/TIA/neurologic complication.*

Please review the Instructions for Use for a complete listing of contraindications, warnings,precautions and potential adverse events located at the following AtriCure web address: https://europe.atricure.com/healthcare-professionals/product-labeling

This material is intended to provide objective information about the use of AtriCure's Technology, including where and how the device can be used within the continuum of care. The enclosed publication includes information regarding patients with persistent or long-standing persistent atrial fibrillation treated with the EPi-Sense technology in a hybrid procedure. This material is being provided to demonstrate use of the EPi-Sense system in the treatment of long-standing atrial fibrillation and its clinical outcomes. This publication was chosen for this purpose because the study summarized herein utilized a trial design similar to that used in the CONVERGE IDE study which supported FDA approval of the EPi-Sense System for the indication stated above.

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