Abstract: P1006

Pulmonary vein isolation using ablation index vs CLOSE protocol with a surround flow ablation catheter.

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Introduction

Pulmonary vein isolation (PVI) using Ablation Index (AI) incorporates stability, contact force (CF), time, and power. The CLOSE protocol combines AI and =6mm interlesion distance. Safety concerns are raised about surround flow ablation catheters.

Purpose

To compare safety and effectiveness of an atrial fibrillation (AF) ablation strategy using AI vs CLOSE Protocol.

Methods

All consecutive patients referred for PVI were included after informed consent. First cluster was treated using AI and second cluster using CLOSE. All other variables remained the same: operators, general anesthesia, esophageal temperature probe, contact force and steerable sheath. Procedural data, safety and recurrence of any atrial tachycardia (AT) or AF >30 seconds were analyzed. All class 1c and III anti-arrhythmic drugs (AAD) were stopped after ablation.

Results

In total, 215 patients [AI: 121 (paroxysmal: n=97), CLOSE: n=94 (paroxysmal: n=74), similar baseline characteristics] were included. PVI was reached in all in similar procedure duration (CLOSE: 107±25min vs AI: 102±24min; p=0.1) and similar RF time (CLOSE: 36±11min vs AI: 37±8min; p=0.4) but first pass isolation was higher in CLOSE vs AI [left veins: 90% vs 80%; p<0.05 and right veins: 84% vs 73%;

Conclusion

The CLOSE protocol is more efficient then a PVI approach solely using ablation index. In this off-AAD study, 78% were free from AF/AT during a 12 months follow-up. The Smarttouch SF catheter appears to be safe using normal targets in the CLOSE protocol.