

Aortic stenosis is a type of heart valve disease in which the aortic valve which is located between the left lower heart chamber and the body's main artery (aorta), gets narrowed and doesn't open fully. This reduces the blood flow from the heart to the aorta and to the rest of the body. Senior citizens are at higher risk.

What is the treatment of Aortic Stenosis?

It is treated with aortic valve replacement (AVR) either transcatheter way known as TAVR/TAVI or else by open heart surgery.

How does TAVR/ TAVI differ from open-heart surgery?

TAVR/TAVI is routinely done under local anaesthesia from a small incision in the groin there is no need for opening the chest and typically the patient can be discharged 24 to 48 hours after the procedure. They may resume their routine work after four to seven days.

Healthy & Hearty Success

A heart compromised patient got benefitted with TAVI at Yashoda Super-Speciality Hospital

If a heart valve does not open or close properly, blood flow through the heart to the body reduces. If the valve opening narrows due to calcium deposits, the heart has to work harder to force blood through smaller valve opening.

The most common reason to undergo TAVR/TAVI is if you have aortic stenosis, which is narrowing the aortic valve or area around it. The narrowing is usually due to calcium build-up on the valve and age-related wear and tear (especially if you're above 70). It can also happen because of other health conditions.

Any patient diagnosed with severe aortic stenosis that is deemed inoperable or high risk for open aortic valve replacement can be referred for TAVR/TAVI evaluation. After more than a decade of data, the durability of the valves used in TAVR/TAVI compares favourably with surgically implanted valves.



Dr Asit Khanna
Principal cardiologist,
Yashoda Hospital Ghaziabad

Who is a candidate for TAVR/TAVI?

TAVR/TAVI currently is approved by the Food and Drug Administration (FDA) for people with severe aortic stenosis who are at high or intermediate risk of complications during open heart surgery. Such patients are often older or have other medical conditions that make surgery more dangerous.

A minimally invasive procedure

TAVR/TAVI requires only a small cut in the



Treatment Zaroori Hai

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skin. It does not require open-heart surgery. The aortic valve is one of the four valves that controls blood flow in the heart. It specifically controls the blood that runs from the heart through your aorta and to the rest of the body.

Is TAVR/TAVI open heart?

TAVR/TAVI is performed by inserting a catheter through the groin to make a repair of the aortic valve. It is a far less invasive alternative to open-heart surgery. In a TAVR/TAVI procedure, the doctor can repair a diseased aortic

came to Yashoda Hospital Ghaziabad after consulting other doctors. Also, Dr Khanna had told that the patient was at a higher risk for surgery and could not even undergo surgical valve replacement which could further lead towards an increase in morbidity as well as high mortality risk for him in this case.

For this, the treatment was simply replacing the damaged aortic valve called 'Aortic Valve Replacement (AVR)'. This was earlier done via open heart surgery only; but in many patients like very elderly, with other severe co-morbidities, an open heart surgery was considered as high risk.

Dr Khanna says, "Recently, with the advancement of science, this procedure is done by catheter intervention only, without any need for open-heart surgery. This is called 'Trans-catheter Aortic Valve Implantation/Replacement' (TAVI / TAVR). TAVI has revolutionised the modern-day cardiac intervention in terms of its usefulness and has benefitted the elderly high risk patients."

A cardiac team led by Dr Khanna did TAVI successfully, using balloon expandable valve of 26 mm in this patient. Needless to say, he was discharged home within two to three days of the procedure. Now, the patient is able to work without any cardiac disorder symptoms.

Post procedure, his heart's function has improved to more than 50 per cent as confirmed by Dr Khanna, within days, and this has also helped in reducing his heart's load. The patient has confirmed that he is happy with this complex procedure done at Yashoda Hospital, a one-of-its-kind in this city. He thanked the team of cardiologists for this wonderful achievement.

This has definitely opened a ray of hope for such patients in Delhi and NCR too, added Dr Khanna.

valve without open heart surgery.

Patient's Testimony

A 65-year-old patient was admitted with recurrent fainting (loss of consciousness) and breathlessness. On evaluation, he was found to have severe aortic stenosis with a grave fall in patient EF (function compromised to 19 per cent). Dr Asit Khanna, the principal cardiologist at Yashoda Hospital Ghaziabad, says, "This was a heart disease where one of the

valves, which connected the left ventricle with aortic valve, was tightly stenosed. In simple words, the exit gate of the left side of heart was almost blocked because of which the oxygenated blood was unable to go through the major blood pipe at a required speed. When

such patients indulge into even the slightest exertion, their blood flow to the brain decreases and he/she faints, which may get fatal. Coronary arteries also get less blood flow and the patient experiences chest pain (angina) and even heart attack. The blood in the lungs gets pooled and causes breathlessness."

Other hospitals had denied treatment for the 65-year-old patient and he

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