

Medica Superspecialty Hospital treats a patient by TAVR

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Patients who are scared of open heart surgery for aortic valve operation they may choose TAVR



A 76-year old patient with past history of heavy smoking, was admitted with shortness of breath on exertion and chest pain in a city-based private hospital.

Echocardiogram revealed severe obstruction of the main valve of his heart, aortic valve. With all his comorbidities, like lung disease, advanced age. Patient belonged to intermediate to high risk category for open heart surgery for replacement of the heart valve. At the same time he was not at all ready to undergo heart valve surgery under general anaesthesia with a cut open of his chest wall.

Alternative option in such situation was valve replacement through small puncture in his groin artery and taking the valve with the help of a catheter. This is a new procedure which has been established in such patients yielding good results. It is known as TAVR. Patients who are scared of open heart surgery for aortic valve operation they may choose TAVR. The patient and his family consulted the Medica Heart Team doctors comprising Interventional Cardiologists, Anaesthetists and Cardiac Surgeons.

Dr Dilip Kumar, Consultant Interventional Cardiologist, Prof. (Dr.) Rabin Chakraborty, Senior Vice-Chairman, Cardiology Services, Cardiac Surgeon Dr. Kunal Sarkar, Senior Vice-Chairman, Medica Superspecialty Hospital met the patient together and on clinical evaluation; suggested a TAVR procedure considering all the aspects. The entire procedure was very clearly explained to the patient and his relatives. The highly skilled and experienced heart team Medica Hospital was confident to perform this procedure.

Transcatheter aortic valve replacement (TAVR) is a minimally invasive procedure which repairs the valve without removing the old, damaged valve. The surgery may also be called Transcatheter aortic valve implantation (TAVI).

“Upon admission, he complained of shortness of breath and palpitation,” said the team of doctors. TAVR was carried out on April 4. The access to the procedure was done through femoral puncture under protection of Proglide system which takes care of the puncture site after the procedure is over. “The entire valve system was taken over a stiff wire from the femoral artery to the Left Ventricle,” said the doctors.

Usually valve replacement requires an open heart procedure with a sternotomy in which the chest is surgically opened. The TAVR procedure can be done through a very small puncture at groin. Patients can be discharged in 48 hours after the procedure and resume his normal routine. “This case was not technically challenging but it required a lot of planning and

involvement of a multi-disciplinary team," said Dr. Dilip Kumar.

Management of this type of heart issue is generally done by surgical correction, open heart surgery. But non-surgical intervention is being practised as a safe alternative in India in the last two years, too. "TAVR can be an effective option to improve quality of life in patients who otherwise have limited choice to repair their aortic valve. Risks of open heart surgery like prolonged general anaesthesia, ventilator, long ICU stay, infection can be significantly minimised in TAVR patients", explained Dr. Chakraborty.

"Keeping in mind the patient-centered treatment plans, we recommended TAVR to treat the structural heart disease, which is not so uncommon. There are many patients of heart valve diseases who are otherwise unfit for open heart surgery, general anaesthesia. Dr Sarkar added that today with a good skilled interventional cardiologist's team TAVR is definitely a suitable option. Heart care is definitely in the midst of a transformation," said Dr. Sarkar.

Dr. Alok Roy, Chairman, Medica Group of Hospitals said, "The doctors came to the consensus on the line of treatment, ensuring a rational approach with evidence-based medication for better outcomes. Skill, efficiency and meticulous planning were the pillars of this case. We are happy to have cured a person who had come to us all the way from Assam within such a short time. Such cases done in the East certainly puts the healthcare system in this part of the country on the forefront."

The interventional Cardiology team and the surgical team took around an hour to complete the procedure. The patient was not under general anesthesia and there was no requirement of blood transfusion. The patient recovered immediately after the procedure and became ambulatory within 48 hours.

The patient was seen after a month on a follow up visit. He is doing well and leading a normal life.