STRUCTURAL - AORTIC VALVE INTERVENTION - VALVE IN VALVE TAVR (TCTAP C-212)

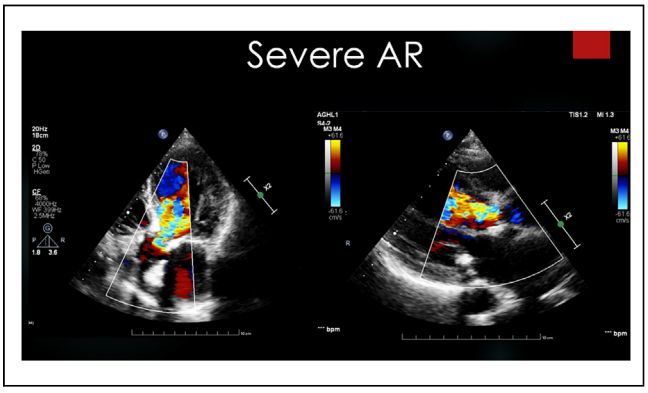
TCTAP C-212

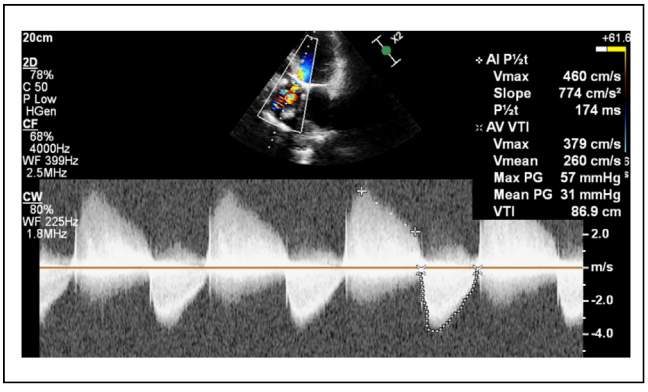
Valve-In-Valve TAVR in a Patient of Degenerated Trifecta-21 With Severe Aortic Regurgitation and History of Implantation of AAA Stent Graft for Abdominal Aortic Aneurysm

Debdatta Bhattacharyya,[1] Manik Chopra,[2] Snehil Goswami[3]
[1]R N Tagore Hospital Mukundapur, India; [2]NH-Rabindranath Tagore International Institute of Cardiac Sciences, India; [3]NH MMI Hospital, India

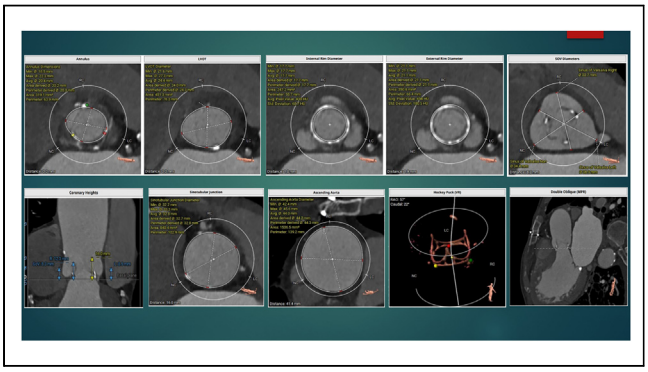
CLINICAL INFORMATION

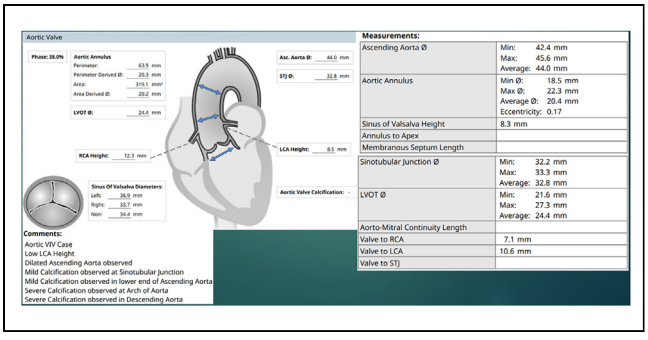
Relevant Clinical History and Physical Exam. A 77-year-old gentleman presented with severe shortness of breath (NYHA III) with recent history of recurrent hospital admissions (3 episodes) with heart failure. On examination, he was average built, conscious co-operative with bounding regular pulse and a wide pulse pressure (BP: 126/40mmHg). His cardiovascular examination revealed a high pitched decrescendo diastolic murmur. Chest examination did not have any significant findings.

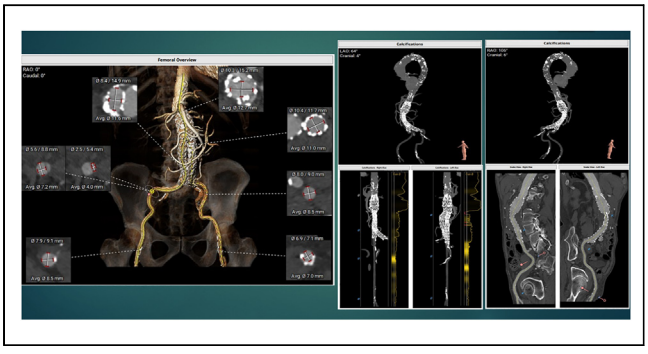




Relevant Test Results Prior to Catheterization. His 12 lead ECG showed sinus rhythm without any conduction abnormalities. ECHO revealed a bioprosthetic valve at aortic position with degenerative changes of the leaflets and severe transvalvular aortic regurgitation. CT analysis (TAVI Protocol) revealed aortic annulus 20.3mm in diameter, the annulus to LCA Height was 10.6mm, RCA height was 7.1mm. Iliofemoral analysis showed adequate sized peripheral arteries with tortuous femoral and external iliac arteries and a AAA graft. The SOV were large.



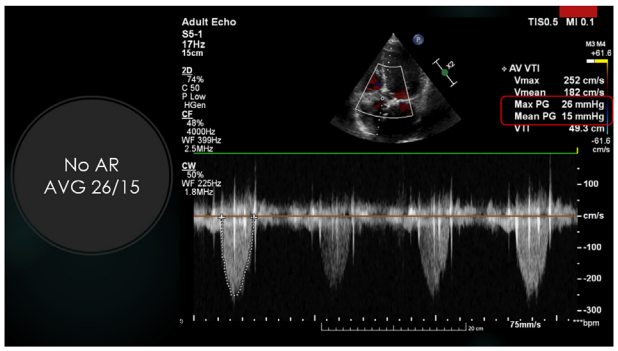




Relevant Catheterization Findings. Aortogram showed the Trifecta valve frame and severe AR. The aortic pressure confirmed the presence of AR.

INTERVENTIONAL MANAGEMENT

Procedural Step. Fluoroscopy guided femoral artery puncture was carried out. The aortic valve was crossed and the wire exchanged over a pigtail catheter to a SAFARI extra small wire. Pre-deployment aortogram revealed severe aortic regurgitation with aortic pressure of 110/16mmg (invasive). a 21.5 mm MYVAL was deployed at the implanters view in the lao caudal projection. Post deployment, there was no aortic regurgitation with significant improvement in the aortic diastolic pressure (110/60 mmHg). There was no evidence of coronary occlusion. Although the coronary heights were low we were confident that due to the large Sinus of Valsalva dimensions and the virtual valve to coronary distance, the risk of occlusion was minimal.



Conclusions. Current surgical bioprosthetic valves in the aortic position tend to degenerate after 8-10 years resulting in severe AS or like in this case severe AR. Both balloon expandable and self-expanding valves have been used to treat ViV lesions. The Trifecta valve cannot be cracked with balloon dilatation; since the patient had pre-dominant AR and there was no evidence of patient prosthesis mismatch with the first valve with a 21mm TRIFECTA we concluded it would be safe to implant a 21.5 mm MYVAL as a valve in valve in this patient. Our conviction was borne out by the satisfactory gradient post procedure which remained stable at 22/13 mm hg at 3 months follow up.

STRUCTURAL - IMAGING - ECHOCARDIOGRAPHY (TCTAP C-213)

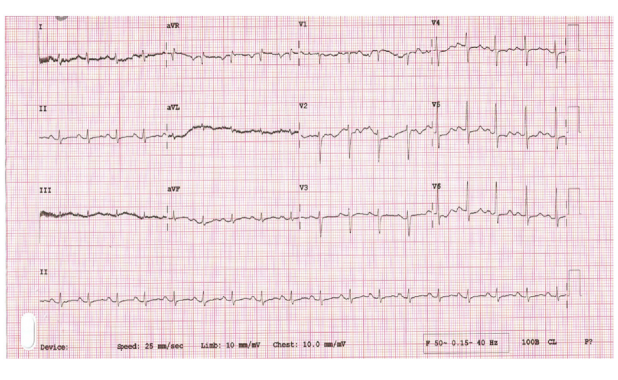
TCTAP C-213

An Interesting Case Report: Acute Myocardial Infarction Which Doesn't End up in Cardiac Catheterization Laboratory

Chatchai Pitakrattanachai,[1] Wittawat Wattanasiriporn[1]
[1]Rajavithi Hospital, Thailand

CLINICAL INFORMATION

Relevant Clinical History and Physical Exam. A 69-year-old Thai woman with unknown underlying condition. Presented with chronic dyspnea, orthopnea and chest discomfort for 1 week prior to admission. Upon admission day, she was good consciousness with stable vital signs and afebrile. None of chest deformities were seen. Cardiovascular examinations are unremarkable, without jugular venous distension or murmur and gallops. Pulmonary examinations revealed tachypnea and fine crepitation of bilateral lower lung fields.



Relevant Test Results Prior to Catheterization. Electrocardiogram (ECG) was performed-showing sinus rhythm 110 beats per min (BPM) with ST-segment depression in leads I, II, aVL and V4-V6, with chest radiograph (CXR) showed cardiomegaly with bilateral pulmonary congestion. High sensitivity troponin-I (hs-TropI) and N-terminal pro B-type natriuretic peptide (NT-pro BNP) were requested with highly elevated result as 2261.9 ng/L, 7270 pg/mL respectively. Acute NSTE-ACS with congestive heart failure was diagnosed.

Relevant Catheterization Findings. Echocardiogram accidentally found large anterior heterogeneous mass sized about 5x7 cm. This mass adjacent to right atrium (RA), right ventricle (RV) and tricuspid annulus causing mild to moderate tricuspid regurgitation (TR), no pericardial effusion. Chest CT was requested, reporting irregular-shaped heterogeneous anterior mediastinal mass sized 6.7x9x4.7 cm involving tricuspid valve, anterior wall of RA and RV. Right coronary artery (RCA) also passed through this mass.