



Washington
Hospital Center

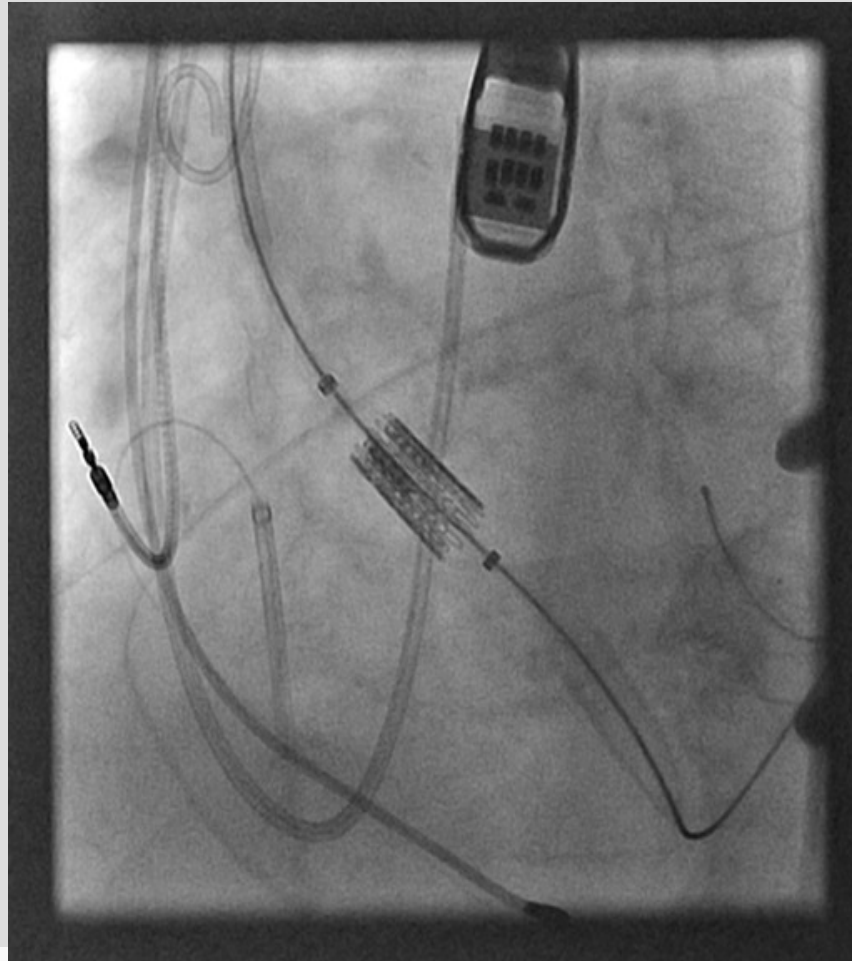
MedStar Health

Massive Aortic Regurgitation immediately after TAVR

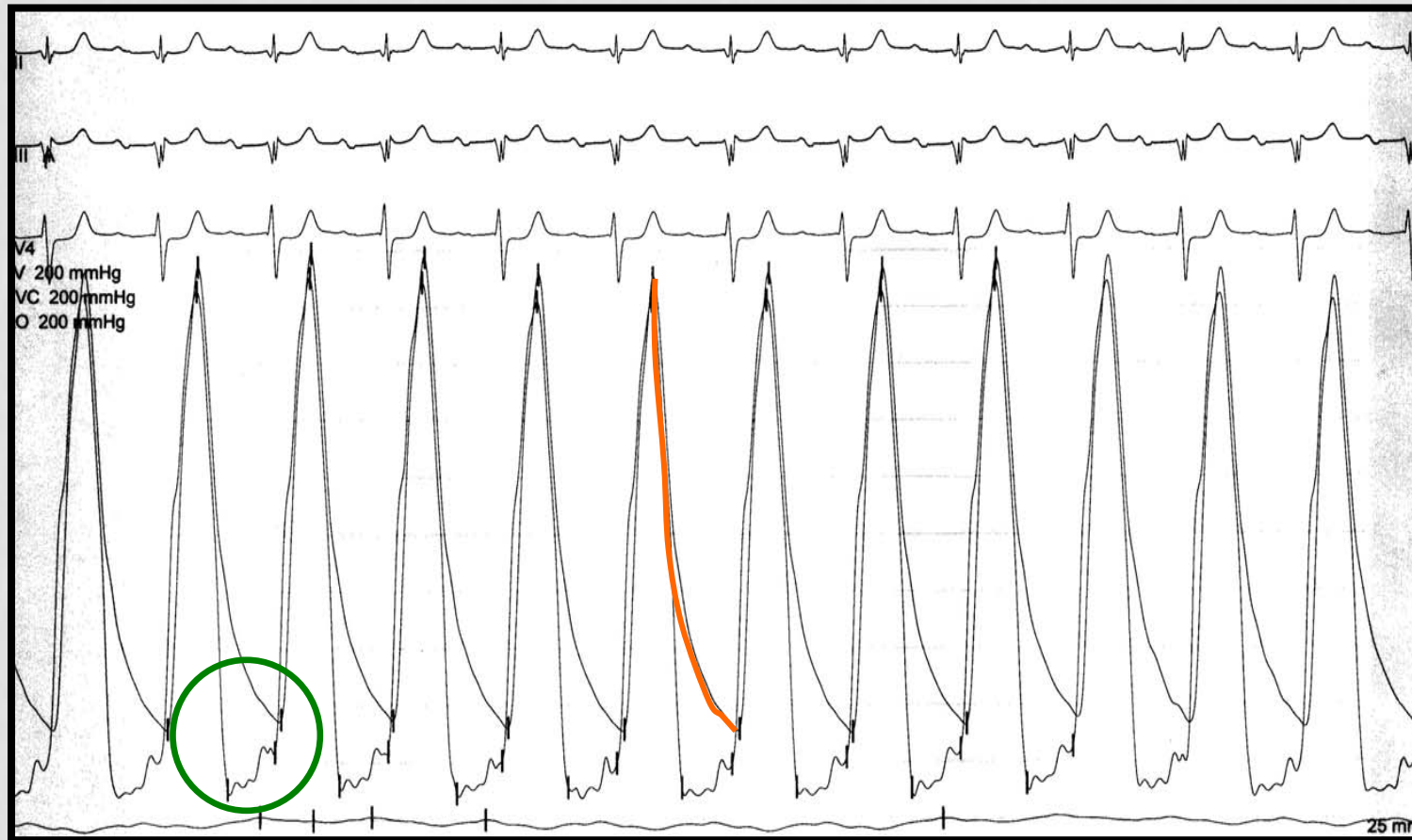
A. Pichard, G. Maluenda, I. Ben-Dor, L. Satler, R.
Waksman, S. Goldstein, Z. Wang, MD, P. Corso

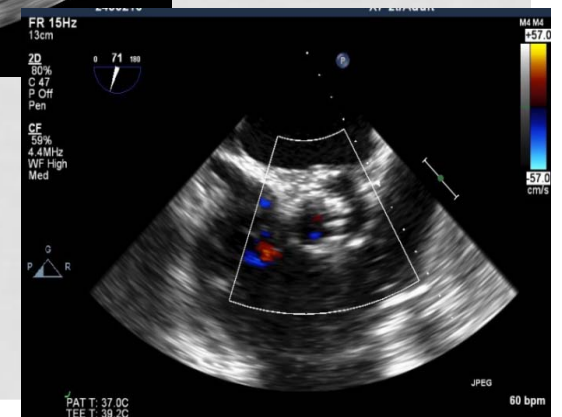
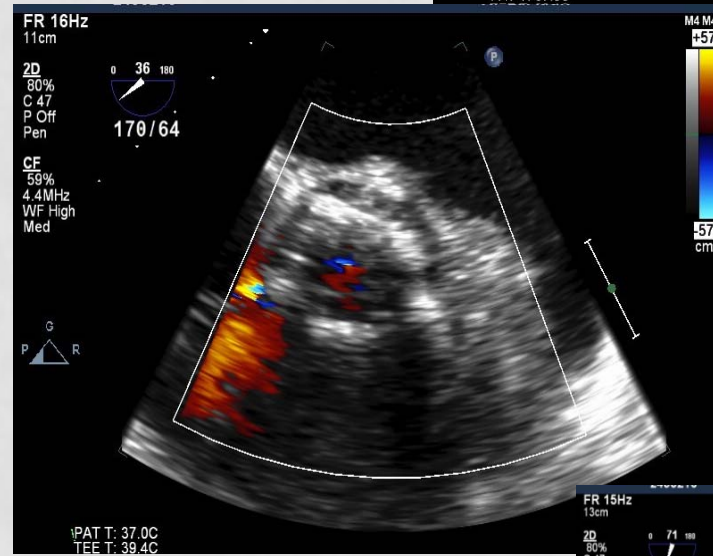
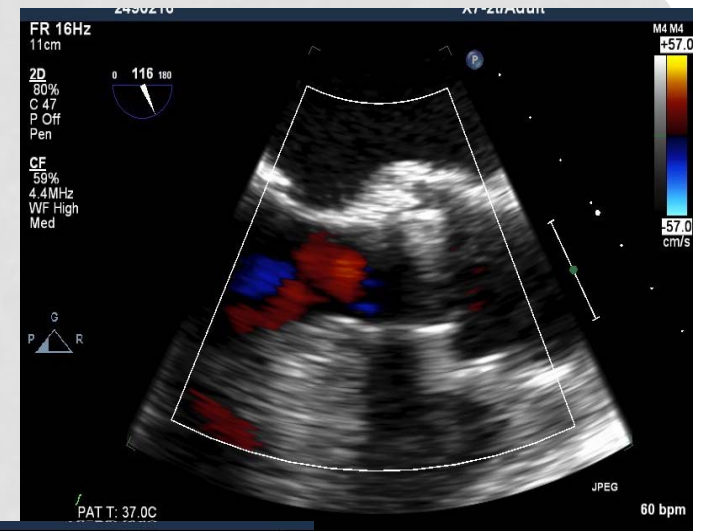
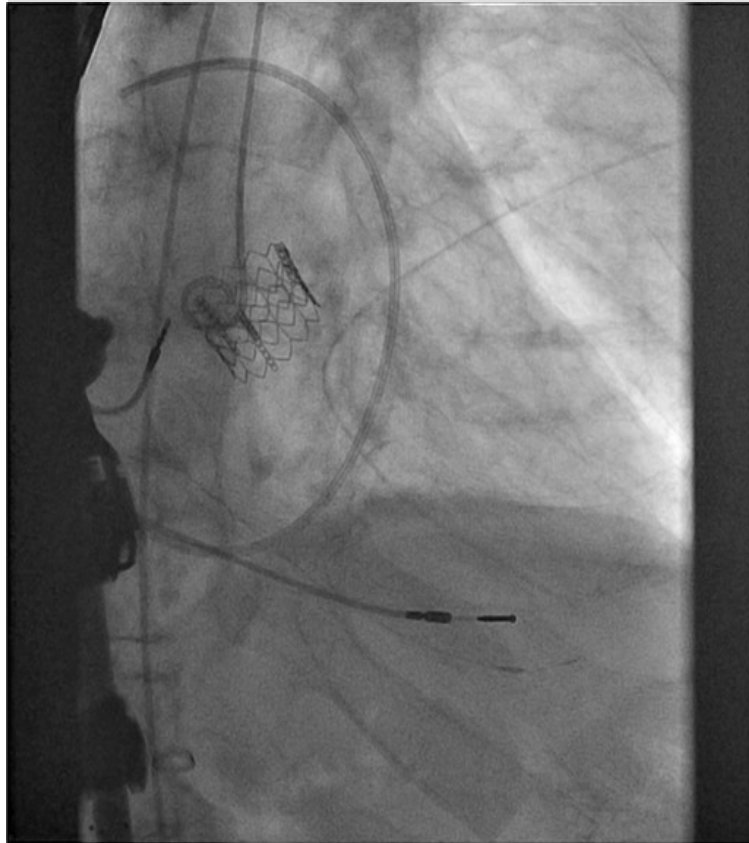
First Case (2007)

Valve deployment

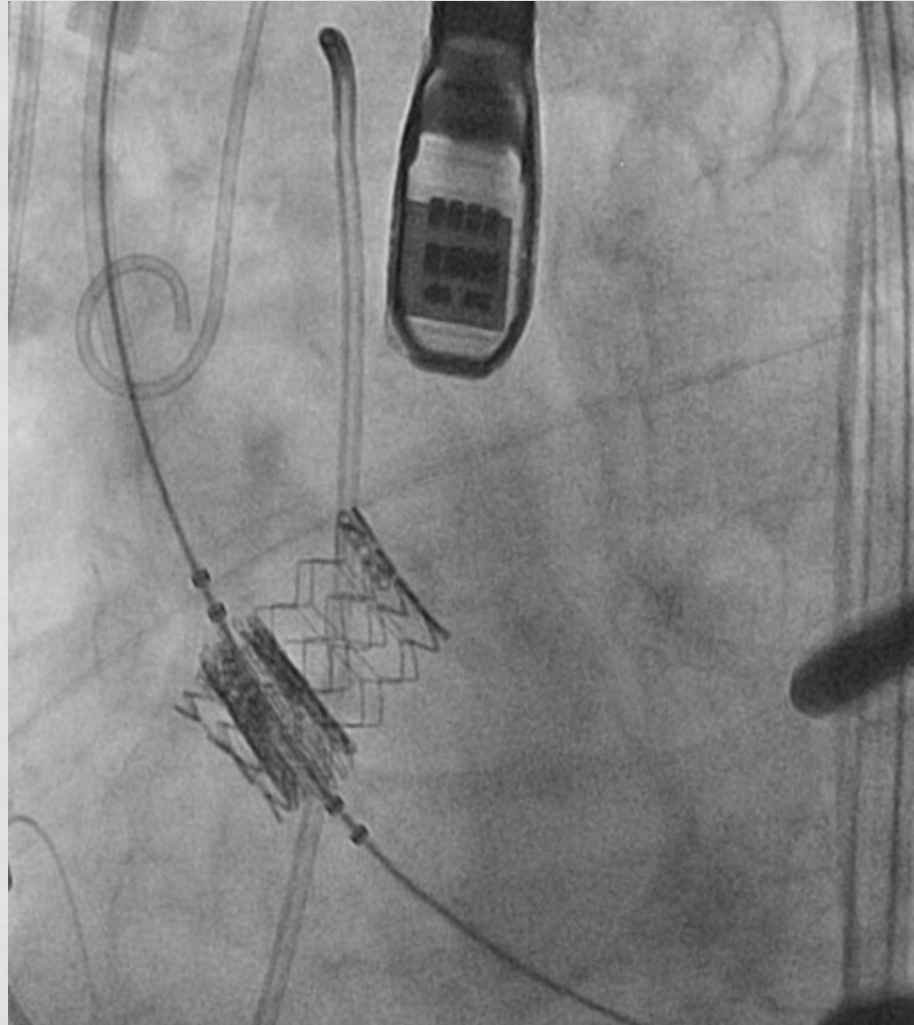


Immediately after Valve implantation: wide open AR



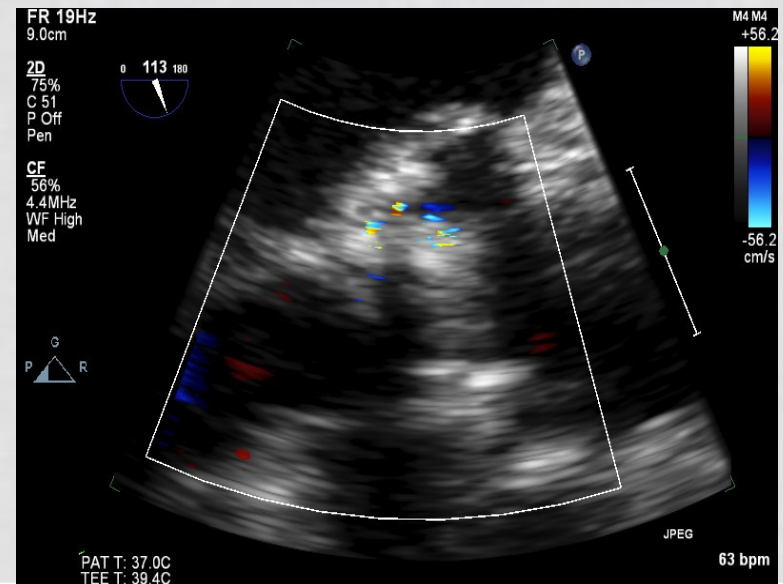
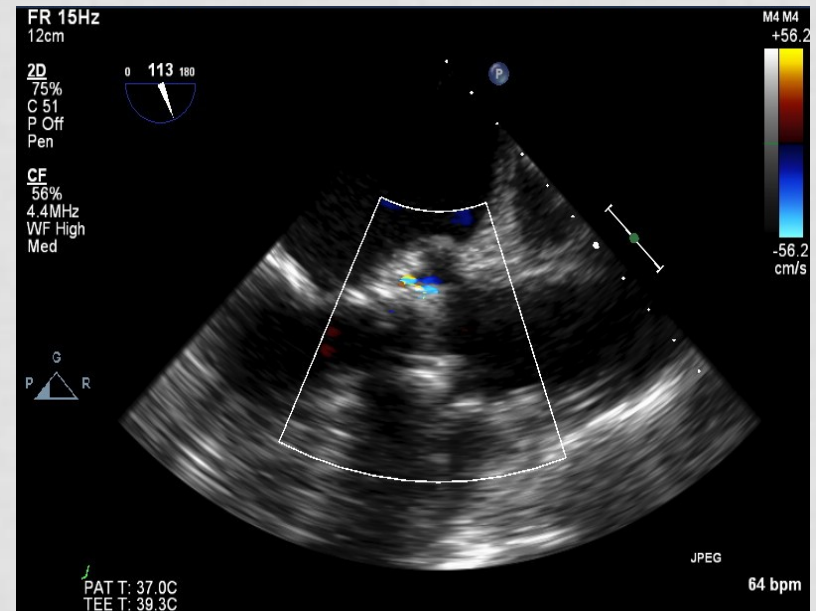
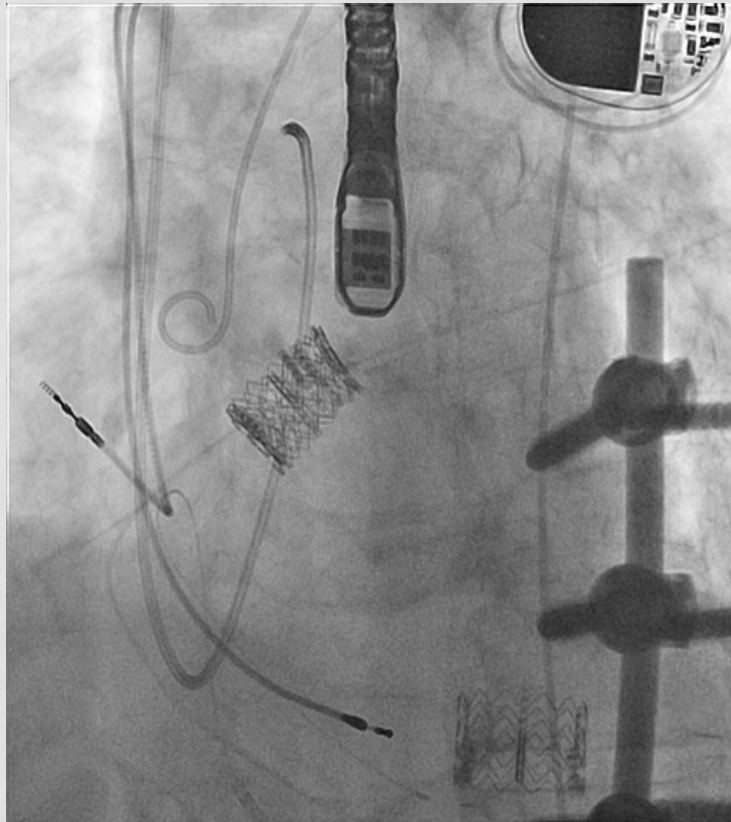


- Severe central AR.
- restricted motion of one of the prosthetic leaflets



Additional Valve Deployed

Final: trace AR



Second Case (2011)

History

89 year old male

AVA 0.6 cm²

Progressive CHF and syncope.

Prior Balloon aortic valvuloplasty

Prior CABG

Lab

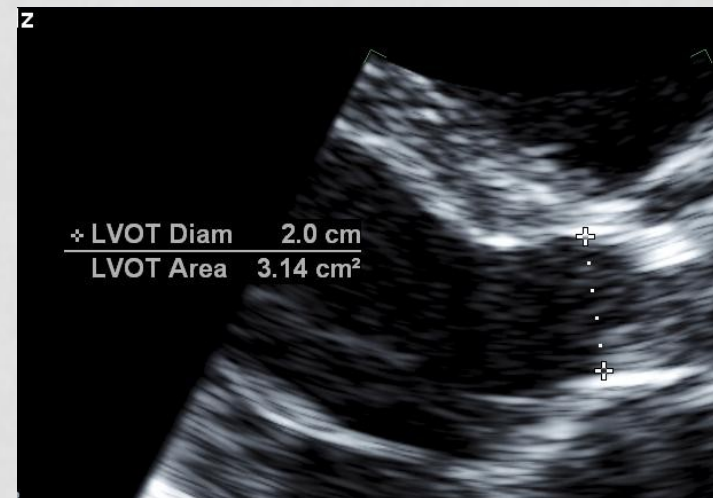
- Creat: 1.6 gm/dl
- Hgb: 12.3 gm/dl
- Hct: 36.8 %

STS 15.1%

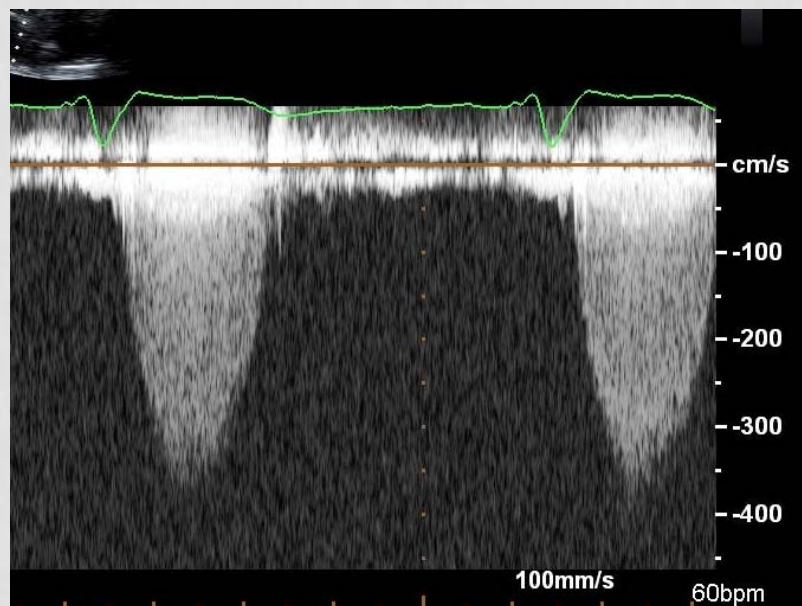
Stress Echo

20 mcg of Dobutamine:

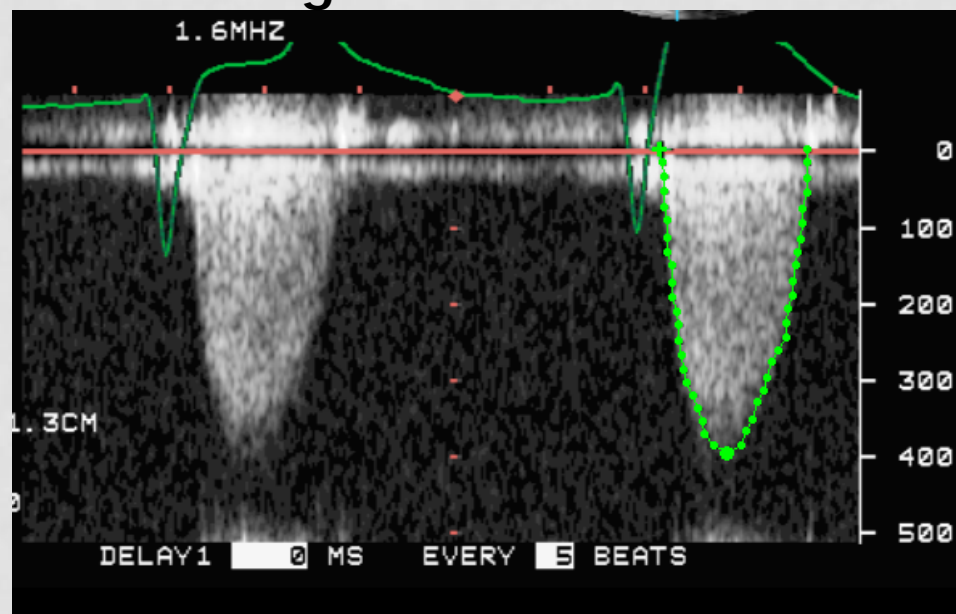
- V Max: 4.1 to m/sec
- Mean gradient: 41 mm Hg
- EF: 35%
- Aortic valve area: 0.75 cm²
- Indexed AVA: 0.39 cm²



BASELINE

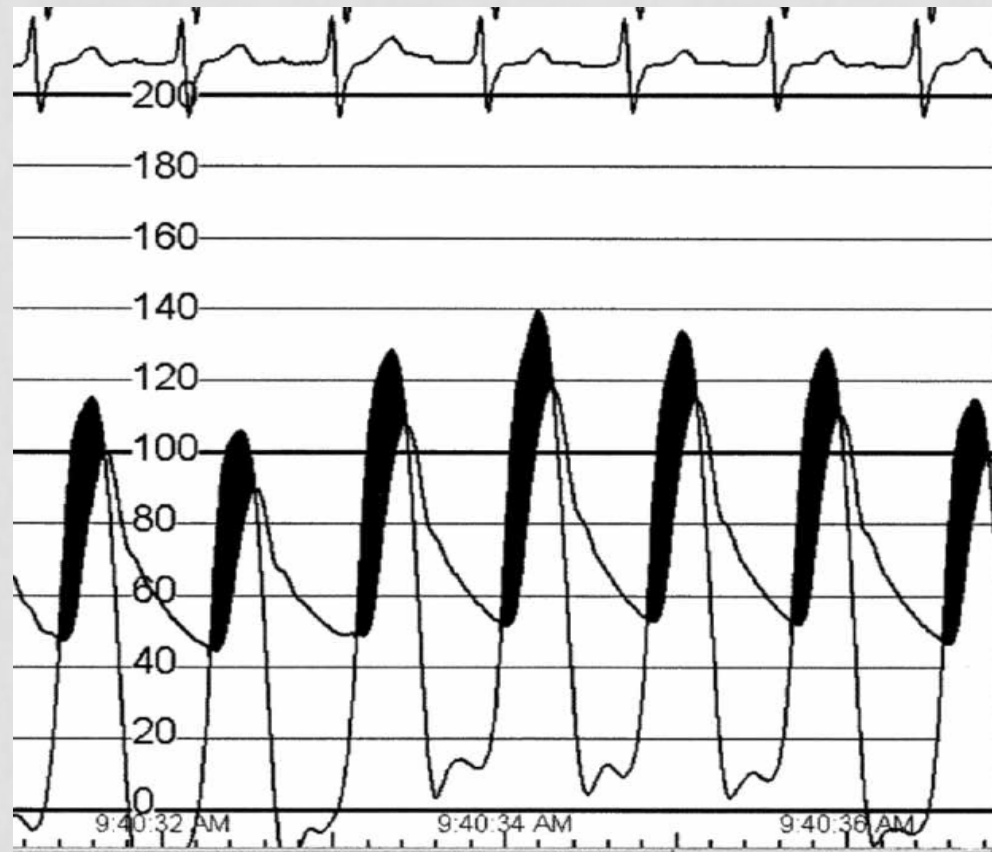


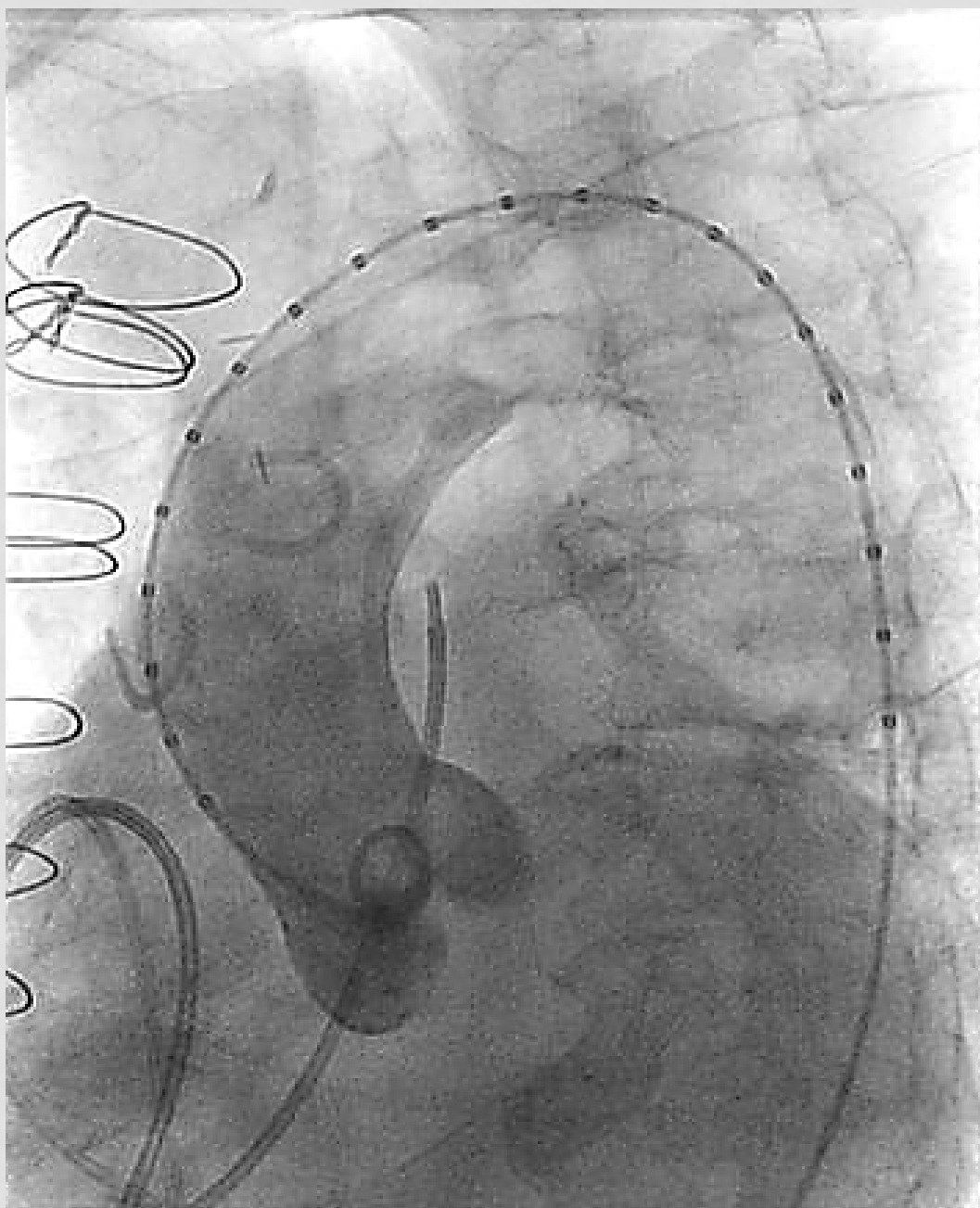
DBT 20 mcg

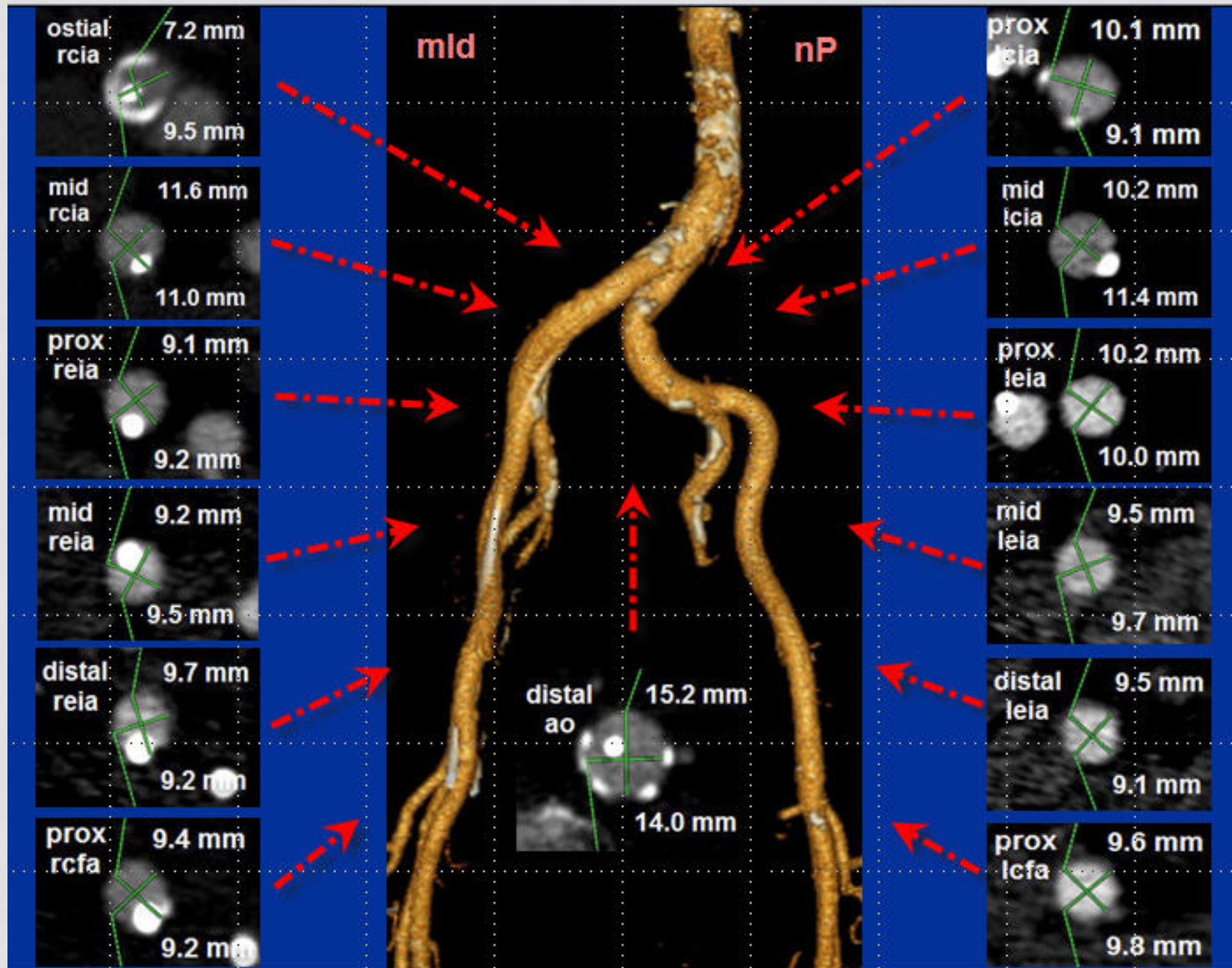


Baseline Hemodynamics

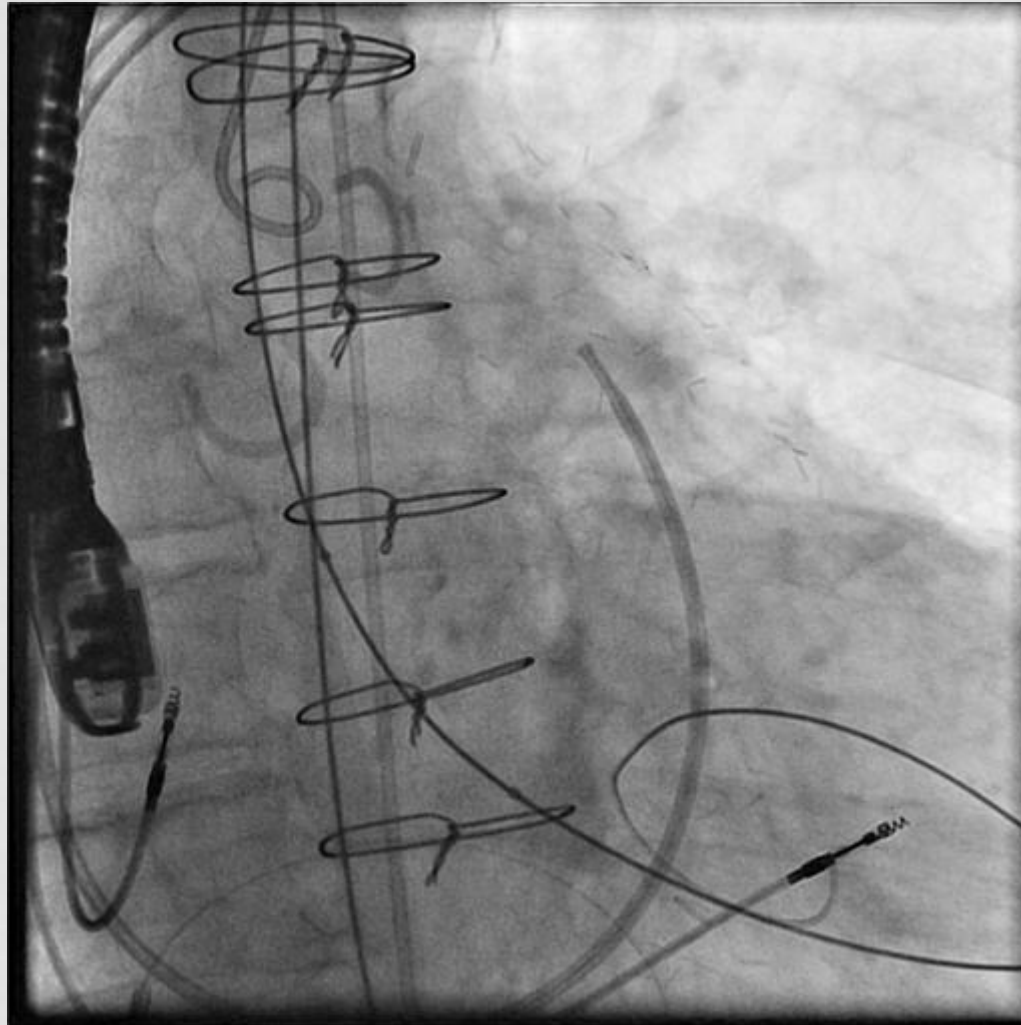
- Mean gradient: 31 mm Hg
- Aortic valve area: 0.6 cm²
- CO: 2.9 L/min



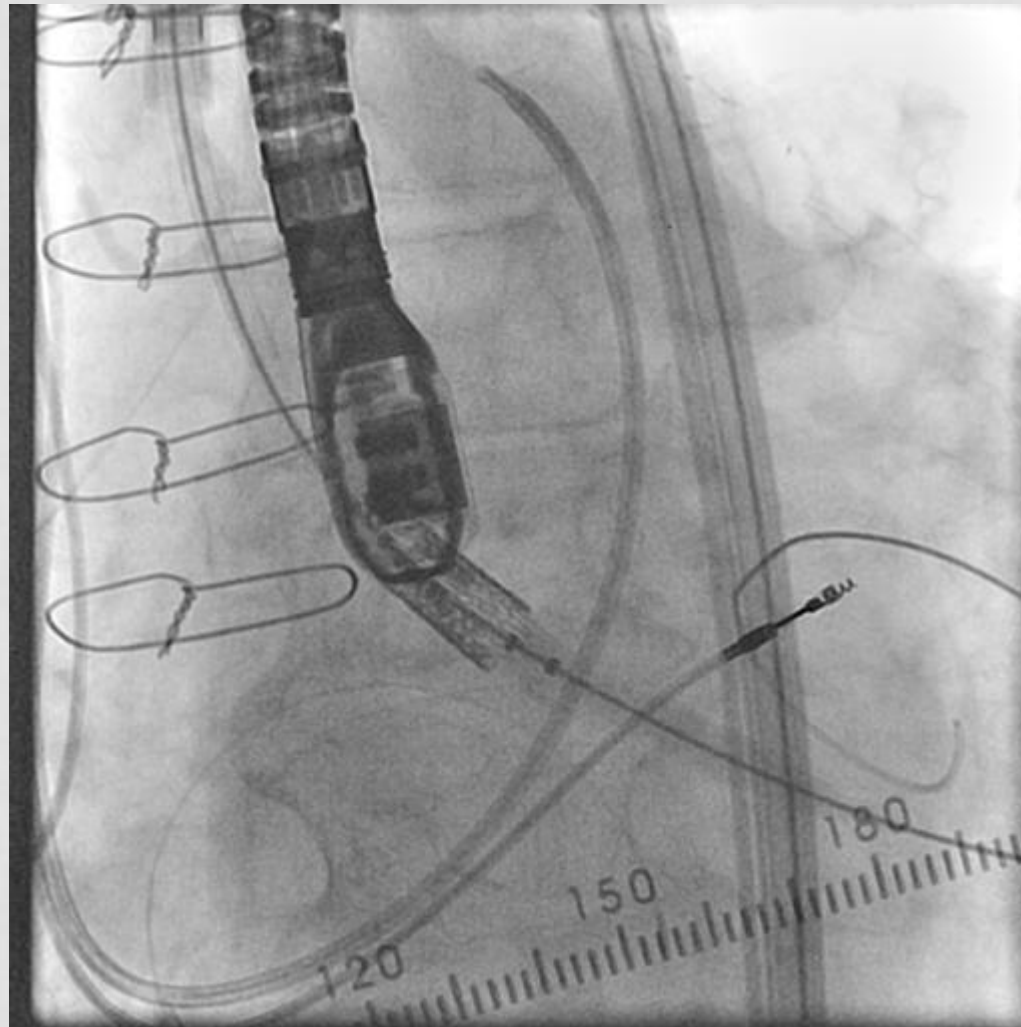




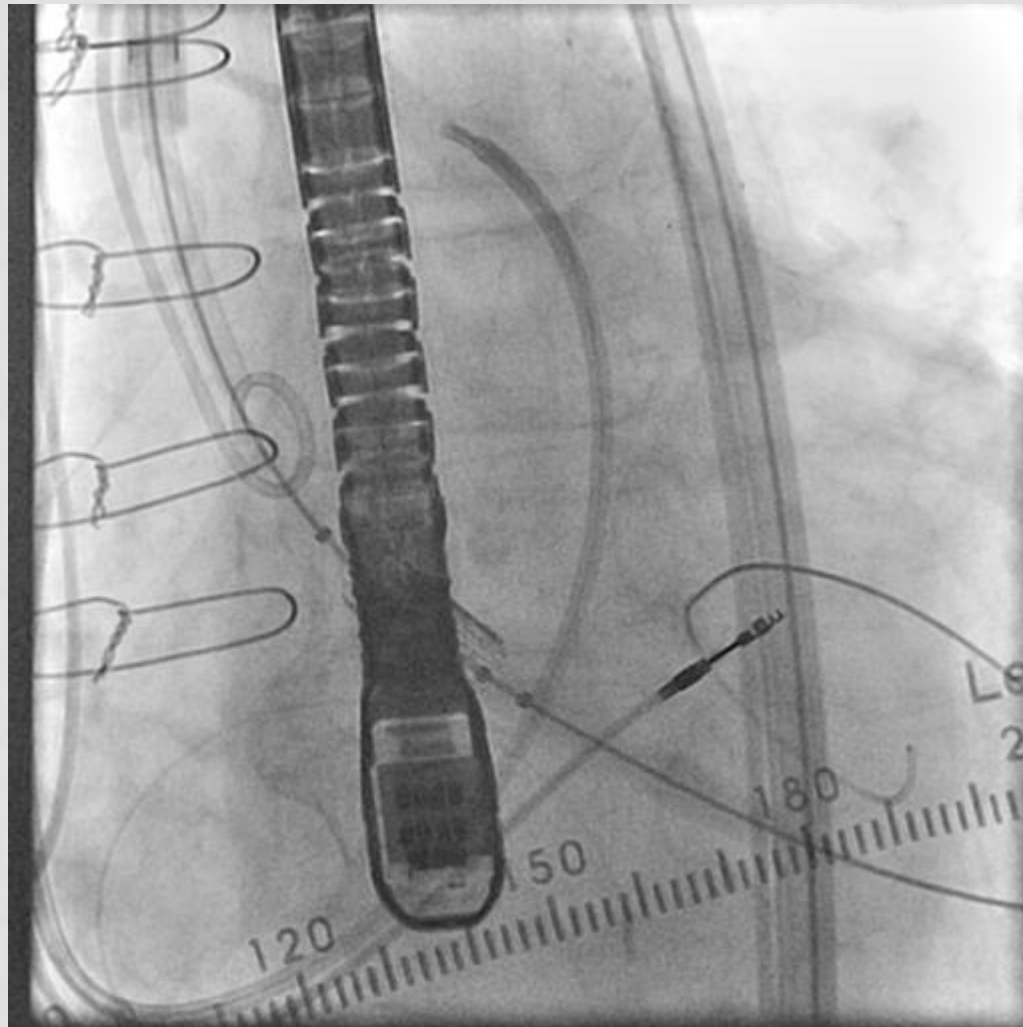
BALLOON VALVULOPLASTY



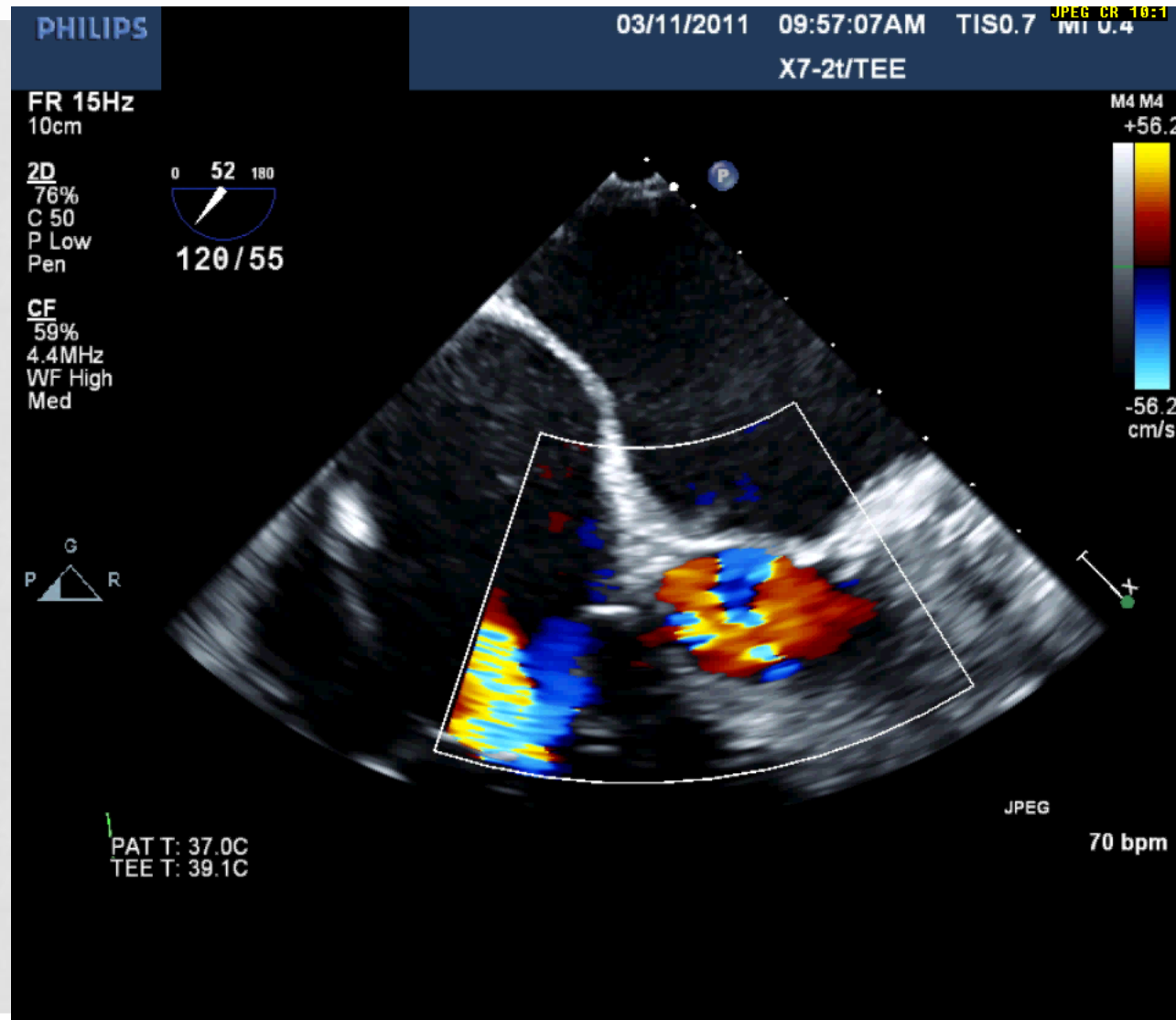
VALVE POSITIONING



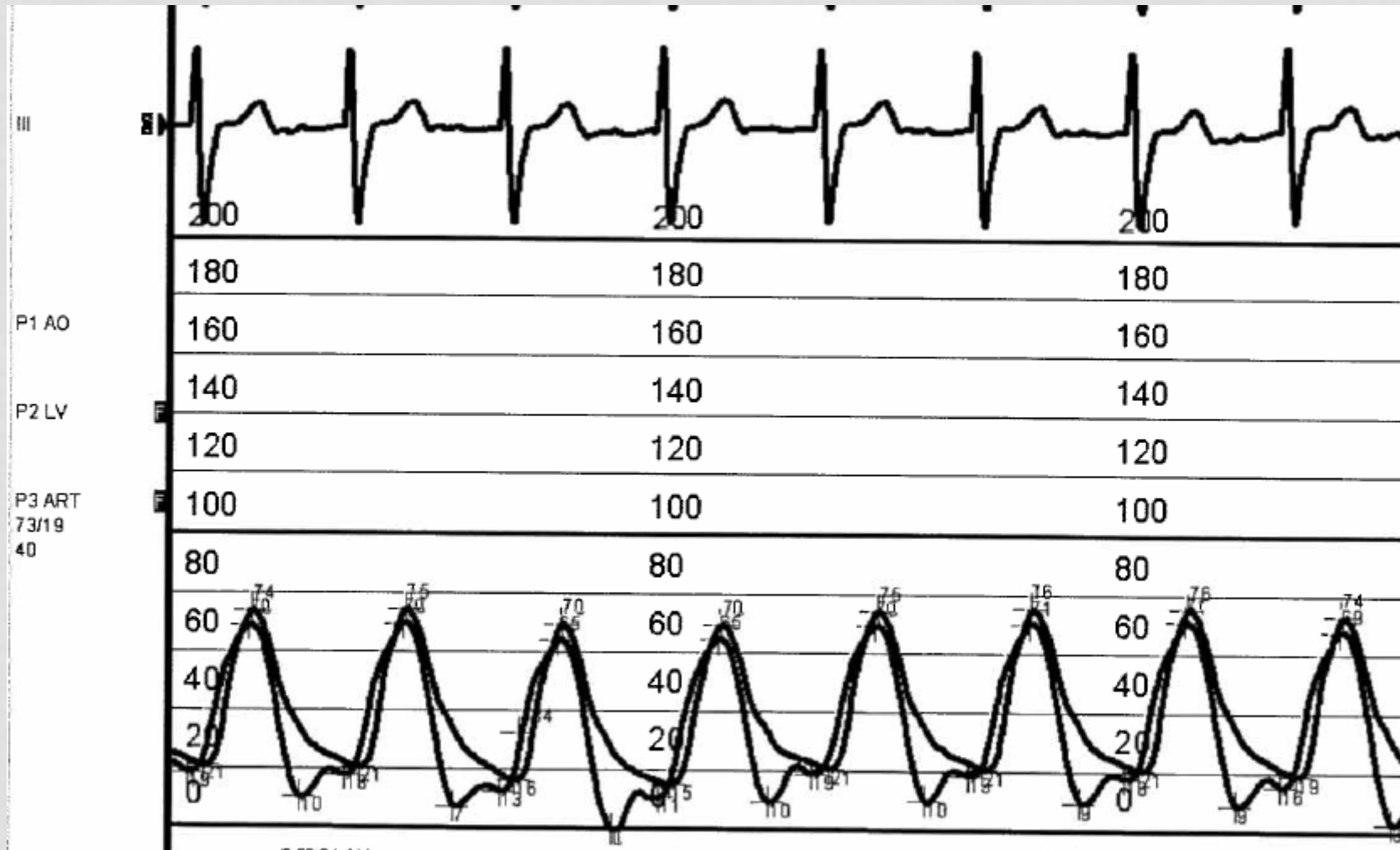
EDWARDS SAPIEN VALVE DEPLOYMENT



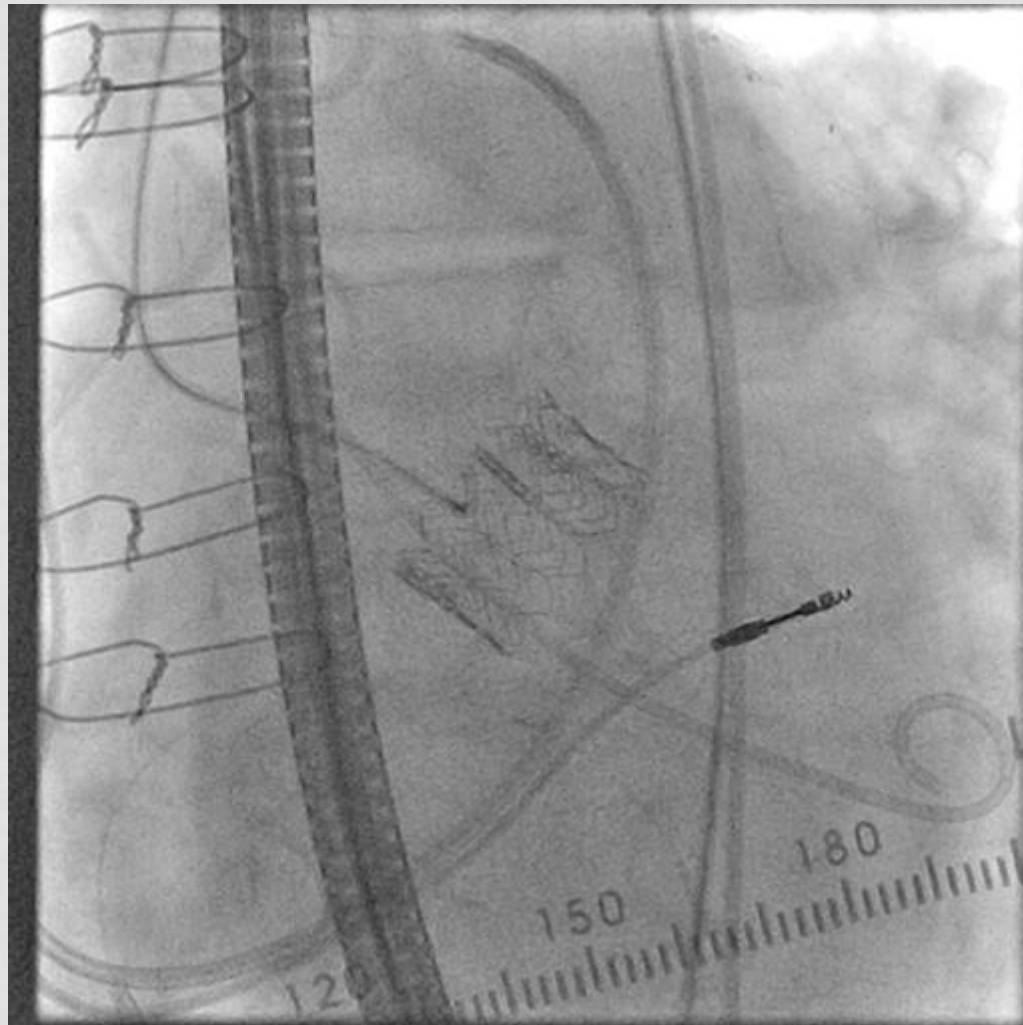
Patient developed severe hypotension and massive central AR noted on TEE



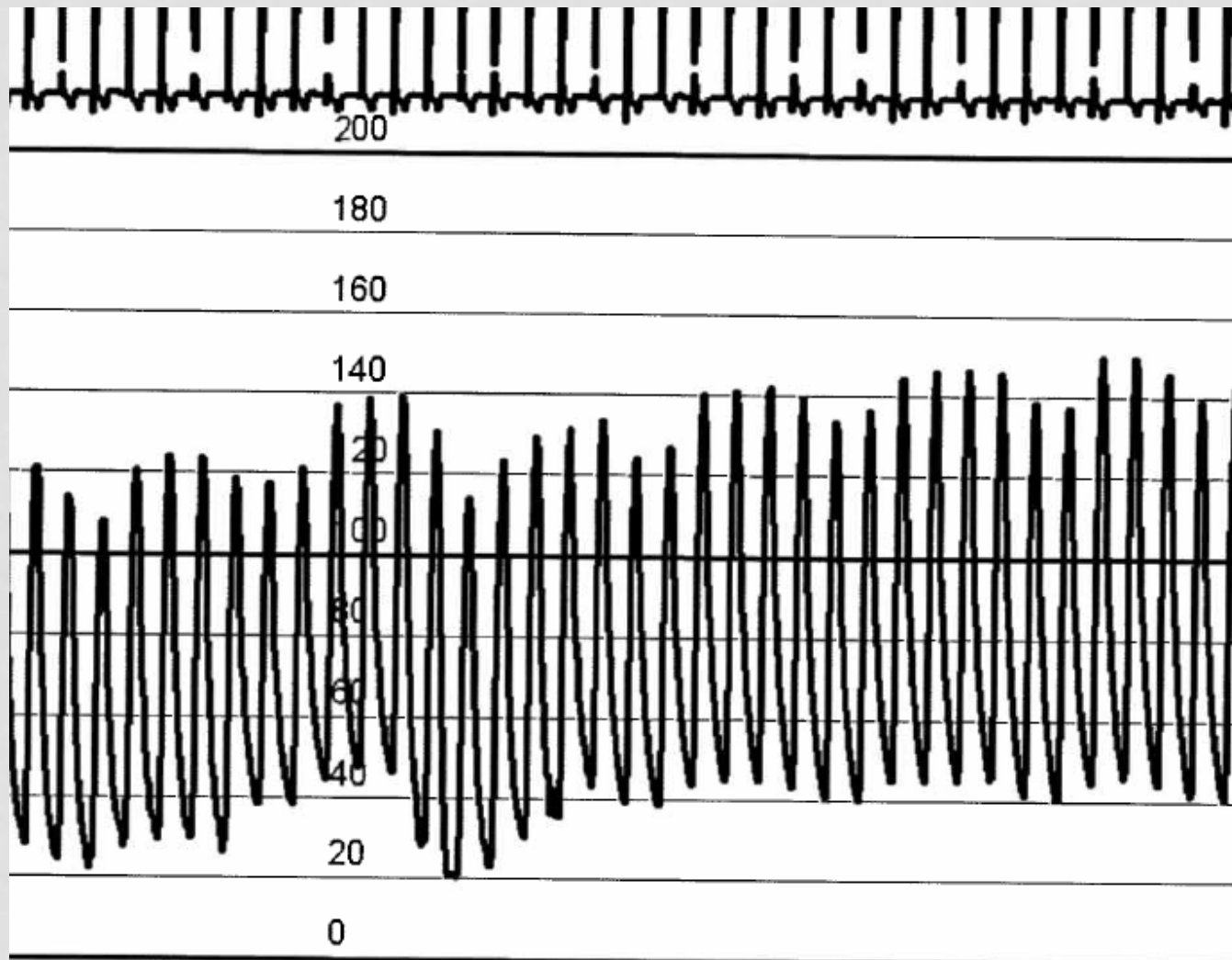
LV/Ao pressures after deployment



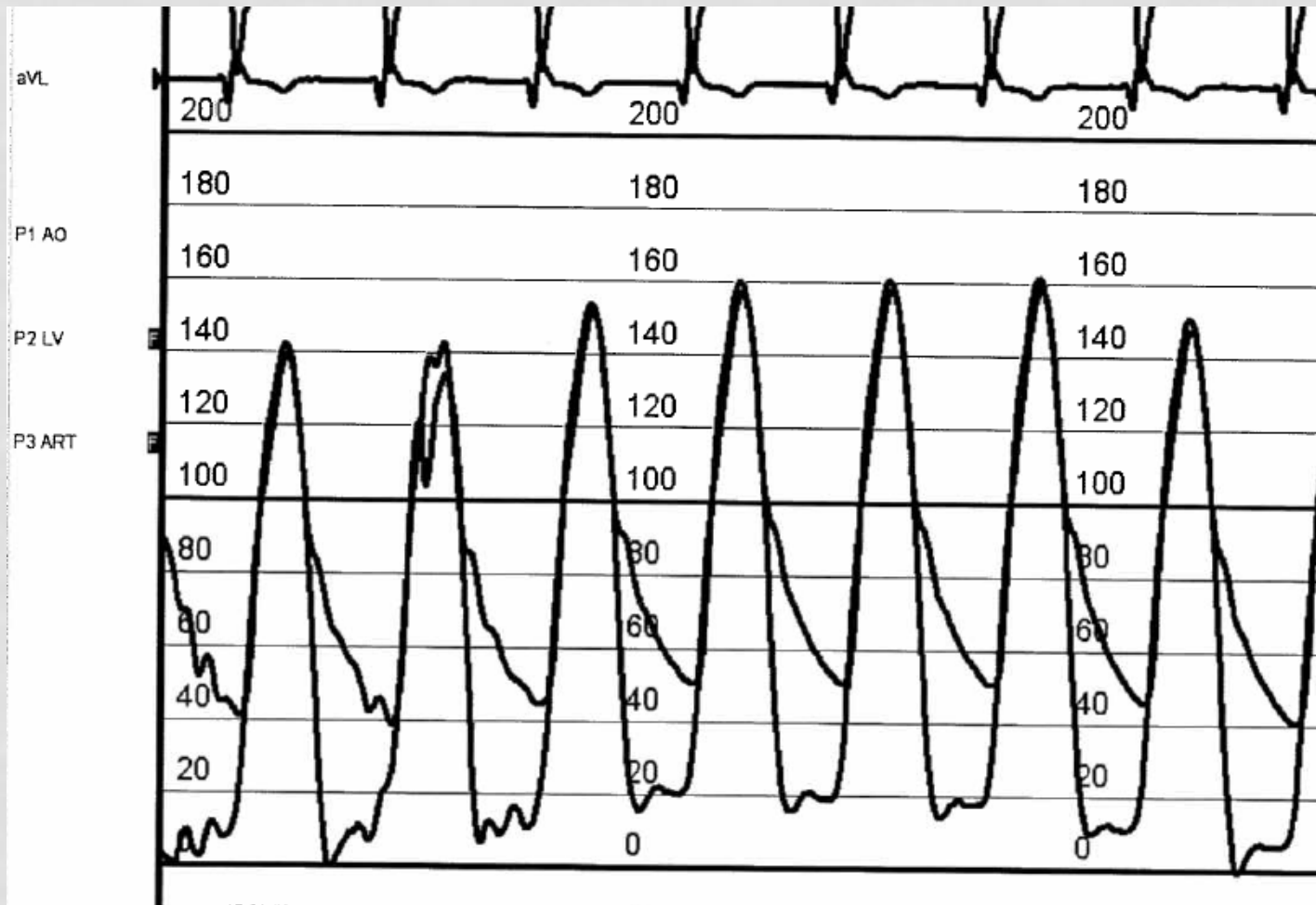
Multipurpose catheter manipulation of implanted valve



Aortic pressure during and after catheter probing



LV/Ao pressures after AR resolved



Clinical Course

- AR was resolved after catheter probing with normalization of hemodynamics.
- Patient was discharge 4 days after TAVR with trivial AR on echo. All leaflets moving normally.

TEACHING POINTS

- Massive central AR is uncommon after TAVR, and can be related to valve dysfunction, usually due to a “frozen” leaflet
- Catheter probing of the “frozen” leaflet can restore normal excursion and avoid the need for a second valve.