Introduction: Pulmonary vein isolation (PVI) is an established strategy for atrial fibrillation (AF) ablation. However, it is unknown whether the effect of additional left atrial (LA) ablation affects recurrence of AF.

Methods: The study included 30 patients with persistent AF (58±10 years) treated with bepridil. Before performing PVI, bepridil therapy was attempted. Before ablation, AF had converted to sinus rhythm (SR) in all patients. It was divided into two groups. Group-1 with ablation of extensive PVI and cavotricuspid isthmus (CTI) ablation (n=16) Group-2 with ablation of extensive PVI, additional LA ablation and CTI ablation (n=14).

Result: There was no significant difference in age, gender, BMI, LA size, LVEF and CHADS2-score between both groups. At 87±51 months follow-up period, 75% of patients in Group-1 were free from sustained AF with antiarrhythmic drugs (50%) and 86% of patients in Group-2 with antiarrhythmic drugs (31%) (P=NS). A second ablation procedure was performed in 4 patients in Group-1 and 4 patients in Group-2 (29% vs. 25%; P=NS). A third ablation procedure was performed in 1 patient in Group-1 and no patient in Group-2. Major complications occurred in 1 patient in Group-1 and no patient in Group-2 (7% vs. 0%; P=NS).

Conclusion: Among patients with persistent AF with restoration of SR by bepridil, we found no reduction in the rate of recurrent AF when was performed in addition LA ablation.