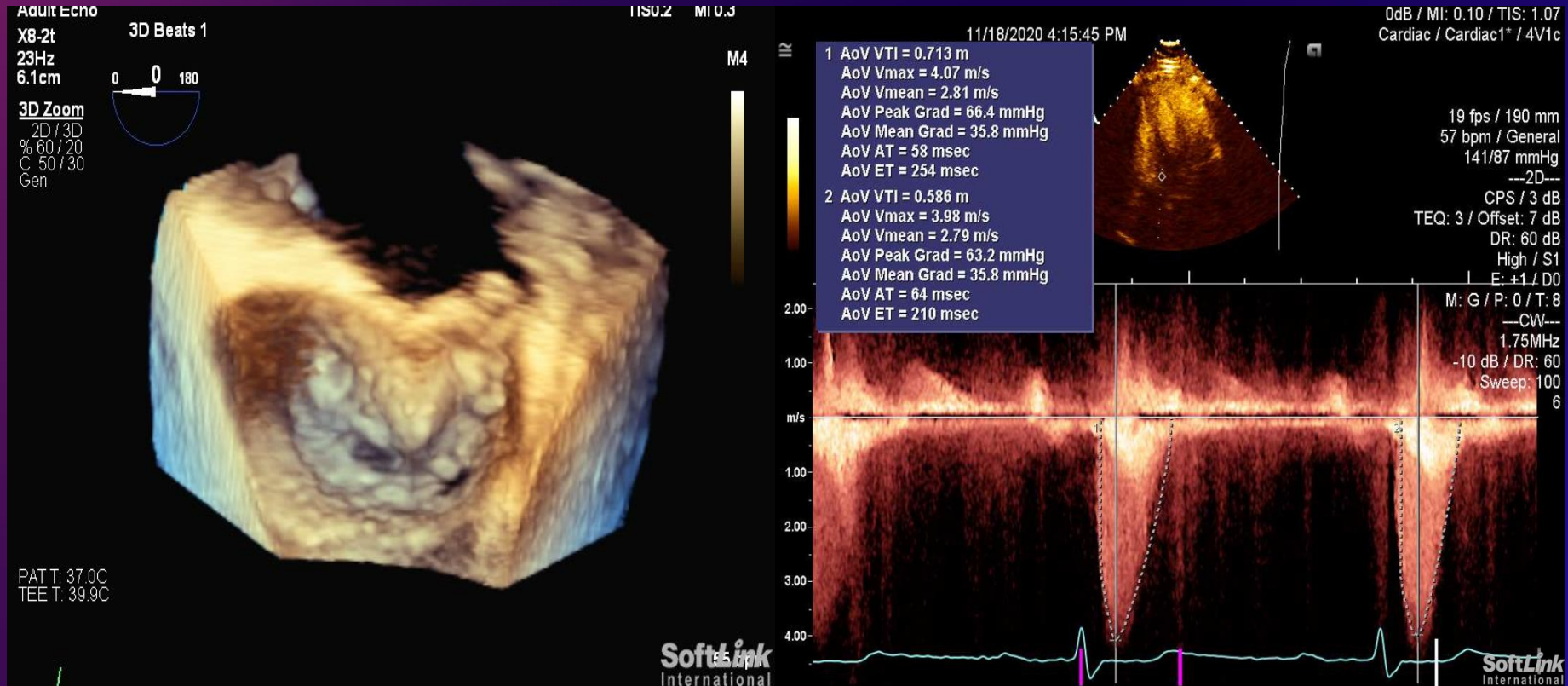


Case Background

- Presentation: 73 year old male presenting with progressive fatigue and Dyspnea on exertion with NYHA Class III symptoms for 6 months
- PMH: Hypertension, Hyperlipidemia, bicuspid AS with ascending aorta aneurysm s/p AVR using 25mm Mitroflow prosthesis and aortic graft replacement using 32mm Hemashield prosthesis in 2009, COVID-19 infection (not requiring hospitalization 3/2020)
- Medications: Aspirin, Metoprolol, Lasix, Atorvastatin
- Labs: Hgb 14, PLT 137K, K 4.3, Cr 0.8, INR 1.1
- EKG: sinus bradycardia with 1st degree AVB (PR interval 282ms), LAHB, RBBB, QRS 140ms; QTc 403ms
- Cath: Non obstructive CAD

Echocardiogram



Limited mobility and systolic doming of
bio prosthetic leaflet

Severe bio prosthetic AS
(PG/MG/AVA/PV: 67/32/0.83/4.07)

CTA: Aortic Annulus

Aortic Annulus

Min: 24.8 mm

Max: 28.0 mm

Mean: 26.4 mm

Perimeter = 84.1 mm

Area = 555.4 mm²



Calculated internal diameter of bio
prosthetic AV= 23mm



CT: SOV, STJ, Coronary height

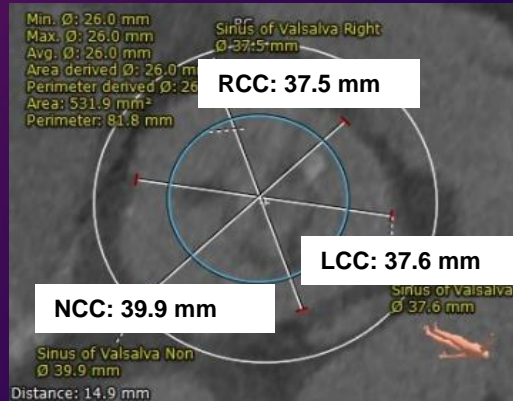
CT: 3D femoral overview

Sinus of Valsalva

RCC = 37.5 mm

LCC = 37.6 mm

NCC = 39.9 mm



STJ = 36.4 x 36.7 mm (mean 36.5 mm)

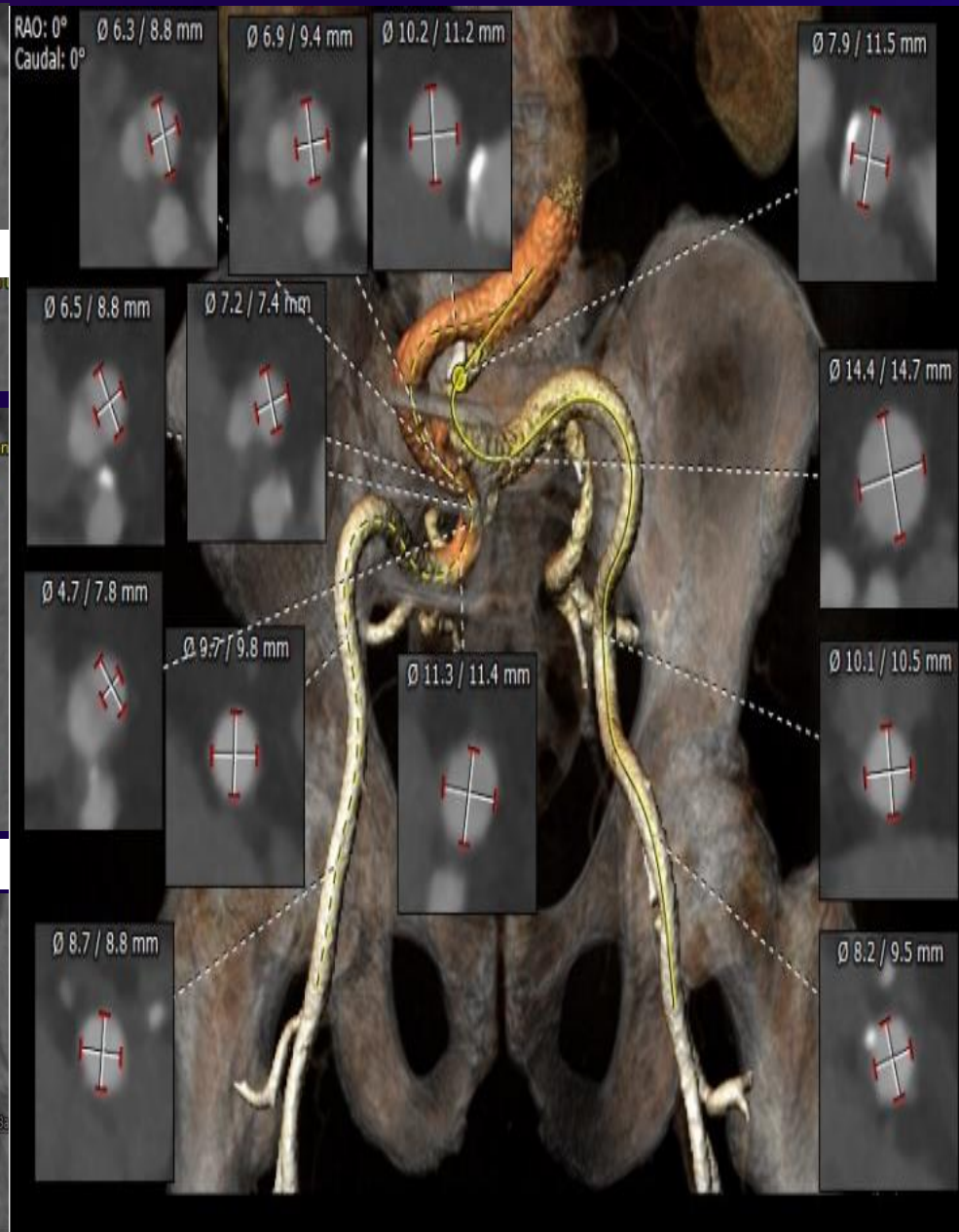
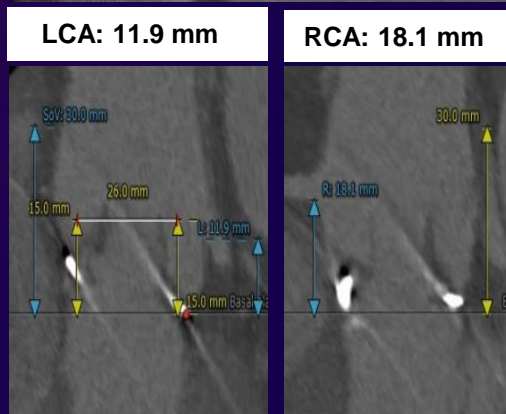


Coronary heights

LCA = 11.9 mm

RCA = 18.1 mm

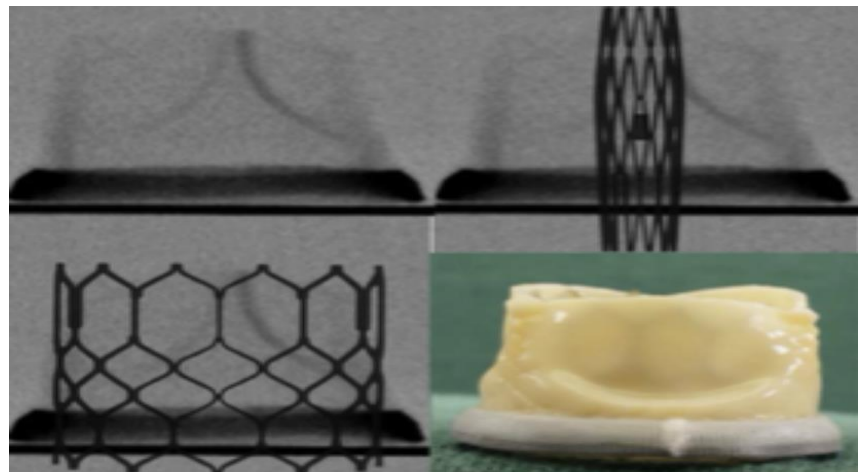
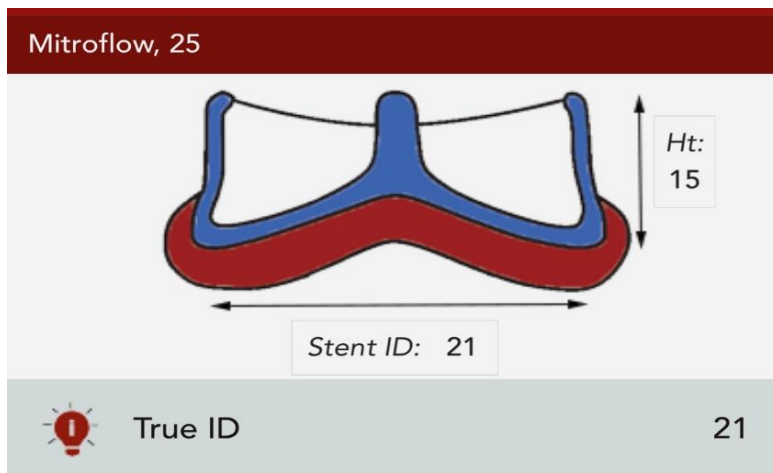
STJ height = 30 mm



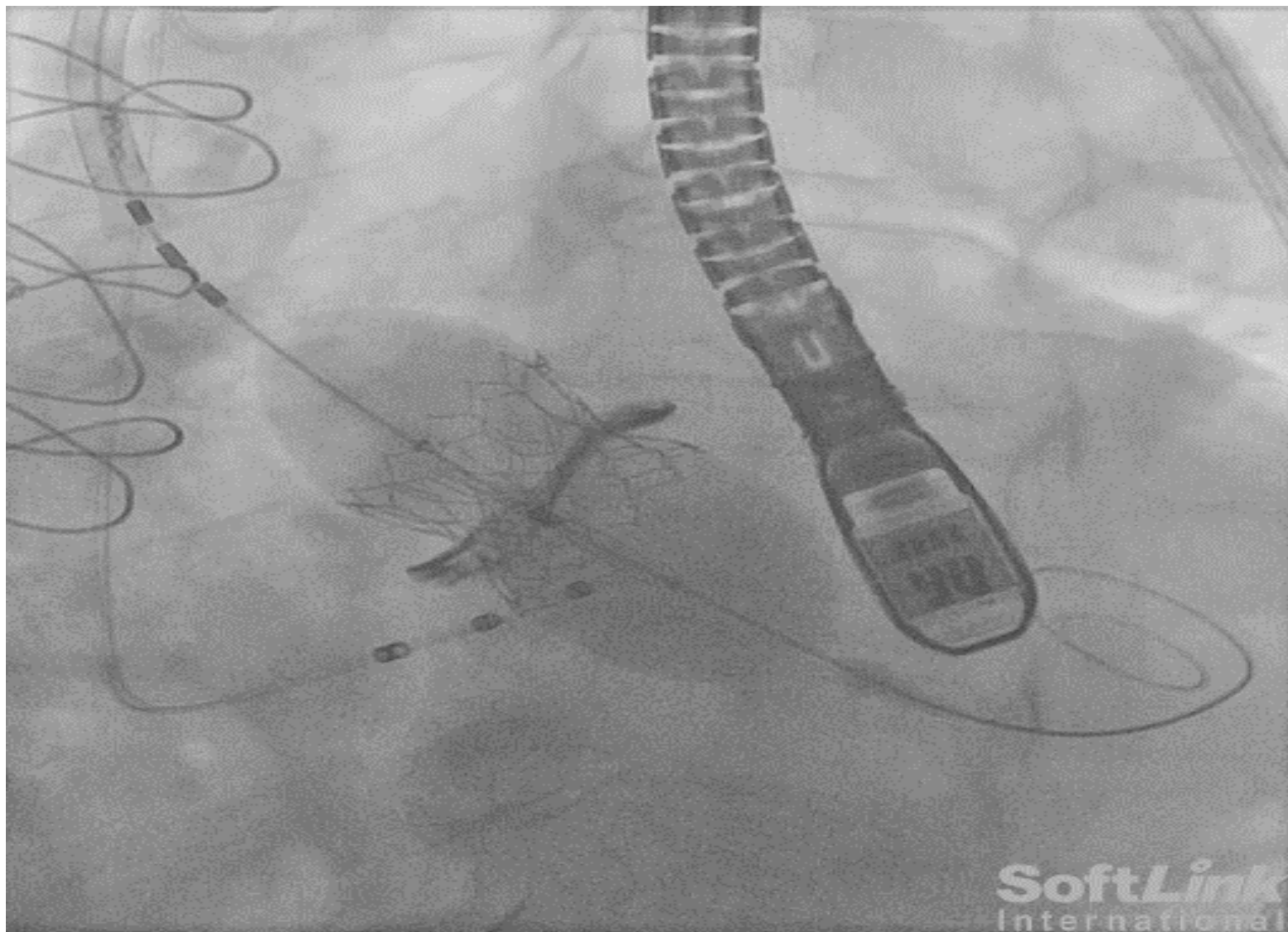
STS risk of mortality for redo SAVR: 1.65%

Plan: Patient was evaluated by Heart Team and determined to be low risk for Redo surgical AVR but patient refused surgery and opted for ViV TAVI. Patient was therefore planned for transfemoral ViV TAVI using 26mm Sapien S3 Ultra via LFA approach

25 mm Mitroflow valve dimensions with valve in valve positioning



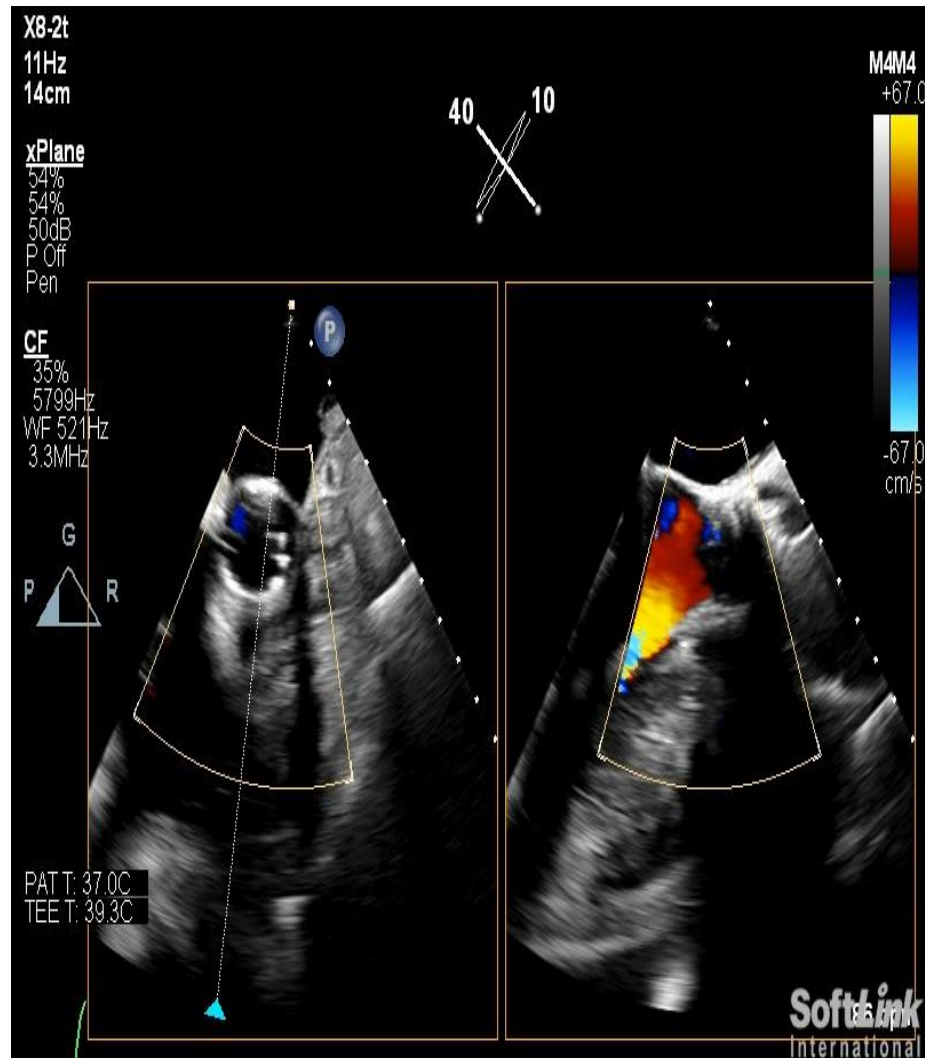
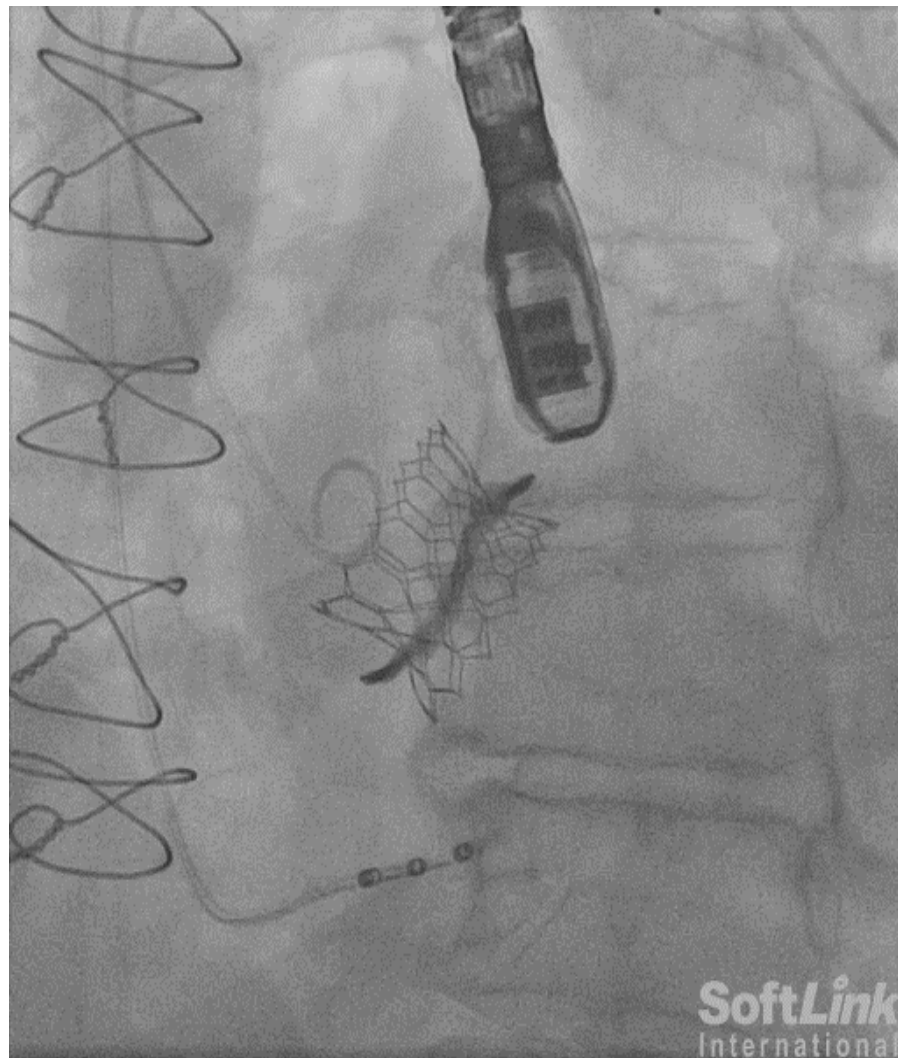
26mm S3 Ultra deployed with constrained valve frame



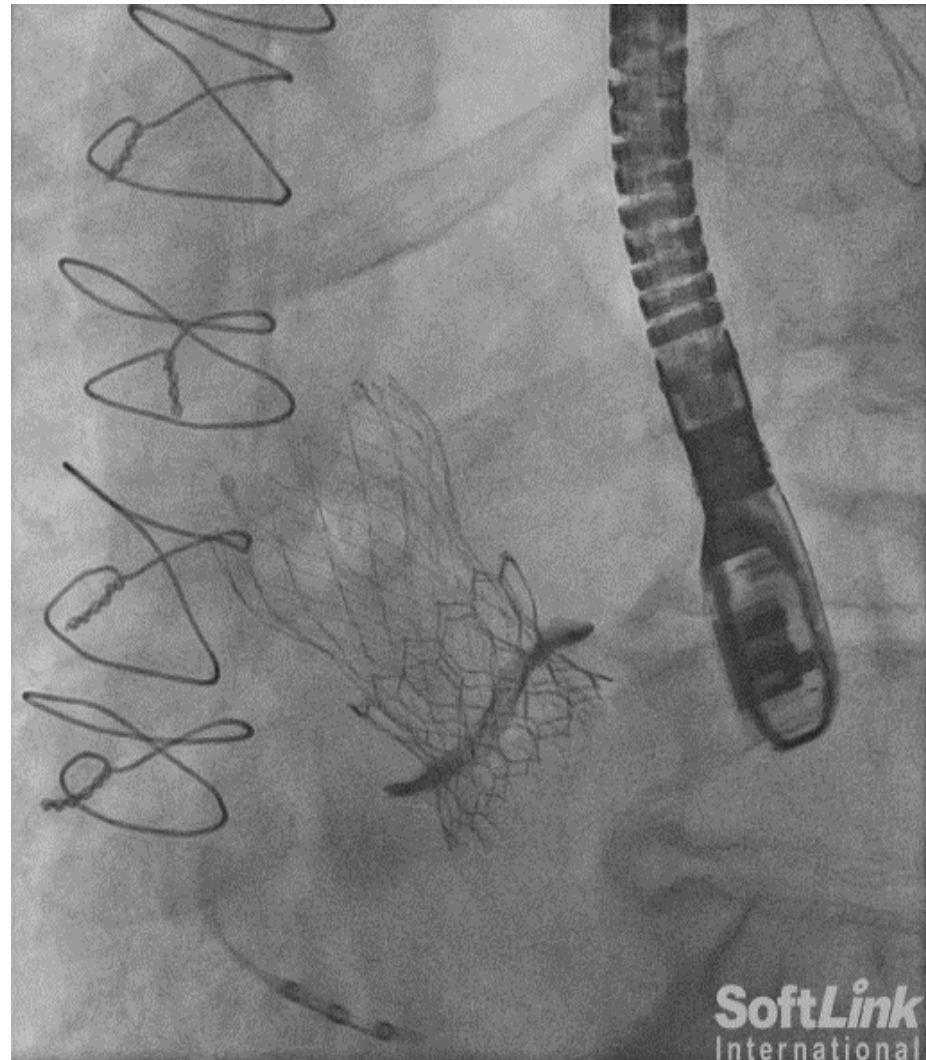
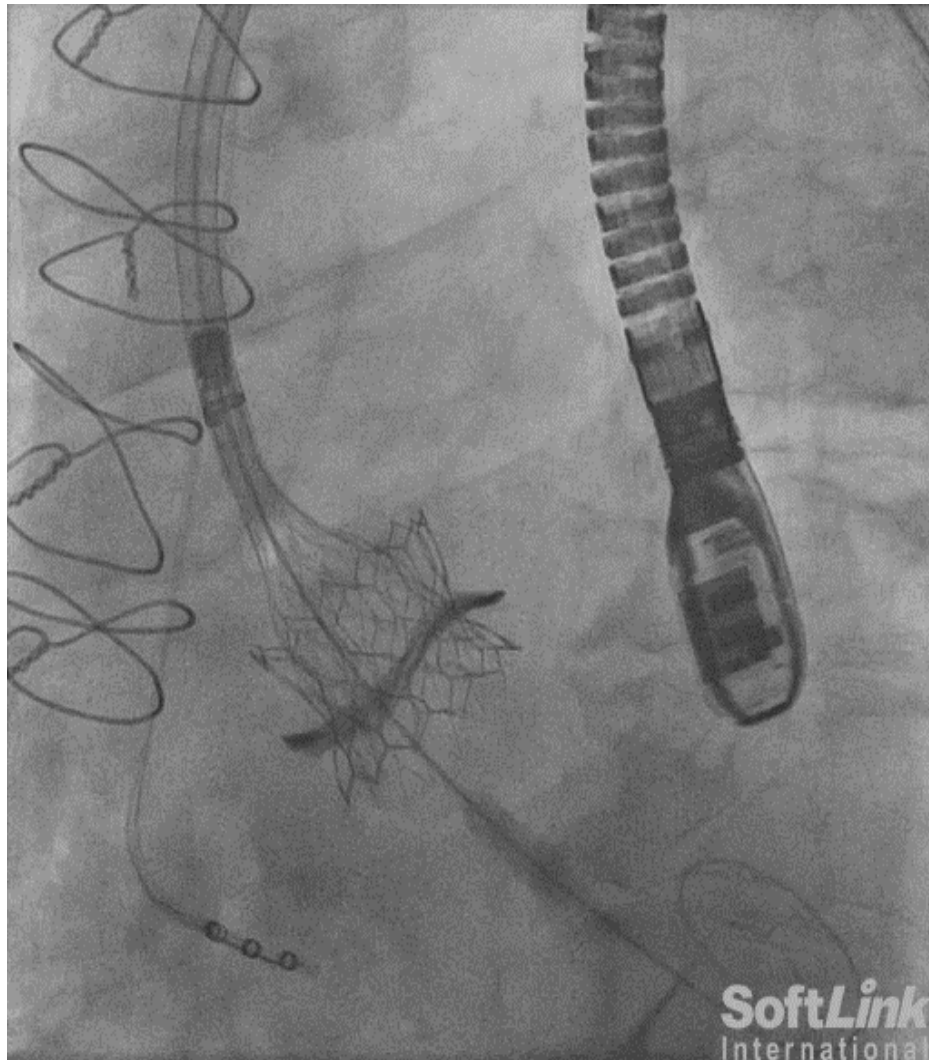
Balloon valve fracture attempted twice using 26mm True Balloon but without success



Patient with acute hemodynamic decompensation secondary to acute aortic insufficiency caused by leaflet damage of newly implanted Sapien Valve



26mm Evolut Pro + emergently placed inside the Sapien valve with resolution of aortic insufficiency and hemodynamics stabilized



Pt was discharged home two days later in stable condition. Echocardiogram on discharge showed normal functioning prosthetic valve with mean gradient of 13mm Hg