First in the state for robotic heart treatment

Procedure treats patients with abnormal heart rhythms

New technology at St. Luke's is allowing doctors to improve treatment for patients suffering from abnormal heart rhythms.

Arrhythmias, or electrical problems of the heart, affect millions of people each year.

One of those electrical problems is called atrial fibrillation (AF). According to the Centers for Disease Control (CDC), AF is the most common sustained heart rhythm disorder in the United States. It increases the risk for heart disease and stroke, both leading causes of death in the U.S. An estimated two million adults have been diagnosed with atrial fibrillation.

AF is a complex arrhythmia in which the upper chambers of the heart beat rapidly and never adequately fill the lower chambers with blood. This results in inadequate blood flow to the body and may lead to stroke as the blood left in the upper heart chambers pools and forms clots that can dislodge and travel to the brain. According to the American College of Cardiology (ACC) approximately 75,000 strokes occur each year as a result of AF and these numbers continue to escalate as the population grows older.

Marvin Pospisil is able to maintain an active role in his church after a procedure with the Sensei Robot corrected his abnormal heart rhythm.

In July, St. Luke's acquired the Hansen Sensei Robotic Catheter System, which allows doctors to treat heart rhythm disorders, like AF, with greater precision.

This is good news for Marvin Pospisil, 73, who was recently diagnosed with atrial fibrillation.

"I just wasn't feeling good for the past couple of years," said Pospisil. "I thought it was because I was getting older. But my doctor told me my heart wasn't operating properly. He told me about a procedure he could perform, which would get me back to feeling like my old self."

Precise movements

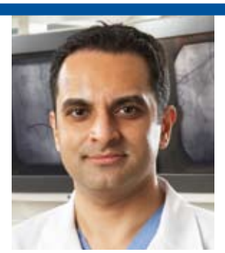
"The procedure is called ablation," said Mohit Chawla, MD, Cardiologists, P.C. "I told Marvin that I would use new technology available at St. Luke's to perform the ablation, which would correct his problem. The Sensei Robot helps map the heart and acts as a guide to find the spot where the abnormal heart rhythm is coming from. When I find the problem area, energy is used to disrupt those circuits and correct the problem. The robotic arm gives me more control and accuracy over the catheter, which is inserted into the patient's veins to target areas in the heart."

"This navigational robotic arm allows more precise movement and localization of the catheter," said Todd Langager, MD, Cardiologists, P.C. and medical director of St. Luke's Electrophysiology (EP) Lab. "It improves the catheter stability and in time it should shorten the procedure length, which is beneficial to the patient."

The Sensei robot is not performing the procedure; the doctor is manipulating the catheter with a joystick from a remote work station.

The Hansen Sensei Robotic Catheter System gained U.S. Food and Drug Administration (FDA) approval in May 2007. Manufactured by Hansen Medical in California, the device is a relative of sorts to the da Vinci surgical robot, which is manufactured by Intuitive Surgical. St. Luke's has two da Vinci robots, which are used in a variety of urological and gynecological surgeries.

Todd Langager, MD
medical director, St. Luke's EP Lab
Cardiologists, P.C.



Mohit Chawla, MD
Cardiologists, P.C.

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Technology for today

"St. Luke's is the only hospital in the state with this technology," said Dr. Langager. "It is state-of-the-art. We are particularly proud here at St. Luke's that we are the first in Iowa to use the Hansen Sensei Robot."

In fact, only 40 hospitals in the world have this technology. In the Midwest, the closest hospitals with the Sensei Robot are in Chicago and Milwaukee.

"Eventually more hospitals will acquire this technology because it's the future," said Dr. Chawla. "Having the Sensei Robot is a big deal for Cedar Rapids. It's going to offer patients a procedure with accuracy that they can't find anywhere else in the state."

"It is pretty nice that we have this advanced technology in Cedar Rapids," said Pospisil. "It's definitely minimally invasive. The day after I had the procedure I wanted to take a walk because I felt so good. It was the best I had felt in years. I was only in a private hospital room overnight."

Just four days after his procedure, Pospisil was able to do something he hadn't done in a couple of years – go to the gym and work out.

"I took it nice and slow," said Pospisil. "I really missed it. But now I think I'll be able to go to the gym on a regular basis again. I'll also have more energy for doing other things I enjoy like helping out at my church."

To learn more about the Hansen Sensei Robot at St. Luke's log on to stlukescr.org.