Introduction: Stroke rates were higher in patients who developed Atrial Fibrillation (AF) after Atrial Flutter (AFL) ablation even if it was non-documented prior the procedure. Stroke events in patients with AFL could be due to coexisting AF. However, the guidelines do not clearly address the anticoagulation plan or prophylactic AF ablation after successful AFL ablation in patients with non-documented prior AF.

Methods: We reported a case of lethal ischemic stroke after successful CTI ablation in typical AFL with non-documented prior AF.

Result: A 67 years old man came to the outpatient clinic with chief complain of fatigue and leg swelling since 4 month ago. He was hospitalized before in other hospital due to heart failure symptoms. He has a history of stroke in 2011 and diabetes. At the outpatient clinic, his physical examination revealed normal finding. Electrocardiography showed typical AFL counter clockwise (CCW) with 2:1 AV block. Echocardiography showed slightly dilatation of the left ventricle and left atrium with left ventricle ejection fraction (LVEF) 48% and mild global hypokinetic. CTI ablations were performed with bidirectional block and directly convert to sinus rhythm. Coronary angiography showed CAD 2 VD. One day after CTI ablation, this patient felt better, then discharged. Two days after the procedure, he came with altered mental status since one hour before admission and his cardiac monitor showed sinus rhythm. His brain CT showed acute ischemic at sub-cortex of the left parietal lobe. Percutaneous intra-arterial thrombolysis (PIAT) directly performed with 100.000 IU streptokinase but showed no flow in the left media cerebral artery due to high thrombus burden. Holter monitoring was performed after PIAT and showed paroxysmal atrial fibrillation. One day after, this patient died in the intensive care unit.

Conclusion: Patients with AFL who undergo successful ablation are still in a risk from embolic complications, mainly due to AF. Given the difficulties in detecting AF, oral anticoagulation or prophylactic AF ablation may be considered in high-risk patients with underlying stroke risk factors.