ASSOCIATION BETWEEN QTC INTERVAL DURATION AND THE RISK OF ARRHYTHMIA RECURRENCE AFTER CATHETER ABLATION OF PAROXYSMAL ATRIAL FIBRILLATION

Poster Contributions
Poster Hall B1
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Background: An association was found between the heart rate-corrected QT (QTc) interval duration on the electrocardiogram (ECG) and risk of incident atrial fibrillation (AF) in the general population. The aim of this study was to investigate whether the QTc interval, a marker of ventricular repolarization, is associated with outcomes after catheter ablation of paroxysmal AF (PAF).

Methods: A total of 212 consecutive patients undergoing first-time catheter ablation of PAF were enrolled. Class I and III antiarrhythmic drugs were ceased for at least 2 months before ablation. All the patients underwent ECG recordings before the procedure. Preablation clinical characteristics and echocardiographic parameters were also collected.

Results: After a median follow-up period of 18 months, 100 patients had recurrent AF. A prolonged QTc predicted an increased risk of AF recurrence (hazard ratio [HR] 1.013, 95% confidence interval [CI] 1.008-1.019, p<0.001). Having a QTc interval more than the mean QTc (> 409 ms) was associated with a roughly two-fold increased risk of recurrent AF (HR 2.7, 95% CI 1.8-4.0, p<0.001), compared with the reference group (≤ 409 ms). No other baseline indexes were observed to be associated with ablation outcomes.

Conclusion: A prolonged QTc interval is associated with an increased risk of AF recurrence after catheter ablation of PAF.