OP08-2  Characteristics of Patients with Direct Conversion of Atrial Fibrillation to Sinus Rhythm or Cavotricuspid-Isthmus Dependent Atrial Flutter by Catheter Ablation

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Background: Procedural termination of atrial fibrillation (AF) may be associated with a good long-term outcome in patients with persistent AF. 

Objective: To determine the characteristics of the patients who converted from AF to sinus rhythm (SR) or cavotricuspid-isthmus dependent atrial flutter (CTI-AFL) without transition to organized left atrial (LA) tachyarrhythmias during ablation.

Methods and Results: Thirty-two consecutive patients (26 males, 60±10 years) with AF which lasted more than 3 months when undergoing a first ablation procedure were retrospectively studied. Sixty-eight percent of the patients had AF refractory to amiodarone or bepridil. Pulmonary vein (PV) isolation was initially performed, followed by linear ablation and complex-fractionated electrogram ablation until AF termination. The mean AF duration was 6.7±6.7 months (3-33). During ablation, 26 patients (81%) converted to SR and 6 (19%) to CTI-AFL. The AF termination sites were identified around the PVs (n=21), at the LA anterior septum (n=5), mitral annulus (n=3), LA roof (n=2), and the right atrium (n=1). The mean LA diameter was 42±5mm and 84% of the patients had LA diameter<45mm.

Conclusion: The preferential AF termination site was around the PVs, followed by at the LA anterior septum. The majority of the patients with AF termination had normal to mild LA dilatation.

Keywords: atrial fibrillation, AF termination, catheter ablation