TITLE: Prognostic significance of variant left common pulmonary vein after transcatheter pulmonary vein isolation

Name: Marton Kiss
Affiliation: Final year medical student, Semmelweis University, Budapest
Gottsegen National Cardiovascular Institute, Budapest
Country: Hungary
Email ID: martonkiss97@gmail.com

ABSTRACT

Introduction: Left common pulmonary vein is the most common anatomical variant of pulmonary veins that may affect the outcome of pulmonary vein isolation.
Objective: Our aim was to compare procedural data and outcomes in patients with common trunk *versus* normal left atrial anatomy for radiofrequency and cryoballoon catheter ablation.
Method: Data from patients who underwent pulmonary vein isolation for atrial fibrillation and had a preprocedural cardiac CT scan at our Institution between 01. 10. 2019 and 10. 03. 2022 were retrospectively evaluated. We defined a common trunk where the left superior and inferior pulmonary vein merged at least 5 mm before the left atrial ostium.
Results: From the study population (n = 210), data from 42 patients with a left common trunk (LCPV group) and 60 patients with normal left atrial anatomy (control group) were examined. No significant differences were found between the common trunk and the control group in terms of demographic data. There was no significant difference between the two groups in procedural data for radiofrequency and cryoballoon ablation (procedure time, fluoroscopy time, left atrial dwelling time, radiation dose).
After radiofrequency ablation, the success rate at 1-year follow-up was 72.0% in the common trunk group and 76.2% in the control group (p = 0.659). For cryoballoon ablation, the success rate was 64.7% and 69.2% for common trunk and normal anatomy, respectively (p = 0.641).
Conclusion: There was no significant difference in the procedural parameters and clinical outcome between patients with left common pulmonary vein and those with normal left atrial anatomy. Both radiofrequency and cryoballoon ablation techniques are well suited for this population.

BIOGRAPHY

Márton Kiss is a final year medical student at Semmelweis University. He started his research project in 2020 at the Gottsegen National Cardiovascular Institute in the field of cardiac electrophysiology. During his university years, he completed several internships abroad. He has been a regular speaker at scientific student conferences. In 2022, he was awarded 2nd place for his Rector's thesis, and his first-authored paper was published at the end of January 2023.

Presenter Name: Marton Kiss.
Mode of Presentation: Webinar.
Contact number: +36 30 481 9338