BioSpect
the business of Bi
24 years of leveraging the business of Bio
www.biospectrumindia.co

TAVR is slowly disrupting CVD treatment in India

11 May 2022 | Views

Dr Maulik Parikh, Head â?? Structural Heart Program, Sir HN Reliance Foundation Hospital, Mumbai gives an insight on how TAVR is allowing patients to live longer and with a higher quality of life



While there have been many advancements and improvements in the quality and performance of mechanical and tissue valves, none have been as transformative and disruptive as Transcatheter Aortic Valve Replacement (TAVR). For many decades, open-heart valve replacement surgery, which involves cutting open the breast bone, stopping the heart, putting the blood circulation on artificial circulation, and then replacing the valve, was the most common procedure in the field. Since it is major surgery, it carries risks such as extended ICU and hospital stays, infection, haemorrhage, stroke, kidney function abnormalities, and neurological difficulties such as memory loss.

All this changed when Dr Alain Cribier, a French cardiologist (not a surgeon), completed an aortic valve replacement treatment from the leg vein in April 2002, to avoid open-heart surgery. Thereon, the ground-breaking TAVR technology has advanced drastically in recent years to become the primary treatment option for the majority of patients with aortic valve stenosis, the most common heart valve disease among the elderly. The TAVR procedure has developed and popularised over time.

In the TAVR procedure, a tissue valve, which is sutured onto a thin but sturdy, expandable metal alloy frame, is crimped on a balloon or in a catheter (hollow-tube). This catheter with the valve is inserted from a groin artery and taken to the heart under X-ray (cath lab) guidance. The catheter is smaller than 5 to 6 millimetres and can easily go through the groin arteries. After confirming an accurate position, the TAVR valve is implanted inside the old valve. The duration of this procedure is about 1 hour and it is done under local anaesthesia. Most patients walk the same day and are discharged 48 hours after the procedure.

Aortic stenosis is a narrowing of the major left-sided heart valve, the aortic valve. Shortness of breath, chest discomfort and blackouts are frequent symptoms. It's common among the elderly. With better medical care and better social living conditions, the average life expectancy has increased, and as a result, we are seeing an increasing number of patients with aortic stenosis. Earlier, many patients with a treatable diseases like aortic valve stenosis had no treatment options because they were not candidates for open-heart surgery. The introduction of transcatheter aortic valve replacement (TAVR) has provided a treatment option for them. Hospitals that can push the frontier with cutting-edge treatments like TAVR are rare and patients seeking the most up-to-date procedures and technologies seek them out even if they have to travel cities or countries for the same.

TAVR has reached a tipping point for becoming the standard of care after several years of testing and greater clinical use. It is allowing patients to live longer and with a higher quality of life. The purpose of healthcare is to provide patients with the best possible care at the lowest feasible cost. Reducing readmissions in the treatment of heart failure guarantees that treatment is completed correctly the first time, lowering overall expenditures. Newer procedures are sometimes misunderstood as being more expensive and putting a larger strain on the healthcare system. The converse is true for TAVR programmes, which can help reduce readmissions of heart failure patients, who are the sickest and most vulnerable to lengthy medical stays.

Patients will benefit from the increased use of TAVR procedures since they are less invasive, more efficient, and less expensive. It's one of the most significant developments in cardiovascular medicine in recent years. TAVR will continue to grow, and the number of patients who can be treated will increase, as open surgical procedures are replaced by less invasive interventional tests.

This is a great example for the healthcare business to follow. Long-term strategy and collaborative planning, when combined with innovative, flexible technology, can improve patient care while also increasing the bottom line.