

中文題目：心房重塑對於接受過心臟電燒的心房顫動病患之再發生率預測

英文題目：Atrial Remodeling Is a Reliable Predictor of Late Recurrence After Catheter Ablation of Atrial Fibrillation

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Background:

This study aimed to investigate the predictors of late recurrence (LR) of atrial tachyarrhythmia in patients with atrial fibrillation (AF) after radiofrequency ablation (RFA) and predict the risk of LR using left atrial (LA) size by echocardiography before and after RFA.

Methods:

We retrospectively included 250 patients with AF who received RFA and follow-up at least one year in Kaohsiung Chang Gung memorial hospital between 2013/1-2019/6. Patients received electrocardiogram follow-up at 1 week, 1 month, and then every 3 months after RFA. A 24-hour Holter test was performed 3-6 months after RFA. Echocardiography was performed just before and 3-6 months later after RFA. Early recurrence (ER) and LR were defined as any atrial tachyarrhythmia event occurring within and after 90-days post-RFA.

Results:

Of the 250 patients included in the analysis, 111 (44.4%) patients suffered a LR after RFA. Compared to those patients without LR, patients with LR had a higher prevalence of heart failure, coronary artery disease, and a higher CHA₂DS₂-VASc score (all $p < 0.05$). In addition, patients with LR had larger LA size and lower left ventricular ejection fraction before and after RFA (all $p < 0.05$). Multivariable analysis showed ER, persistent AF, and LA size before RFA (model 1), and ER and LA size after RFA (model 2) were independent predictors of LR (all $p < 0.05$). The area under the receiver operating characteristic curve of LA size ³ 41 mm before RFA and ³ 39 mm after RFA in predicting LR after RFA was 0.629 [95% confidence interval (CI), 0.557–0.700] and 0.647 (95% CI, 0.569–0.725) (both $p < 0.001$).

Conclusion:

Atrial remodeling in terms of LA size before and after RFA is a reliable predictor of LR after RFA.