

MEDICAL BREAKTHROUGHS

RESEARCH SUMMARY

TOPIC: FREEZING: BETTER THAN MEDS FOR AF?
REPORT: MB #4840

BACKGROUND: Currently, there are at least 2.7 million Americans living with atrial fibrillation. Atrial fibrillation, also known as AFib or AF, is a quivering or irregular heartbeat called an arrhythmia. AF can lead to blood clots, stroke, heart failure and other cardiac complications. During a regular heartbeat, the heart contracts and relaxes allowing blood to move around the body in a normal, steady rhythm. In atrial fibrillation, there is an abnormal firing of electrical impulses causing the upper chambers of the heart, called the atria, to beat irregularly, resembling a quivering movement. This affects its ability to move blood into the ventricles. If a clot breaks off, breaks off and lodges in an artery leading to the brain, it will result in stroke. As many as 15 to 20 percent of stroke patients have AF. This clotting risk is why many AF patients are put on blood thinners.

(Source: <https://www.heart.org/en/health-topics/atrial-fibrillation/what-is-atrial-fibrillation-afib-or-af>)

DIAGNOSING: There are many signs of AFib, though a “quivering” or “fluttering” heartbeat is the most common. Sometimes AF patients have no symptoms, and the condition can only be detected by physical exam. Other symptoms include general fatigue, rapid heartrate, thumping in chest, dizziness, shortness of breath and anxiety, weakness, faintness or confusion, fatigue when exercising, sweating, and chest pain or pressure. There are a few different types of AFib and all have similar symptoms. However, the duration of the AFib can help doctors classify underlying problems. Paroxysmal Fibrillation is when the heartbeat returns to a normal rhythm on it's own with no intervention with seven days. People with this type of AFib may only have symptoms a few times a year or they can have them everyday. Persistent AFib is an irregular rhythm that lasts longer than seven days and will not return to normal sinus rhythm on its own and requires treatment. Long-standing AFib occurs when the heartbeat is consistently irregular for longer than 12 months. Permanent AFib occurs when the condition lasts indefinitely and both doctors and patients have stopped intervention methods to restore normal rhythm. And nonvalvular AFib is AF that is not caused by a heart valve issue.

(Source: <https://www.heart.org/en/health-topics/atrial-fibrillation/what-are-the-symptoms-of-atrial-fibrillation-afib-or-af>)

NEW TECHNOLOGY: Medication is the standard-of-care for all treatment intervention methods for all forms of AF. Paroxysmal AFib is typically first treated with anti-arrhythmic drugs, but now, researchers have found that due to improvements in the safety and efficacy of a catheter ablation procedure, they may now be more effective than medications as the first treatment for intermittent AF. The STOP AF FIRST trial studied 203 patients with paroxysmal AF not previously treated with medication. The patients were randomized to receive either cryoballoon catheter ablation or standard-of-care medications. In cryoballoon ablation, a catheter is inserted with an attached balloon filled with liquid nitrogen to freeze and immobilize the heart tissue that is causing the irregular heartbeat. After a year of the study, of the patients that received cryoballoon ablation, 75 percent of them were free from Afib with no further or additional treatment. In comparison to the group of patients that received standard-of-care medication, only 45 percent of patients had no signs of AFib.

(Source: <https://newsroom.clevelandclinic.org/2020/08/29/cleveland-clinic-study-shows-ablation-procedure-more-effective-than-medications-for-intermittent-atrial-fibrillation/>)

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If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at mthomas@ivanhoe.com