

Heart failure patients fare better with catheter ablation than Amiodarone

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Among patients with heart failure and atrial fibrillation, those who underwent catheter ablation were less likely to die, be hospitalized or have recurrent atrial fibrillation than patients taking a heart rhythm regulating drug, according to a study presented at the American College of Cardiology's 64th Annual Scientific Session.

Catheter ablation was most successful in procedures where ablation was required in other areas in addition to the pulmonary vein, researchers said.

Heart failure and [atrial fibrillation](#) often co-occur and are two of the most common heart problems in older adults. In the new study, 71 percent of patients treated with a surgical procedure called catheter ablation were free of atrial fibrillation, the study's primary endpoint, after two years of follow-up, while only 34 percent of patients who took the antiarrhythmic drug Amiodarone were free of symptoms at that point.

"Even when it is effective, Amiodarone often needs to be discontinued after a while due to serious long-term side effects," said Luigi Di Biase, M.D., Ph.D., a cardiologist and electrophysiologist at St. David's Medical Center and the Albert Einstein College of Medicine at Montefiore Hospital and the study's lead author. "Our study suggests that in patients with [heart failure](#) and atrial fibrillation, catheter ablation is an effective alternative treatment that can help patients avoid or discontinue this drug to reduce the risk of these long-term side effects."

About five million Americans have heart failure, a condition in which the heart cannot pump enough blood to meet the body's needs. An estimated 5.6 million U.S. adults have the [abnormal heart rhythm](#) known as atrial fibrillation, also called Afib. Patients with both conditions are at especially high risk of serious complications and death. Amiodarone helps to regulate the heart's rhythm in these patients by relaxing the heart muscle.

"It is very important to control persistent atrial fibrillation in patients with heart failure," Di Biase said. "These patients need every bit of blood that the heart can pump, so it becomes particularly dangerous when an arrhythmia happens. People with both of these conditions frequently wind up in the hospital."

The study included just over 200 patients treated in eight European and U.S. hospitals. All patients had heart failure, atrial fibrillation and either an implantable cardioverter defibrillator (ICD) or cardiac resynchronization therapy with defibrillator (CRT-D), two medical devices that are commonly placed in patients with these conditions to control life-threatening arrhythmias or help the heart pump blood more effectively.

The researchers randomly assigned half of the patients to undergo catheter ablation, a surgical procedure in which doctors thread thin, flexible wires into the heart through blood vessels in the arm, groin or neck. These wires are used to deliver energy or heat that destroys the areas of heart tissue that cause the abnormal [heart](#) rhythm. The rest of the patients were treated with Amiodarone.

In addition to having a higher rate of freedom from atrial fibrillation, participants who underwent catheter ablation also had lower rates of hospitalization and mortality during the two-year follow up. Thirty-one percent of patients receiving ablation were subsequently hospitalized

compared to 57 percent of patients taking Amiodarone. Eight percent of patients receiving ablation died during the course of the study compared to 18 percent of patients taking Amiodarone.

Di Biase said the type and extent of the ablation procedure had a marked impact on the procedure's success rate.

"If the ablation is limited to the pulmonary vein alone, the success rate goes down—almost to the level of the Amiodarone treatment," Di Biase said. "The highest success rates were for procedures in which other areas (in addition to the pulmonary vein) were ablated."

The specific areas that benefit from additional ablation depend on each patient's individual condition. In addition, many [patients](#) in the study required more than one ablation procedure to achieve freedom from atrial fibrillation.

Di Biase said another limitation of the study is that not all hospitals have the experience and equipment necessary to properly perform [catheter ablation](#). As a result, the advantage of ablation over Amiodarone might not be as dramatic outside of top-tier hospitals. Further research would help to track the procedure's effectiveness in a broader variety of circumstances.

Provided by American College of Cardiology

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