IN THE NEWS

New surgical technique restores cardiac valve in patients with mitral valve prolapse

Dr. Gerald Lawrie, one of the world's most experienced cardiac valve surgeons, has developed a new approach to the surgical treatment for mitral valve prolapse (Barlow's syndrome), which was published in the September edition of *Annals of Thoracic Surgery*.

Lawrie's new technique involves resizing the valve and repositioning the leaflets within the left ventricle instead of removing valve leaflets, as is commonly done in patients with mitral valve prolapse.

"Using this new technique, we restore the patient's own valve, preventing the need to replace it with a mechanical valve that will require life-long blood thinner medications for the patient. The success rate has been 100 percent to date," said Lawrie, who holds the Michael E. DeBakey Endowed Chair for Cardiac Surgery at The Methodist Hospital.

This minimally invasive procedure uses the DaVinci surgical robot, which enabled Lawrie to repair the valve through three small incisions, providing his patients with faster recovery and less pain.

Robot saves patient's transplanted lung

In a first-of-its-kind procedure, physicians at the Methodist DeBakey Heart & Vascular Center used a robotic catheter to save a patient's transplanted lung.

Dr. Alan Lumsden, chair of the department of cardiovascular surgery at Methodist, and Dr. Miguel Valderrábano, chief of the division of cardiac electrophysiology, used a robotic catheter to place a stent in a patient's pulmonary artery when it became severely narrowed after his transplant, potentially damaging the new lung.

Pulmonary artery stenosis or narrowing of the pulmonary artery that carries oxygenated blood from the heart to the lungs, can occur where the transplanted lung is sewn to the patient's own pulmonary artery. Physicians use stents, mesh tubes that are used to prop open clogged arteries, to restore blood flow to the lungs.

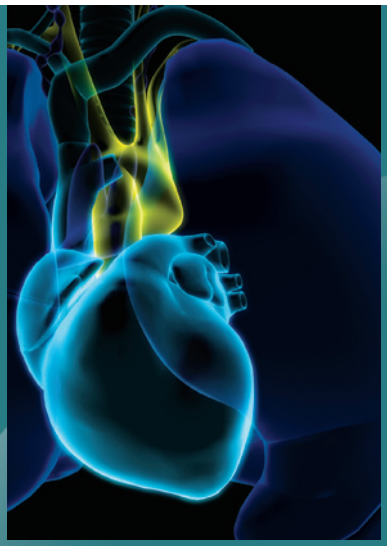
The lung transplant patient Charles Brennen was in danger of losing his new lung when physicians could not get the new stent in his artery because it was too twisty to maneuver the stent through the catheter from the groin to the damaged pulmonary artery. Furthermore, the placement of the stent was hampered by the pulsing of the artery due to the beating heart on one end of the vessel.

"I'm hoping that the stent will get more blood flowing to my lungs so I'll have more stamina," said Brennen, an active 72-year old father of five. "I want to get back in shape, do more things."

Brennan is a retired marketing representative who spends time working on the Texas ranch that he shares with his son-in-law.

Lumsden and Valderrábano used a Sensei® robotic catheter system designed by Hansen Medical for use inside the heart to successfully reach the narrowed part of the pulmonary artery. The robot allowed the physicians to compensate for the motion of the beating heart, and place the stent safely and accurately, providing the patient's new lung with a ready flow of oxygenated blood. This was the first time in the U.S. that the robotic catheter was used outside of the heart. Valderrábano used 3D guided imaging to direct the robotic catheter to precisely the right spot to place the stent. With successful implantation of the stent, the patient avoided being placed again on the lung transplant list.

IN THE NEWS



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