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What is TAVR?

TAVR may be a preferred option for people who have been diagnosed with severe aortic stenosis and are at intermediate or greater risk for surgery. TAVR (sometimes called transcatheter aortic valve implantation, or TAVI) is a less-invasive procedure than open heart surgery. This procedure uses a catheter to implant a new valve within your diseased aortic valve. TAVR can be performed through multiple approaches; however, the most common approach is the transfemoral approach (through a small incision in the leg). A properly trained and dedicated, multidisciplinary Heart Team at a TAVR Center will conduct a thorough evaluation to determine the most appropriate treatment option for you.

Aortic Valve Stenosis :

A hurdle for young at Heart elderly individuals, its treatment options and glimpse of pre-and post-treatment life of such Individuals.

As we all know India is a country of young people. Average age of our population is the youngest around the globe. A majority of our senior citizens are also known to be young at heart individuals who lead their life with lot of pride, compassion and without being dependent on any one. Aortic Valve stenosis is a health condition which becomes a hurdle in their life style. It makes life difficult and even day to day activities are stopped because of breathlessness. Let us look at what is Aortic Valve Stenosis, its symptoms and treatment options in today's meeting.

What is Aortic Valve Stenosis and symptoms / difficulties related to it?

Aortic stenosis (AS or AOS) is the narrowing of the exit of the left ventricle of the heart (where the aorta begins). It may occur at the aortic valve as well as above and below this level. It typically gets worse over time. Symptoms often come on gradually with a decreased ability to exercise often occurring first. If heart failure, loss of consciousness, or heart related chest pain occurs due to AS the outcomes are worse. Loss of consciousness typically occurs with standing or exercise. Signs of heart failure include shortness of breath especially when lying down, at night, or with exercise, and swelling of the legs

Causes include being born with a bicuspid aortic valve and rheumatic fever. A bicuspid aortic valve affects about one to two percent of the population while rheumatic heart disease mostly occurring in the developing world. A normal valve, however, may also harden over the decades. Risk factors are similar to those of coronary artery disease and include smoking, high blood pressure, high cholesterol, diabetes, and being male. The aortic valve usually has three leaflets and is located between the left ventricle of the heart and the aorta. AS typically results in a heart murmur. Its severity can be divided into mild, moderate, severe, and very severe based on ultrasound of the heart findings.

Treatment Options

- 1) Moderate cases are treated by putting patients on medication
- 2) Aortic valve can be replaced surgically and this treatment is the most preferred one provided the patient is not too old and is operable.
- 3) In age old patients who are too risky for open heart or other forms of surgery Transcatheter Aortic Valve Replacement (TAVR) has emerged out as an excellent option.

Who is Eligible for TAVR?

Transcatheter aortic valve replacement (TAVR) has been validated as a new therapy for patients affected by severe symptomatic aortic stenosis who are not eligible for surgical intervention because of major contraindication or high operative risk. The safety and efficacy of prosthesis implantation depends on a proper patient selection and procedural guidance, based on a multimodality imaging approach.

Clinical Outcomes with TAVR

A recent clinical study of patients who underwent a TAVR procedure with the SAPIEN 3 valve was shown to have a 75% lower incidence of death and stroke compared to open heart surgery. TAVR may shorten recovery time to allow patients to get back to everyday activities. Patients reported quality of life improvements within 30 days including the ability to take care of themselves.