MINIMALLY INVASIVE HYBRID ABLATION PROCEDURE FOR THE TREATMENT OF PERSISTENT ATRIAL FIBRILLATION – ONE YEAR RESULTS

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Objectives. The concept of a hybrid, combined approach, to combine the most effective techniques of both surgical and endocardial catheter ablation resulted in the creation of the convergent ablation procedure. This novel pericardioscopic, hybrid approach may provide an effective option for highly symptomatic patients with persistent atrial fibrillation (PSAF) and longstanding persistent atrial fibrillation (LSPAF) for whom the standalone surgical or endocardial ablation procedures offer unsatisfactory success. The aim of this study was to assess the safety, efficacy and effectiveness of a hybrid, epicardial and endocardial RF ablation for the treatment of PSAF and LSPAF.

Method. Single-center, prospective, non-randomized clinical study. From 08.2009 to 12.2011, 27 patients with PSAF (n=5) and LSPAF (n=22) underwent HABL. Mean age of 52,52 ± 11,27, in mean EHRA class 2,5. 14 (51,8%) patients with history of electrical cardioversion (n=6) or cartheter ablation (n=8) Five pts had LVEF less than 35% Mean AF duration for all patients was 3,46 ± 2,5 years. All pts were on antiarrhythrnic drugs (AAD) and oral anticoagulation. Patients were scheduled for 3. 6 and 12 month follow-up with 7day holters, REVEAL® XT and echo measurements.

Results. The HABL procedure was feasible in all patients. At six months post procedure 72,2% (3/18) patients were in SR and 66,5% (2/18) patients were off class I/III AADs. Four patients were in AF and one patient developed right atrial flutter. At one year post procedure 80% (8/10) patients were in SR and off class I/III AADs. At 2 year post procedure 100% (6/6) patients were in SR and off class I/III AADs. Rapid change in left ventricular function was noted in patients with low LVEF (≤35%) prior to the procedure. Patients with LVEF +40% had less apparent improvement.

Conclusions. Hybrid, epicardial and endocardial RF ablation is feasible and safe, effectively restoring sinus rhythm in vast majority of patients with persistent and long-standing persistent atrial fibrillation.