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New hope for heart failure patients

Cardiac resynchronization helps patient feel '100 percent better'

MAYWOOD, Ill. -- A therapy called cardiac resynchronization can significantly delay the progression of heart failure, according to a major international study published in the *New England Journal of Medicine*.

The treatment reduced the risk of serious heart failure events by 41 percent, the study found. "This shows, for the first time, that the onset of heart failure symptoms and hospitalization for heart failure can be delayed with pacing therapy," said Dr. David Wilber, a co-author of the study and director of the Cardiovascular Institute at Loyola University Chicago Stritch School of Medicine.

A device implanted in the upper chest delivers electrical impulses that help synchronize contractions of the left ventricle, the heart's main pumping chamber.

The study included 1,820 patients from 110 centers in the United States, Canada and Europe. Loyola enrolled 13 patients. All patients in the trial had been diagnosed with early stage, mild heart failure (Class 1 and Class 2 on the New York Heart Association classification system). The study's principle investigator is Dr. Arthur Moss of the University of Rochester Medical Center.

Patients were randomly assigned to two groups. A control group received an implanted defibrillator, and a second group received a defibrillator plus cardiac resynchronization. (A defibrillator is a device that shocks the heart back to a normal rhythm if the patient experiences a life-threatening irregular heartbeat.)

Compared with the control group, the cardiac resynchronization group had a significantly improved heart-pumping efficiency and a 41 percent lower risk of heart-failure events that required hospitalization or outpatient treatment with intravenous drugs.

Loyola heart failure patient Rosemary Jakubowski of Elmwood Park, Ill. said that before she received cardiac resynchronization, she had experienced significant fatigue. "I always had that dragging feeling," she said.

Since receiving cardiac resynchronization, Jakubowski has been taking kickboxing and swim aerobics classes, without fatigue. "I'm 100 percent better -- complete satisfaction," she said. "It's like I'm a new person."

The Food and Drug Administration has approved cardiac resynchronization for patients with Class 3 (moderate) and Class 4 (severe) heart failure. Such patients experience marked limitations in physical activity or are unable to do any physical activity at all without discomfort.

"With this study, we have shown that certain patients with early-stage, mild heart failure also can benefit from cardiac resynchronization," Wilber said.

The study was presented at the European Society of Cardiology Congress in Barcelona. It was supported by a research grant from Boston Scientific, which makes a cardiac resynchronization device. Wilber has received lecture fees and grant support from Boston Scientific.

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Based in the western suburbs of Chicago, Loyola University Health System is a quaternary care system with a 61-acre main medical center campus, the 36-acre Gottlieb Memorial Hospital campus and 25 primary and specialty care facilities in Cook, Will and DuPage counties. The medical center campus is conveniently located in Maywood, 13 miles west of the Chicago Loop and 8 miles east of Oak Brook, Ill. The heart of the medical center campus, Loyola University Hospital, is a 570-licensed bed facility. It houses a Level 1 Trauma Center, a Burn Center and the Ronald McDonald® Children's Hospital of Loyola University Medical Center. Also on campus are the Cardinal Bernardin Cancer Center, Loyola Outpatient Center, Center for Heart & Vascular Medicine and Loyola Oral Health Center as well as the LUC Stritch School of Medicine, the LUC Marcella Niehoff School of Nursing and the Loyola Center for Health & Fitness. Loyola's Gottlieb campus in Melrose Park includes the 250-bed community hospital, the Gottlieb Center for Fitness Center and the Marjorie G. Weinberg Cancer Care Center.
