Introduction: Catheter ablation (CA) is a curative therapy for atrial fibrillation (AF), which improves QOL and reduces mortality and stroke. However, its preventive effect for recurrent stroke in AF patients with a prior history of stroke is not clear.

Methods: A total of 102 consecutive AF patients (age: 62±8 years, CHADS2 score: 2.7±0.7) with a history of prior stroke who underwent the initial CA were included (paroxysmal/persistent/long-standing; 61/32/9). The mortality and symptomatic stroke event after the CA procedure were surveyed in this population.

Result: During 4.5±2.4 years follow-up duration, 30(29%) patients required repeat CA procedures for AF recurrence, and finally 81(79%) patients maintained sinus rhythm without anti-arrhythmic drugs after 1.3±0.55 procedures. No patient died and 2(2.0%) patients experienced symptomatic stroke during the follow-up. 63(62%) patients continued oral anticoagulant therapy (OAT) including DOAC and warfarin in 46 and 17 patients, while 39(38%) patients discontinued at 3-12 months after the procedure. In 2 patients with recurrent stroke, one (CHADS2: 2) had discontinued OAT because of no evidence of AF recurrence, meanwhile the other one (CHADS2: 2) continued OAT due to AF recurrence.

Conclusion: Our data showed a low incidence of recurrent stroke after the CA in AF patients with a prior history of stroke regardless type of AF, indicating that the CA is an acceptable therapy for prevention of recurrent stroke, while more investigation will need whether OAT can be discontinued or not after the successful CA in such patients.