TCTAP C-231
Core Valve Deformity During Retrieval
Chih-Kuo Lee, Hsien-Li Kao
National Taiwan University Hospital, Taiwan

[Clinical Information]
Patient initials or identifier number:
Taiwan NTUH 5952181
86 y/o man
Underlying Diseases: Severe AS, CHF, NYHA Fc:III, Chronic atrial fibrillation, Hypertension
2009 Exertional dyspnea & angina
Severe AS was diagnosed
2012/1 CHF improved after balloon valvuloplasty
2013/1 Heart failure symptom recurred
2013/4 Refer to NTUH for TAVI evaluation
Echocardiography: [Af rhythm], estimated AVA: 1.3~1.5 cm²; PG: 42.3 mmHg
moderate AR; LVEF: 62.9%
CAG: patent coronary arteries
Cross AV PG > 60 mmHg

[Interventional Management]
Procedural step:
1. After ETGA, a CVC line inserted through right femoral vein and a temporary pacemaker through right internal jugular vein.
2. Left femoral artery puncture with 6 Fr sheath inserted
3. Right femoral artery cut-down with 18Fr. sheath inserted
4. Inserted Amplatz superstiff 260 into LV as guidewire (AL1–>0.35 ST GW–>J-tipped 260 GW–> 6Fr. pigtail–> Superstiff)
5. Advanced Nucleus 20mm*4cm for balloon aortic valvuloplasty after rapid pacing up to 180bpm
6. Advanced Corevalve DLS across aortic valve then deployed Corevalve 31 mm but failed and Corevalve was deployed at abdominal aorta.
7. Kissing balloon with NUMED 20mm x 4cm and Wanda 8 x 40mm for abdominal aortic corevalve.
8. Advanced Corevalve DLS across aortic valve then deployed Corevalve 31 mm successfully
9. Deployed Complete SE ILIAC 10 x 80 mm to bilateral common iliac artery to abdominal corevalve.
10. Finally RFA wound was closed layer by layer
11. There is 1 mmHg pressure between Ao and LV

Case Summary:
1. We found the location of CoreVale wasn’t good enough during deployment.
2. There was strong resistance when we decided to retrieve the Corevalve.
3. Then deformity of sheath and Corevalve were too severe to be retrieved.
4. We used balloon to make Corevalve attached tightly to aortical wall.
5. We deployed second Corvale successfully.

Could we have another management in this situation?

TCTAP C-232
The Price of Premature Withdrawal (Wire)
Che-Wei Liao, Hsien-Li Kao
National Taiwan University, Cardiovascular Center, Taiwan

[Clinical Information]
Patient initials or identifier number:
Mr. Jien-Hsie
93-year-old male
Chronic kidney disease, hypertension, benign prostate hypertrophy congestive heart failure NYHA Fc: III junctional bradycardia
2008 ~ dyspnea on exertion; aortic stenosis diagnosed in other hospital
2013 ~ Deteriorated exercise capacity, with shortness of breath

Relevant clinical history and physical exam:
93-year-old male
Chronic kidney disease, hypertension, benign prostate hypertrophy congestive heart failure NYHA Fc: III junctional bradycardia
2008 ~ dyspnea on exertion; aortic stenosis diagnosed in other hospital
2013 ~ Deteriorated exercise capacity, with shortness of breath

Relevant test results prior to catheterization:
Transthoracic Echocardiography
Normal LVEF, Concentric LVH
Severe AS, AVA 0.6cm², Mean PG = 60mmHg
Mild to moderate MR, AR
Moderate TR

Relevant catheterization findings:
Non-significant CAD
calculated aortic valve, mild to moderate AR
LV-AO PG: 51mmHg
Interventional Management

Procedural step:
1. After ETGA, a CVC line is inserted through left internal jugular vein and a temporary pacemaker through right internal jugular vein
2. Left femoral artery picture with a 6Fr sheath inserted
3. Right femoral artery cut-down with 18Fr sheath inserted
4. Inserted a Amplatz superstiff 260cm in to LV as guidewire (0.35” Stiff-terumo into LV via a AL1 diagnostic catheter -> change to J-tipped guidewire -> insert a pig-tail catheter into LV -> insert the Amplatz Super-stiff wire)
5. Aortic valvuloplasty with Nucleus 20 x 40mm, under rapid pacing up to 180bpm
6. Deploy Medtronic CoreValve 29mm
7. Post-dilataion with NuMed 25 x 40mm
8. The 1st CoreVavle popped out while retrieving the wire
9. No PG across the dislodged valve and the aortic branch compromised
10. TEE showed no dissection
11. Deploy a 2nd Medtronic CoreValve 29mm
12. No LV-Ao pressure gradient
13. Close RFA wound layer by layer

Case Summary:
This is a 93-year-old male, with severe aortic stenosis and underwent TAVI in Aug. 2013. After the post-deploy dilation of the first Core Valve, the proximal stent strut was deformed and the Valve was retracted while drawing the wire, as the wire passing from outer stent side through a strut into the stent. The first valve was placed right at the aortic arch and a second Core Valve was later deployed successfully. The patient’s condition improved after the procedure and there was no related complication.

TCTAP C-233
Pericutaeneous Transvenous Mitral Commissurotomy in 71 Years Old Woman with Mitral Stenosis
Abdullah Al Shafi Majumder
National Institute of Cardiovascular Diseases, Bangladesh

[Clinical Information]
Patient initials or identifier number:
Rabeya

[Interventional Management]
Procedural step:
A 71 year-old woman with known mitral stenosis (MS) admitted on 19.01.2013 in National Institute of Cardiovascular Disease (NICVD), Dhaka with history of palpitation and dyspnea on exertion for several years. On examination, her blood pressure was 100/70 mm Hg and her heart rate was 72 per minute, irregular. JVP is raised with absent a wave. There was a tapping apex beat, palpable P2 and a diastolic thrill over the apical area. The 1st and the pulmonary component of the 2nd heart sounds were loud, and a low-pitched, localized, mid diastolic murmur of grade 4/6 was heard over the apical area. The 1st and the 2nd heart sounds were loud over the apical area. Total leukocyte count was 10400/mm3, erythrocyte sedimentation rate 18 mm in 1st hour, hemoglobin 10.8 gm/dL, C-reactive protein negative, anti-strep-tolyisin O (ASO) titer <200 IU, bleeding time 3.15 minutes, clotting time 5.45 minutes, prothrombin time was normal. In ECG heart rate was 80/min with atrial fibrillation. Chest X-ray showed straightening of the left cardiac border, widen angle of carina, double counter right border. Echocardiography revealed severe mitral stenosis due to chronic rheumatic heart disease with mitral valve area (MVA) 0.9cm2, mildly dilated left atrium (44 mm), with pulmonary artery systolic pressure (PASP) 41mm Hg. Doppler studies showed a peak mitral valve gradient (MVG) 21 mm of Hg. Trivial MR, moderate tricuspid regurgitation, normal left ventricular (LV) size with ejection fraction (EF) 63%, no left atrium (LA) thrombus, and mitral valve Willkin’s score was 7. Coronary angiogram (CAG) was done before PTMC and was found normal epicardial coronary vessel. PTMC was done successfully through right femoral vein approach. Left atrial pressure fall down from 38/18/25 mm of Hg (systolic/dias-tolic/mean) to 22/10/15 mm of Hg (systolic/diastolic/mean). Before PTMC aortic pressure was 100/80/90 mm of Hg (systolic/diastolic/mean) after 110/85/95 mm of Hg (systolic/diastolic/mean). Whole procedure and the postoperative period were uneventful. Patient was discharged on 4th postoperative day and followed up after 5 months. She had no palpitation and shortness of breath. Follow up echocardiography showed MVA-1.8-2.0 cm2 with trivial MR, MVG 6.07mm of Hg PASP 36 mm of Hg. No vegetation or thrombus.LV systolic function was good.

CASES

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