

TAVI: A safe procedure for heart failure patients

Recently, a 72-year-old female patient successfully underwent Transcatheter (TAVI) Aortic Valve Implantation procedure using the Cerebral Embolic Protection System (CEPS) that reduces the risk of stroke during a non-surgical aortic valve replacement procedure. The patient had undergone an open heart surgery aortic valve replacement in 2016. However, the valve had started leaking and as a result, heart efficiency had decreased. She was admitted in the hospital with heart failure.

Dr Ravinder Singh Rao, MD, DM, FACC interventional structural cardiologist and TAVI expert at Lilavati Hospital, who performed the procedure, said, "Medicines do not work for such a leaky valve. TAVI has become the standard treatment in such patients. In experienced hands, it is safer and has better outcomes compared to open heart surgery. The stroke rate with TAVI is around two per cent. Now with the usage of the brain protection device, stroke incidence during the TAVI procedure can be further decreased."

Further describing the recent procedure, Dr Ravinder said that the valve was replaced without any surgery, by growing through the groin vessel. He added, "The new valve started functioning immediately. The sentinel device is like a sieve. It is placed from the right hand artery and deployed in both the brain vessels before starting



Dr Ravinder Singh Rao



The Lilavati Hospital cath lab team and Dr Ravinder Singh Rao with the sentinel embolic protection device

the procedure. During the procedure if there is any particle that breaks from the valve, it is collected in these two baskets and does not enter the brain. After recovering the valve, the filters are retrieved and removed. The patient met her family members immediately after the procedure, spent one night in ICU and was discharged on the third day."

Dr Ravishankar (COO and cardiac surgeon, Lilavati Hospital), who was part of the operating team along with Dr Anand Rao, Dr Namrata Kothari, Dr Nitin Gokhale and Dr Ramesh Dargad, said, "This will make the complex TAVI procedure safe for our patients. This was a unique case that was performed in Mumbai and western India."

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