New Innovations are the Heartbeat of TAVR

Medical technology is constantly evolving and improving. Over the past decade, one of the most notable innovations in interventional cardiology and structural heart procedures has been the emergence of transcatheter aortic valve replacement, or TAVR.

TAVR allows patients suffering from aortic stenosis (narrowing of the aortic valve opening) to receive a new aortic heart valve, typically without a surgical incision. This is a repair that previously required an open heart procedure, and wasn't even an option for some patients who were considered too sick for major surgery.

Now these patients are getting the valves they need through TAVR. The procedure delivers a balloon expandable aortic heart valve via catheter, replacing the diseased valve while the heart continues to beat – avoiding the need to stop the patient's heart.

OSF HealthCare offers TAVR at three of its Illinois facilities: in Peoria at OSF Saint Francis Medical Center, in Rockford at OSF Saint Anthony Medical Center, and most recently in Urbana at OSF Heart of Mary Medical Center.

The OSF Cardiovascular Institute TAVR team in Peoria has been offering the procedure for ten years now, and has adapted new innovations along the way. The most recent is a new version of the heart valve implant that early studies show better resists calcification and valve deterioration post-implant. Dr. Sudhir (sue-DEER) Mungee (MOON-gee) is the director of the structural heart program for OSF HealthCare.

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Dr. Sudhir Mungee, Director, Structural Heart Program, OSF HealthCare
"This new technology was FDA approved in September and sure enough, we were the first, not only the state of Illinois, but I think Illinois, Wisconsin, Kansas, in this entire region, we were the first to adapt this technology. We treated our patients since then, and every patient now of ours is getting the most advanced TAVR valve." (:26)

While the new valve, called the SAPIEN 3 Ultra RESILIA Transcatheter Heart Valve, is currently only available at OSF Saint Francis Medical Center, Dr. Mungee is confident the TAVR teams at OSF Saint Anthony and OSF Heart of Mary will soon adapt the technology as well.

What makes this valve different is a new anti-calcification tissue treatment that, according to the manufacturer, prevents structural valve deterioration at five years post-implant. This provides the potential to extend the durability of the valve. Dr. Mungee says he is optimistic this new technology will be a great benefit for patients, and looks forward to watching the progress of his patients.

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Dr. Sudhir Mungee, Director, Structural Heart Program, OSF HealthCare
"We'll have to wait for the five year data, the 10 year data, but I think as an operator, or as a consultant when we talk to the patients, we will be a little bit more confident to tell them that there is a likelihood that this valve is going to last even longer than the predecessors." (:16)

The less invasive TAVR procedure also comes with a quick recovery time. Most patients will leave the hospital in an average of four days, and can resume all normal activities within 10 days of the procedure. In comparison, traditional open chest surgery patients need up to seven days of hospitalization and six weeks of rehabilitation.

Dr. Mungee says the faster recovery and immediate improvement of a patient's quality of life is nothing short of miraculous, as he reflects on the past decade of TAVR innovations.

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Dr. Sudhir Mungee, Director, Structural Heart Program, OSF HealthCare
"We used to be 20 people in the operating room and did two valves in a day. Now we do about six valves in a single day with four people in the room. Most patients go home the next day. The procedure, which used to be general anesthesia, now is done under local anesthesia. Patients can be talking to us while they're getting their heart valve replaced." (:24)

To learn more about TAVR, or to see if you are a TAVR candidate, visit OSF HealthCare's TAVR information page here.