Arrhythmia type after persistent atrial fibrillation ablation predicts success of the repeat procedure.

The aim of the study was to investigate whether the type of arrhythmia recurrence after ablation of persistent atrial fibrillation (AF) has an impact on the maintenance of sinus rhythm after the repeat ablation procedure. Included were 78 consecutive patients (82% men; mean age, 61±10 years; mean left atrial diameter, 47±4 mm) with persistent AF who underwent ≥1 repeat ablation. The initial ablation procedure had consisted of pulmonary vein isolation with additional substrate modification (ablation of complex fractionated atrial electrograms [n=63] or linear lesions [n=15]). Patients presented for reablation either with persistent atrial tachycardia (AT) (group 1, n=36), persistent AF (group 2, n=37), or paroxysmal AF (group 3, n=5). The primary end point was freedom from any arrhythmia off antiarrhythmic drugs 6 and 9 months after the reablation procedure. Estimated proportions of patients reaching the primary end point were 59% for group 1, 28% for group 2, and 100% for group 3 at 6 months and 51%, 23%, and 100%, for groups 1, 2, and 3, respectively, at 9 months (P=0.002). In patients presenting for a repeat procedure after ablation of persistent AF, the occurrence of AT is associated with a significantly better outcome compared with recurrent persistent AF. These results suggest that AT might be considered as a step toward sinus rhythm.