

Aortic Stenosis (AS) is amongst the most frequently reported and most severe form of valve disorders. The aortic valve is located on the heart's left side and opens while the blood is being pumped out from the heart to the entire body. AS is a contraction of the opening of aortic valve, limiting the blood flow from the lower left chamber of the heart (left ventricle) to the main artery that carries blood away from the heart to the rest of the body (aorta). Elderly individuals are mostly affected by Aortic Stenosis due to scar tissue formation and calcium buildup in the flaps of the aortic valve and near by areas. Age-associated AS generally starts after 60 years of age, & it can be present without symptoms also until 70 or 80 years.

What are the options available for treatment of Aortic Stenosis?

The most widely known treatment option is Surgical Valve Replacement (Open Heart



Treatment Zaroori Hai

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through artery in the groin, called the trans-femoral (groin) approach of doing a TAVR.

There are several potential benefits to TAVI compared to traditional open-heart surgery:

- Minimally invasive: TAVI is a minimally invasive procedure that does not require a large incision in the chest. This can result in a shorter

recovery time and fewer complications.

- Reduced risk of complications: TAVI has a lower risk of complications compared to open-heart surgery, including a lower risk of stroke and damage to the heart muscle.

Patient's Testimony

A 63-year-old gentleman was presented with exertional breathlessness and chest uneasiness. He also had a history of coronary artery disease (CAD), previous PTCA (stenting) done in 2015. On evaluation, he was found to have severely calcific AS (Aortic Stenosis) along with double vessel blockage of coronary artery. The aortic valve of the heart plays a vital role in the movement of blood in proper direction; hence its narrowing results in disturbances, which are potentially life-threatening. The patient needed an immediate aortic valve replacement for survival; but because of risk factors, he was declared unfit for surgery.

“Patient's risk factors posed a big challenge here. Also, because narrow femoral makes it difficult to access the arteries in the groin area, which is needed to reach out to the heart, along with the risk of bleeding and problems with vascular closure, TAVI was performed through left sub-clavian access,” said Dr Kumar.

The patient was discharged after three days and all vitals were normal. “Through the use of new technology and application of expertise, it is now possible to save lives from heart disease which was unthinkable a few years back. Cardiology practices in India are setting trends worldwide, opening new indications that could help save many suffering from heart disease across the globe,” he said.

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An elderly man got successful TAVI at Max Hospital, New Delhi

Transcatheter Aortic Valve Implantation, one of the most successfully run treatments to treat heart valve disease, is routinely done under local anaesthesia from a small incision in the groin. Here's how a patient got treated with the same successfully

Surgery), it has a higher risk of complications and mortality for elderly patients with multiple co-morbidities. Approximately 40% of elderly AS patients cannot opt for the surgery as they may be too old or too frail to withstand it. For these patients, a minimally invasive, Transcatheter Aortic Valve Replacement (TAVR), is a promising alternative that can reduce mortality and restore quality of life.

What is TAVR/TAVI?

TAVR or TAVI is a minimally invasive procedure of surgery for replacing the inefficient/improperly functioning aortic valve with a brand new artificial valve. A TAVR procedure can be executed via small openings that leave all the chest bones intact, contrary to an open heart surgery where the chest is surgically detached for replacing the diseased valve. In

TAVR, with minimal invasion, a new valve is inserted & placed without removing the old, damaged one. The artificial valves for TAVR are specifically designed for implantation using a long, narrow tube known as a catheter. The catheter can be inserted

recovery time and fewer complications.

● Quicker recovery time: Since TAVI is a less invasive procedure, patients may experience a quicker recovery time. Many patients can return to their normal activities within a few weeks of the procedure.

● Suitability for high-risk patients: TAVI may be an option for patients who are considered at a high-risk for open-heart surgery due to their age or other underlying health conditions.

Overall, TAVI is a safe and effective treatment option for patients with aortic stenosis, particularly for those



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