

UCLA cardiologists use new methods to treat life-threatening arrhythmias

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(PhysOrg.com) -- Ventricular arrhythmias — abnormal rhythms from the lower chambers of the heart — are typically treated using a combination of medication, implanted defibrillators and catheter ablation. However, for a small subset of patients, such as those who experience a ventricular electrical storm (three or more episodes within a 24-hour period), such arrhythmias pose serious medical emergencies and require further treatment.

In a study of 14 patients with [heart disease](#), cardiologists at the UCLA [Cardiac Arrhythmia](#) Center used two newer therapies to control these life-threatening arrhythmias and found that the methods may effectively reduce signals from the central nervous system to the heart, which can control or stop the arrhythmias.

The researchers used thoracic epidural anesthesia, which is applied with a small catheter between discs in the upper [spinal cord](#) and can be used as a bridge to [catheter ablation](#) or cardiac transplant, and left cardiac sympathetic denervation, an additional treatment for select patients that involves endoscopic interruption of the nerves that come out of the spinal cord and give rise to fibers that reach the heart.

The UCLA cardiologists found that the procedures were well tolerated and may provide a new approach in arrhythmia treatment by helping modulate the [central nervous system](#).

Thoracic epidural anesthesia and left cardiac sympathetic denervation

may help control or stop ventricular arrhythmias when further treatment is needed. Ventricular arrhythmias are thought to be responsible for 250,000 deaths a year in the United States.

Researchers say the next step is further evaluation in randomized clinical trials. A large study is currently being led by the team at UCLA, in collaboration with researchers at the Mayo Clinic and centers in Italy and India.

The research appears in the June 1 edition of *Circulation*, the journal of the American Heart Association.

Provided by University of California Los Angeles

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