A New Device Provides A Second Chance

Cheryl Windless—a 33-year-old single mom from Roslyn, New York—thought she had a simple flu infection that a trip to the emergency room would treat.

Instead, Ms. Windless, who had no prior history of heart disease, was in severe cardiogenic shock and multiorgan failure. She was transferred to Mount Sinai for further care and seen by Jill Kalman, MD, Director of the Cardiomyopathy Program, who recommended immediate surgery.

“She was literally dead, with very little blood circulating,” says Anelechi Anyanwu, MD, Associate Professor, Department of Cardiothoracic Surgery. “We gave her a 10 percent chance of survival—in fact, she had already been declined by another center because they thought she could not be saved.”

Ms. Windless was the first patient to receive the HeartMate II device, approved by the Food and Drug Administration in April, at Mount Sinai. To date, Dr. Anyanwu and colleagues have implanted six such devices at Mount Sinai, one of five regional hospitals using the HeartMate II LVAD. The device helps the left ventricle (the main pumping chamber of the heart) deliver blood to the rest of the body. Dr. Anyanwu is one of the few physicians trained to implant this new technology.

LVADs are implanted in the abdomen. The current, palm-size device replaces an older, bulkier version which was five times larger, enabling petite and slim patients, especially women, to undergo the procedure. “The availability of the new-generation devices like HeartMate II means all adults now have access to this therapy, unlike before when LVADs were too bulky and used predominantly in large male patients. This LVAD option would not have been available to Ms. Windless a year ago,” says Dr. Anyanwu.

According to its manufacturer, Thoratec, the device was developed to provide up to a decade of circulatory support for a broad range of advanced heart failure patients. About 5 million people in the United States have heart failure, which contributes to 300,000 deaths each year.

Currently, HeartMate II is approved for use in patients awaiting heart transplantation in order to keep them alive until a donor can be found. That is why LVADs are called a “bridge to transplant,” explains Dr. Anyanwu. In the future, he adds, HeartMate II may be used as a permanent heart replacement in patients who cannot have transplants. “Recovery is much faster and the results of surgery much better.”

“I can’t believe how I recovered and how I feel,” says Ms. Windless, who is now looking forward to the future and thinking about a new career in medical billing. “I thank God for the surgery and for the doctors and nurses at Mount Sinai. They are so wonderful.”