

5. Impact of the COVID 19 Pandemic and Public Restrictions on Rhythm Outcomes After Catheter Ablation of Atrial Fibrillation

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Body

Background: Here we aimed to analyze changes in the outcomes of atrial fibrillation (AF) catheter ablation (AFCA) during the coronavirus disease 2019 (COVID-19) pandemic and examine the relationship between rhythm outcomes and the stringency of government social distancing measures.

Methods: We included 453 patients who underwent de novo AFCA between May 2018 and October 2019 (pre-COVID-19 era) and 601 between November 2019 and April 2021 (COVID-19 era). The primary outcome was clinical recurrence, defined as any episode of AF or atrial tachycardia lasting at least 30 seconds documented after a 3-month blanking period. A multivariable Cox regression analysis was performed to estimate the relative hazards of AF recurrence in the two eras.

Results: In the study population (24.3% women; median age, 60 years), 660 (62.6%) patients had paroxysmal AF. Among those with paroxysmal AF, the clinical recurrence rate was significantly lower in the COVID-19 era than in the pre-COVID-19 era (9.4% vs. 17.0%, respectively; adjusted hazard ratio [HR] 0.56; 95% confidence interval [CI], 0.35–0.90) during a median follow-up of 11 months. In patients with persistent AF, the clinical recurrence rate did not significantly differ between the pre-COVID-19 and COVID-19 era groups (18.9% vs. 21.5%, respectively, adjusted HR 0.84; 95% CI, 0.47–1.53) during the median follow-up of 11 months.

Conclusion: A decrease in AF recurrence after catheter ablation was observed in patients with paroxysmal AF during the COVID-19 outbreak, whereas no change was observed in those with persistent AF.

Figure 1

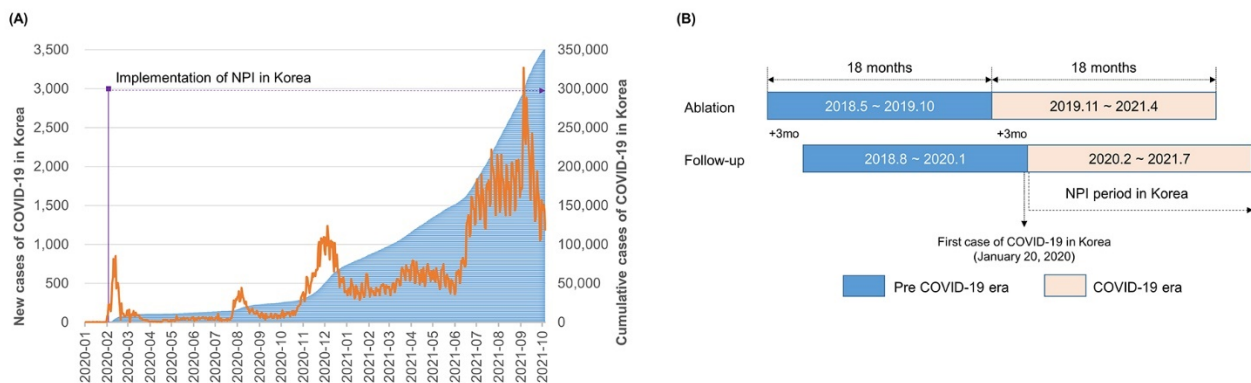
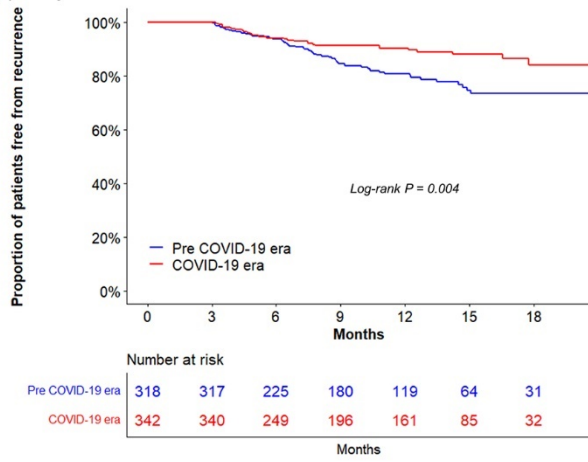
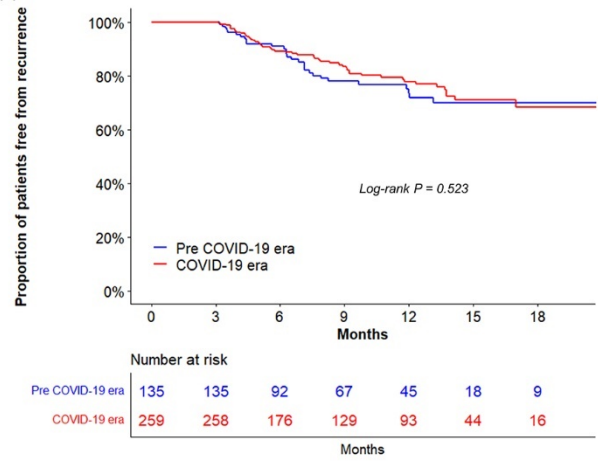


Figure 2

(A) Paroxysmal AF



(B) Persistent AF



Clinical Implications: My study will help enable cardiovascular clinicians to establish an optimal strategy of atrial fibrillation catheter ablation during the COVID-19 pandemic period.