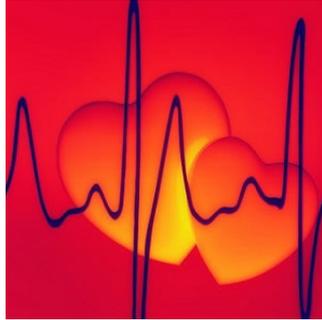


New Imaging Technique for AF Minimises Radiation Exposure



According to cardiologists from NewYork-Presbyterian and Weill Cornell Medicine, a new imaging technique should be more widely adopted by physicians to treat atrial fibrillation as it limits or eliminates patients' exposure to radiation. The article is published in Heart Rhythm.

The specialists believe that the primary obstacle to the widespread use of this technology is patient discomfort but they feel that this hurdle can be overcome with both training and experience.

Atrial fibrillation (AF) affects nearly 6.1 million Americans. The condition is usually treated through catheter ablation in which doctors insert thin, flexible wires into the patient's veins, up to their heart. They then apply radiofrequency energy or freezing temperatures to eliminate abnormal electrical pathways and restoring the regular rhythm of the heart.

Many cardiologists use fluoroscopy to visualise the heart during this procedure. But fluoroscopy exposes the care team as well as the patient to high doses of radiation.

Lead author Dr. Bruce Lerman, chief of the Division of Cardiology and director of the Cardiac Electrophysiology Laboratory at NewYork-Presbyterian/Weill Cornell Medical Center and Weill Cornell Medicine points out that the amount of fluoroscopy received during a routine AF ablation procedure is equivalent to the radiation dose of 830 x-rays. He says a large majority of patients under their care do not undergo fluoroscopy. They accomplish fluoroless catheter ablation through the use of a technology that emits high-frequency sound waves known as intracardiac echocardiography (ICE) to create a complete and precise image of the heart. In addition, this new technology helps guide the procedure. Electrophysiologists at Weill Cornell Medicine are confident that this new technique can be adopted by physicians across the country.

The concept of fluoroless catheter ablation was introduced several years ago but has not been widely adopted because most electrophysiologists still rely on x-ray imaging and are reluctant to try this new ICE explains Dr. Jim Cheung, director of clinical electrophysiology research and cardiac electrophysiology fellowship training at NewYork-Presbyterian/Weill Cornell Medical Center and associate professor of medicine at Weill Cornell Medicine. He believes that while the learning curve can be steep, the skill set can be acquired. All it requires is a modification of the current procedure in a way that it reduces radiation exposure for the patients.

"The most critical requisite for performing fluoroless catheter ablation of AF is a willingness to relinquish an old habit," said Dr. Lerman, who is also a consultant for Biosense Webster. "Doing so will have a tremendous advantage for both patients and healthcare professionals."

Source: [Weill Cornell Medicine](#)
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