Effect of CFAE Ablation on Clinical Outcome in Patients with Persistent Atrial Fibrillation Undergoing Hybrid Therapy of Ablation and Bepridil

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Introduction: The effect of complex fractionated atrial electrogram (CFAE) ablation on clinical outcome in patients with persistent atrial fibrillation (AF) undergoing hybrid therapy of ablation and short-term bepridil therapy is unknown. Methods: 52 patients (28 with persistent and 24 with long-standing persistent) were studied by serial echocardiography and 24-h ambulatory electrocardiogram at baseline and at 3-, 6-, 12-month intervals after hybrid therapy. Extensive pulmonary vein isolation (EPVI) was performed for all of the patients. CFAE ablation was performed in 22 patients guided by the electro-anatomical mapping system. All patients were treated with bepridil for three months following ablation. Results: Recurrence of AF was observed in 10 and 6 patients, which became chronic in 2 and 4, in the patients with EPVI alone and additional CFAE ablation, respectively. Compared with EPVI alone, long-term rates of sinus rhythm maintenance (relative risk, 0.75; 95% confidence interval, 0.22 to 2.51; P=NS) were not changed by additional CFAE ablation. Additional CFAE ablation did not decrease rates of degenerating into chronic AF after ablation in the patients with hybrid therapy (relative risk, 3.11; 95% confidence interval, 0.52 to 18.78; P=NS). Conclusions: Adjuvant CFAE ablation in addition to standard EPVI do not decrease the rate of recurrent AF in patients with persistent AF undergoing hybrid therapy.

Keywords: atrial fibrillation, catheter ablation, bepridil