News Release

Discontinuation of Oral Anticoagulation After Successful Atrial Fibrillation Ablation: Optimizing Anticoagulant Therapy Based on Individual Patient Characteristics

Key Points

•There is no consensus on whether anticoagulant therapy can be safely discontinued after catheter ablation for atrial fibrillation.

• Although anticoagulant therapy helps prevent embolic events caused by atrial fibrillation, it also poses a significant risk of severe bleeding.

• Our research group conducted a stratified evaluation using various analytical models to determine the safety and effectiveness of continuing or discontinuing anticoagulants after successful catheter ablation for atrial fibrillation. We identified specific patient characteristics and conditions that support the safe discontinuation or continuation of anticoagulant therapy.

Summary

A research group led by a Research Student Tomoya Iwawaki, Lecturer Satoshi Yanagisawa, Associate Professor Yasuya Inden, and Professor Toyoaki Murohara from the Department of Cardiology, Nagoya University Graduate School of Medicine, Japan, has gained significant insights into the feasibility of discontinuing anticoagulant therapy following successful catheter ablation for atrial fibrillation in a large-scale retrospective study involving 1,821 patients.

The study evaluated the risks of discontinuing versus continuing anticoagulant therapy in patients who experienced no recurrence or complications for 12 months following their initial catheter ablation treatment for atrial fibrillation. The results demonstrated that discontinuing anticoagulant therapy increased the risk of thromboembolism, whereas continuing therapy was associated with a higher risk of major bleeding. Notably, patients with asymptomatic atrial fibrillation, an enlarged left atrial diameter, and reduced left ventricular ejection fraction faced a higher thromboembolic risk upon discontinuation. Conversely, patients with a high bleeding risk (HAS-BLED score ≥ 2) appeared to benefit from therapy discontinuation.

These findings underscore the need to consider not only classical thrombotic risk scores but also individual patient characteristics and detailed cardiac function when deciding whether to continue or discontinue anticoagulant therapy. This study highlights the importance of personalized anticoagulant treatment strategies to optimize patient outcomes and improve prognosis.

By emphasizing personalized anticoagulant management, this study expands treatment options for patients with atrial fibrillation and paves the way for safer and more effective care. The findings are also expected to contribute to improving the quality of life of patients after atrial fibrillation treatment.
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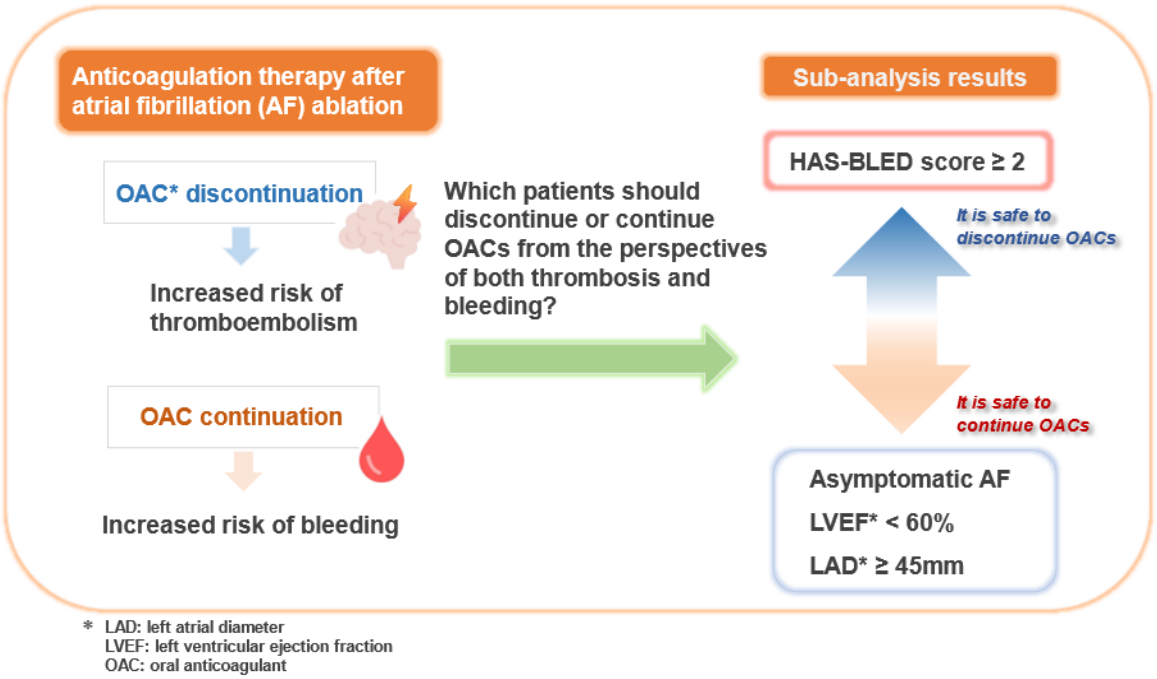
Research Background

Catheter ablation is widely recognized as a highly effective treatment for suppressing atrial fibrillation, with technological advancements further enhancing its safety and efficacy. However, the risk of recurrence remains following the procedure, and continued anticoagulant use is recommended for patients at high risk of thromboembolism. However, the unwarranted continuation of anticoagulants may increase the risk of bleeding. Therefore, deciding whether to continue anticoagulant therapy after the procedure requires a careful assessment of the balance between thromboembolic and bleeding risks. Nevertheless, no clear consensus exists on whether anticoagulant therapy can be safely discontinued following catheter ablation for atrial fibrillation.

Research Results

This study retrospectively evaluated the risks and benefits of discontinuing versus continuing oral anticoagulants after successful catheter ablation for atrial fibrillation in patients without recurrence or complications for 12 months, using a large-scale database involving 1,821 patients. Thromboembolic and major bleeding events and all-cause death occurring over one year after ablation were assessed in the landmark analysis at 12 months using various statistical analyses, following an adjustment for baseline characteristics between the two groups. Discontinuing anticoagulants increased the risk of thromboembolic events, whereas continuing therapy was associated with an increased risk of bleeding. Notably, patients with asymptomatic atrial fibrillation, reduced left ventricular ejection fraction, and left atrial enlargement faced a significantly increased risk of thrombosis upon discontinuation. In contrast, patients with a high bleeding risk (HAS-BLED score ≥2) appeared to benefit from discontinuing therapy.



Research Summary and Future Perspectives

Catheter ablation is an effective treatment for suppressing atrial fibrillation, potentially reducing the risk of thromboembolic events and facilitating the discontinuation of anticoagulants. However, given that some patients experience recurrence of atrial fibrillation after the procedure, it does not provide a definitive solution from a long-term follow-up and prognosis perspective. Future advancements in ablation technology and device systems will further enhance the safety and effectiveness of treatment options. Furthermore, optimizing anticoagulant therapy based on the individual patient characteristics, as demonstrated in this study, is expected to provide a safer and more appropriate approach to patient care.

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