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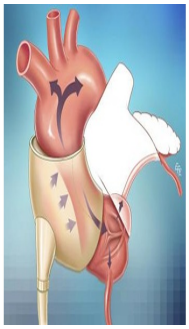
C-Pulse Could Reverse Heart Failure



In a new clinical trial, a novel, implantable heart device has been proven effective in reversing heart failure. The C-Pulse, developed by Sunshine Heart Inc., is a cuff that wraps around the aorta and pumps blood from the heart throughout the body. It stays outside of the patient's bloodstream and is attached to a small balloon that inflates and deflates in sync with the patient's heartbeat. The blood is pumped through the aorta and around the body.

The findings from the trial have been published in the *Journal of the American College of Cardiology (ACC) Heart Failure* . The study was conducted by Dr. William Abraham of the Ohio State University Wexner Medical Center.

Nearly 5.1 million people in the US suffer from heart failure. Currently, there is no cure for it and its symptoms can only be managed through medications. According to Dr. Abraham, "The optimal drug therapies we have today often aren't enough to manage this disease for some patients so we are always looking for new types of therapies."

During the study, Dr. Abraham and his team implanted the C-Pulse device in twenty patients with either functional Class II or ambulatory functional Class IV heart failure. The C-Pulse is implanted via a mini-thoracotomy or a complete sternotomy; the procedure can be completed within one hour.

The study patients were assessed after six months and at one year after device implantation. Sixteen of the twenty patients showed significant improvement in symptoms at both points in time. Three of the patients had mild or no symptoms of heart failure one year after implantation and went down from Class III or IV down to a functional Class I.

In addition, these patients were able to walk an average of 100 feet further than they could prior to device implantation. Their quality of life scores also improved by almost thirty points. "Drug and device therapies that are currently available for heart failure improve that same quality of life score by only five or 10 points," Dr. Abraham explains. "So, this is truly a significant improvement."

It is important to note however that there was a common side effect that occurred in eight out of the twenty patients: infection of the device exit site. The researchers suggest that this side effect could be reduced in future trials by simply following stricter guidelines with respect to the management of the exit site as well as through better wound care and antibiotic therapy.

Source: Medical News Today

Image Credit: Sunshine Heart Inc.

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