Recurrence of stroke after catheter ablation for AF in patient with prior stroke

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Introduction: Catheter ablation is widely used for the treatment of atrial fibrillation (AF), but it has little evidence in reducing the risk of stroke. The aim of this study was to evaluate the effect of catheter ablation on the risk reduction of stroke in patients with AF and prior stroke.

Methods: This study is a single-center, retrospective study. Among 1640 patients who underwent catheter ablation for AF from January 2009 to December 2017, a total of 105 patients who had prior stroke history were enrolled. The incidence of recurrent stroke after catheter ablation was analysed.

Result: Mean age was 66.2 ± 28.2 years and 63 (60%) were male. Average CHADS-VASc score was 3.43 points. During a mean follow up period of 3.6 years, ischemic stroke occurred in 5/105 (4.8%, 1.3% per year) patients. Among those, 4 (%) patients experienced major stroke and 1 (%) patient experienced TIA. Recent study shown that annual stroke risk is 3.2% for CHA2DS2-VASc score of 3, 4.0% for CHA2DS2-VASc score of 4. Comparing this known study, our study showed lower incidence of stroke risk.

Conclusion: In patients with AF and prior stroke, annual incidence of recurrent ischemic stroke after catheter ablation was in 1.3%. Considering that the incidence of stroke in our study was lower than those expected by CHA2DS2-VASc score, further study is need on the effect of catheter ablation to reduce risk of stroke compared to medical treatment.