

Treated by TAVI in TAVI procedure in Prosthetic AV re-stenosis

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Introduction: Aortic stenosis is a valve disease that occurs commonly in old age. Aortic sclerosis is observed in approximately 30% of people who are 65 years old or older and approximately 2% of them can be diagnosed as actual aortic stenosis. Clinically meaningful symptoms are developed only when aortic orifice decreases equal to or below $0.5\text{cm}^2/\text{m}^2$. Aortic valve replacement can be considered for severe aortic stenosis, but transcatheter aortic valve implantation (TAVI) has been emerging as an important treatment for the inoperable or high surgery-risk group. The author treated the recurrence of aortic valve re-stenosis using TAVI in TAVI after conducting a TAVI procedure for severe aortic valve stenosis.

Case: An 84-year-old woman had been admitted to the hospital due to dyspnea aggravation for ten days. The patient underwent proximal LAD stent three years ago due to unstable angina and received TAVI procedure because of severe aortic stenosis ten years ago in addition to the medical history of HTN and DM. At the time of outpatient visit, normal sinus rhythm and LVH rhythm were observed on the EKG. Moreover, mild cardiomegaly accompanied by bilateral pleural effusion and pulmonary congestion was observed on the chest X-ray with. Bioprosthetic AV restenosis and low-flow low-gradient severe AS (MSPG=26mmHg, AVA= $0.76\text{cm}^2/\text{m}^2$) were found on echocardiogram. It was determined to conduct the TAVI in TAVI procedure for the patient because she had Euroscore II of 8.45% and an STS score of 15.6%. TAVI in TAVI (Evolute PRO 26mm, previous-valve: Sapien 23) was performed successfully through both femoral artery entry. The results of echocardiogram, conducted immediately after the procedure, revealed that MSPG was reduced to 21 mmHg and she was discharged without complications. She has been followed up in the outpatient department without the occurrence of dyspnea.

Discussion: This study reports a treatment case using TAVI in TAVI for a patient with restenosis, which occurred after the TAVI procedure due to severe aortic valve stenosis.

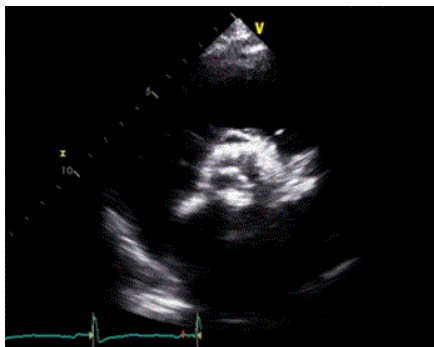


Figure 1A. Severe aortic stenosis

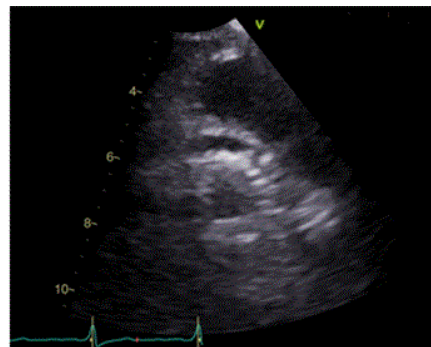


Figure 1B. Aortic valve after procedure

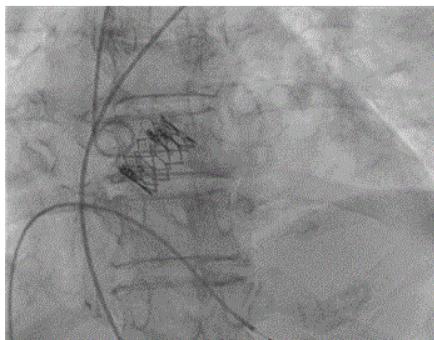


Figure 2A. Prosthetic AV previous TAVI



Figure 2B. Successful TAVI in TAVI procedure