

Study examines use of electrical energy for treating certain type of atrial fibrillation

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Among patients with untreated paroxysmal (intermittent) atrial fibrillation (AF), treatment with electrical energy (radiofrequency ablation) resulted in a lower rate of abnormal atrial rhythms and episodes of AF, according to a study in the February 19 issue of *JAMA*.

Atrial fibrillation affects approximately 5 million people worldwide and is associated with an increased risk of stroke. Drug treatment is recommended by practice guidelines as a first-line therapy in [patients](#) with paroxysmal AF. "Radiofrequency ablation is an accepted therapy in patients for whom [antiarrhythmic drugs](#) have failed; however, its role as a first-line therapy needs further investigation," according to background information in the article.

Carlos A. Morillo, M.D., F.R.C.P.C., of McMaster University, Hamilton, Canada, and colleagues compared ablation to [drug treatment](#) as first-line therapy in patients with paroxysmal AF who had not previously received treatment. The trial included 127 patients at 16 centers in Europe and North America; 61 patients received antiarrhythmic drug treatment and 66 [radiofrequency ablation](#).

Recurrence of an atrial tachyarrhythmia lasting longer than 30 seconds (the primary measured outcome) occurred more often in the antiarrhythmic drug group than in the ablation group, 44 patients (72 percent) vs. 36 patients (55 percent). Asymptomatic AF was also observed more frequently with drug treatment, 11 patients (18 percent) compared with 6 patients (9 percent). Symptomatic recurrence of

abnormal rhythm was more common with drug treatment, 36 patients (59 percent) in the antiarrhythmic drug group compared with 31 patients (47 percent) in the ablation group.

Quality of life was improved overall by both treatments but not significantly different between groups. No deaths or strokes were reported in either group; 4 cases of cardiac tamponade (the accumulation of a large amount of fluid [usually blood] near the heart that interferes with its performance) were reported in the ablation group.

The authors conclude that recurrence of an atrial tachyarrhythmia was frequent in both groups, and that when offering ablation as a therapeutic option to patients with paroxysmal AF who have not previously received antiarrhythmic drugs, the risks and benefits need to be discussed and treatment strategy individually recommended.

Hugh Calkins, M.D., of Johns Hopkins Hospital, Baltimore, Md., comments on the findings of this study in an accompanying editorial.

"Morillo and colleagues have made an important contribution in defining the safety, efficacy, and clinical role of [catheter ablation](#) of AF in treating symptomatic patients with paroxysmal AF. Their trial not only provides new and important information concerning the efficacy of AF ablation but also serves as another reminder of the potential complications of invasive therapies such as AF [ablation](#)."

More information: [DOI: 10.1001/jama.2014.467](https://doi.org/10.1001/jama.2014.467)
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