



# *TAVR optimization:*

*Patient/device selection and procedural perfection*

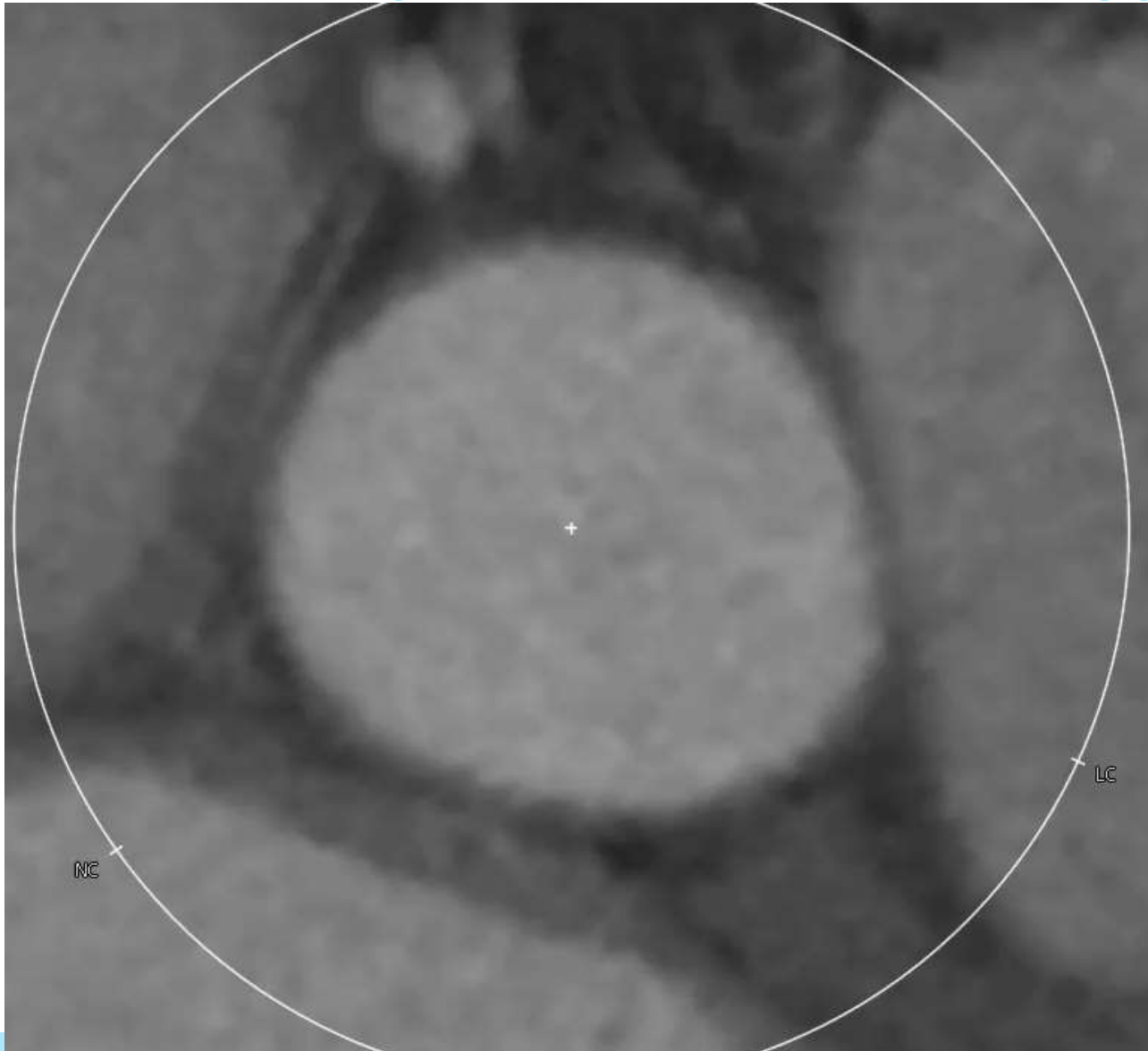
*Kentaro Hayashida MD, PhD, FESC*

*30<sup>th</sup>, April 2018, TCTAP 2018*

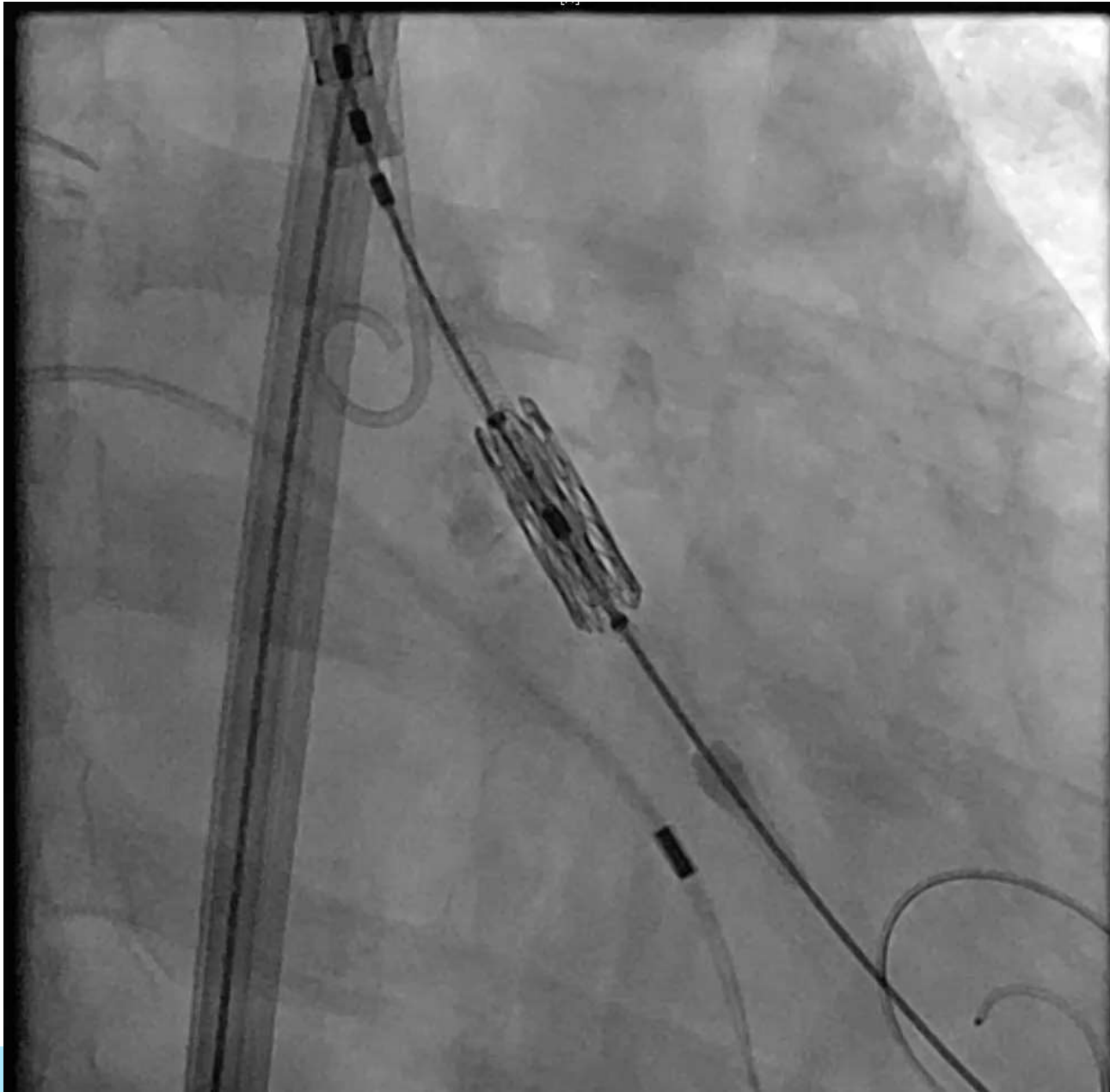
# Sapien 3 is the 1<sup>st</sup> choice except for...

- Narrow STJ
- Risk of rupture (bulky leaflet/ annular/ LVOT calcification)
- Risk of coronary occlusion (low coronary, bulky calcification)
- Too poor ilio-femoral access

# Case 2: Bicuspid aortic valve (Type 0)

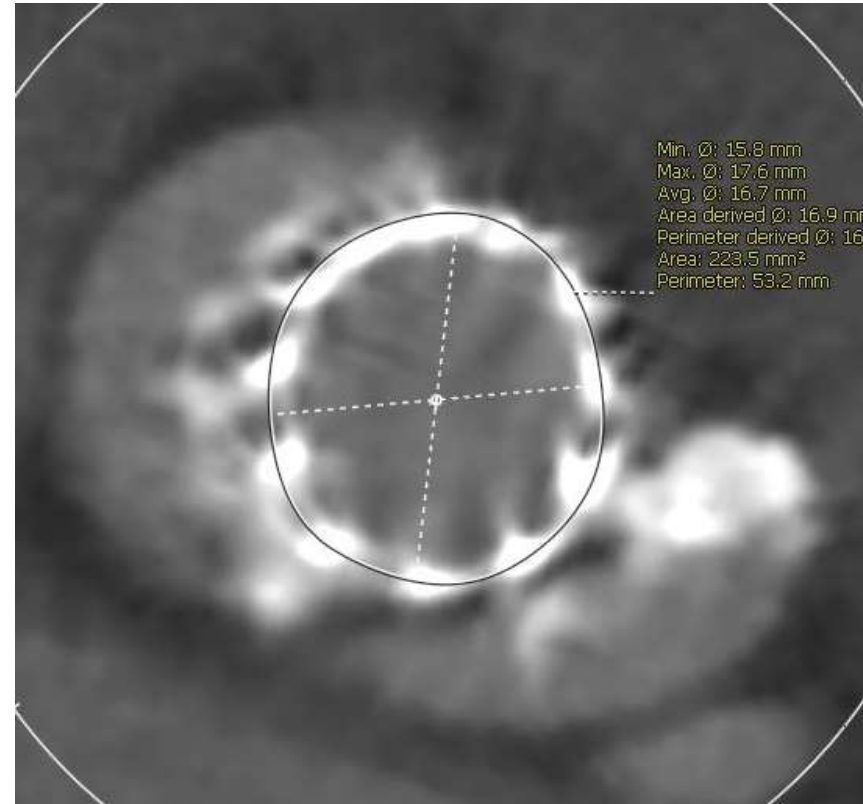


# TAVI with SAPIEN3 20mm (nominal volume)



# Post-procedural MDCT

- pVel 6.0 >> 3.8 m/s
- NYHA 4 >> 2
- Discharge at day 4
- iAVA 0.58

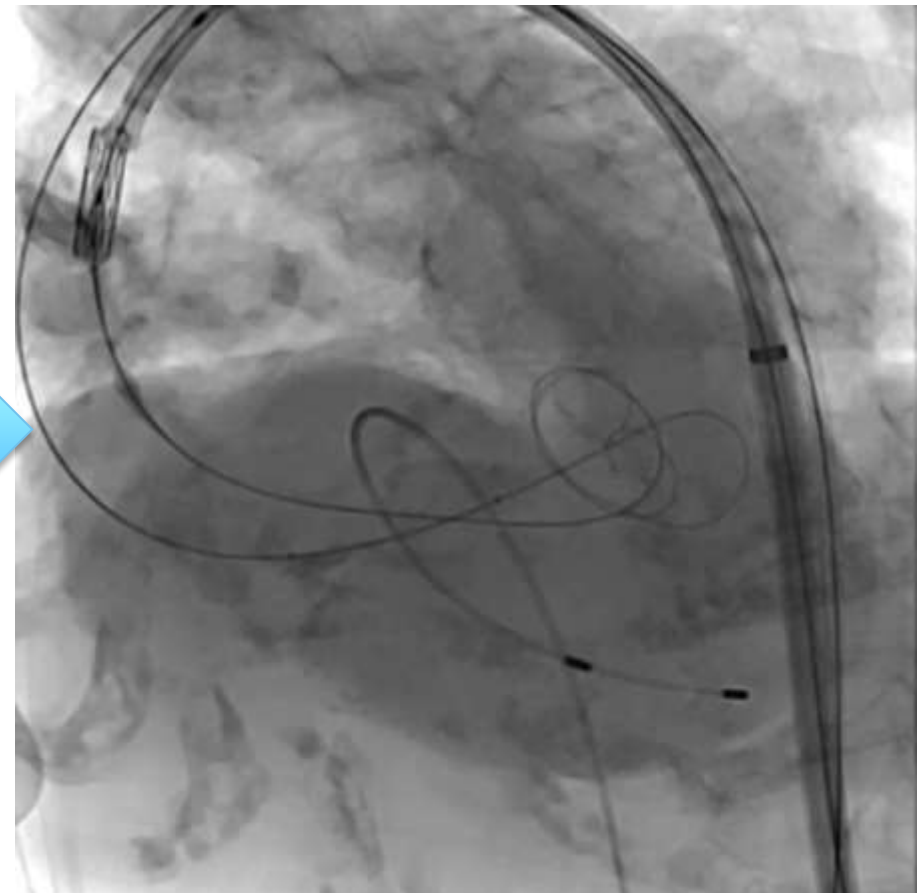
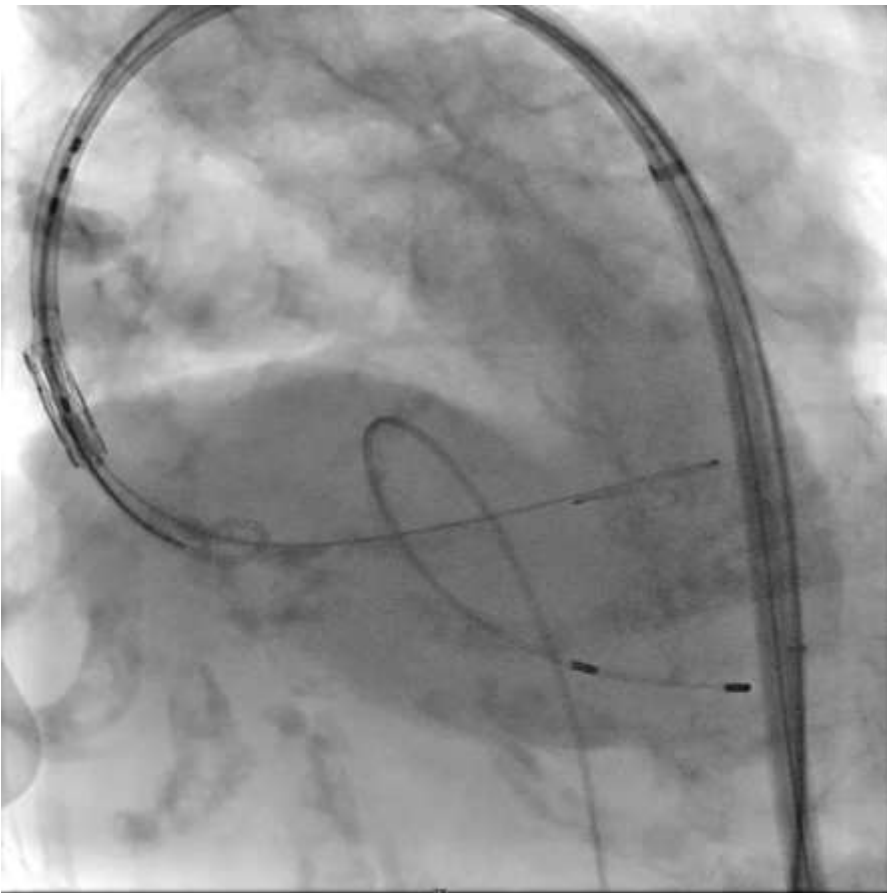


# Case 3: Severe kyphosis



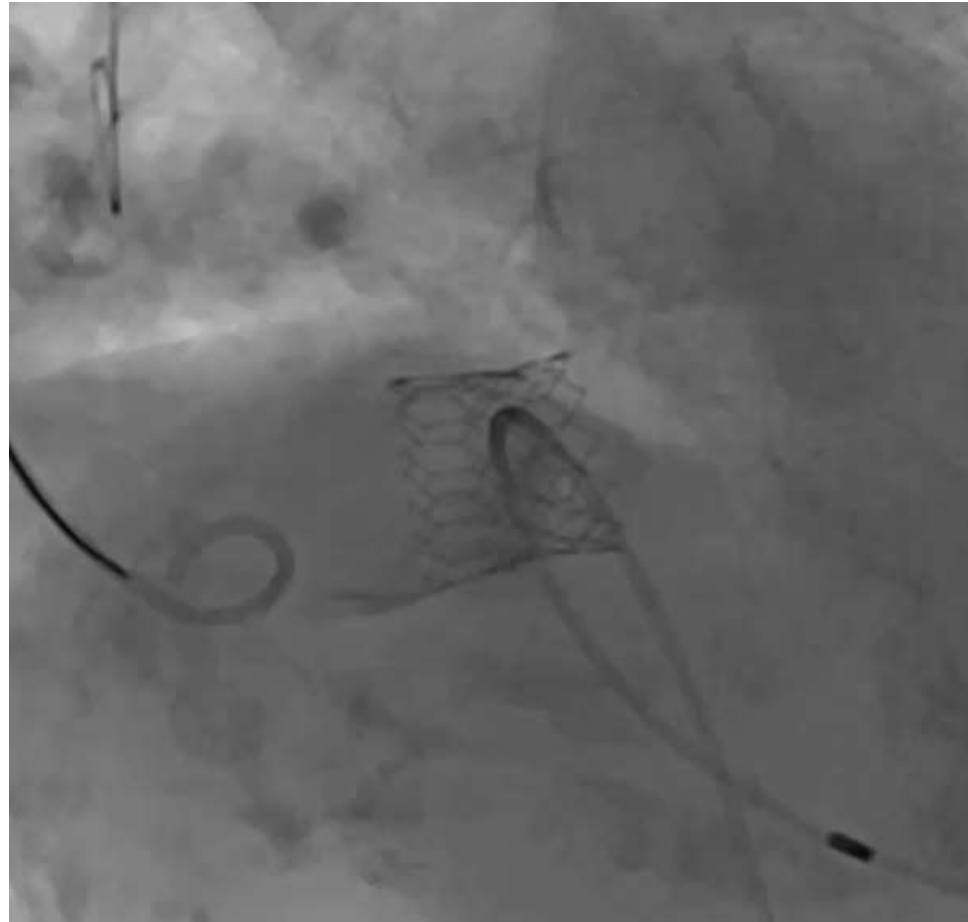
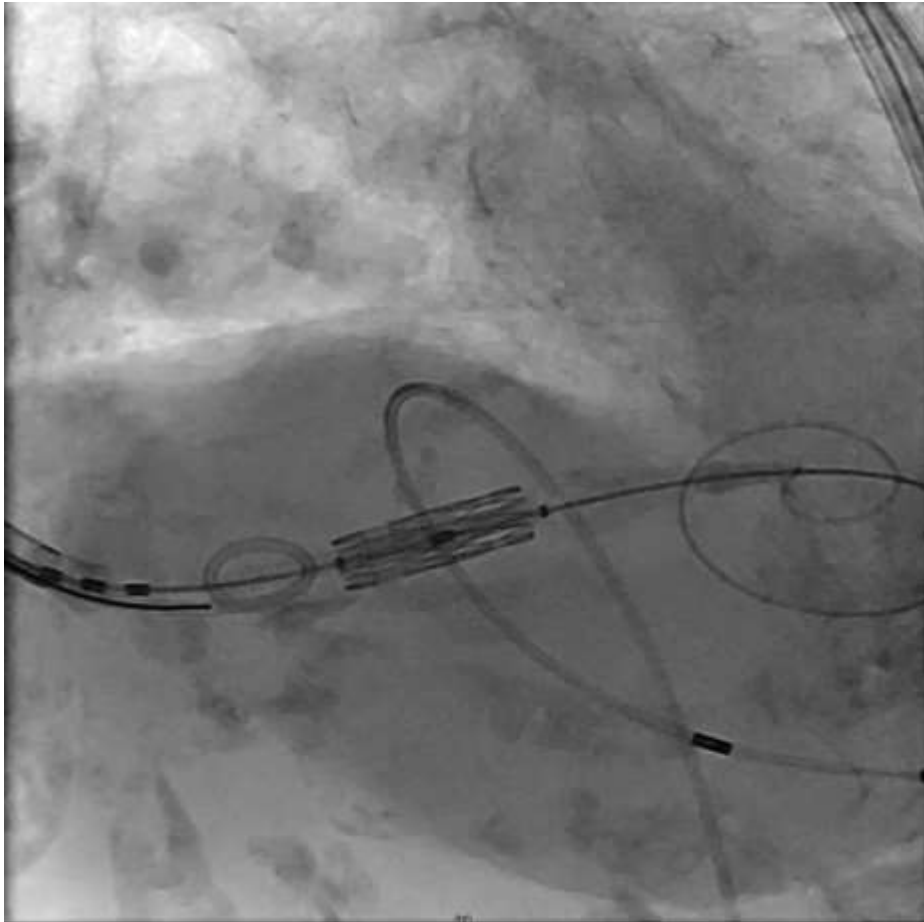
*Very horizontal and kinked aorta*

# Balloon dilatation via the contralateral access



The valve could not pass directly

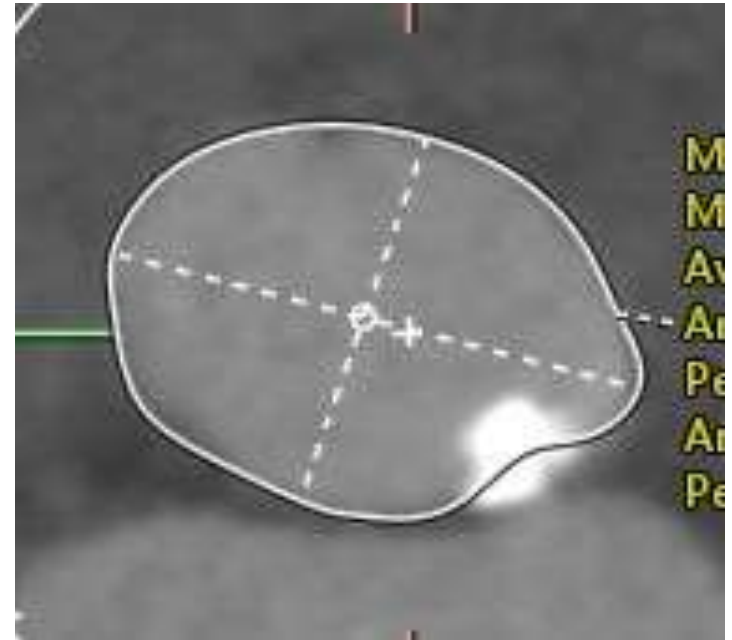
# Valve deployment



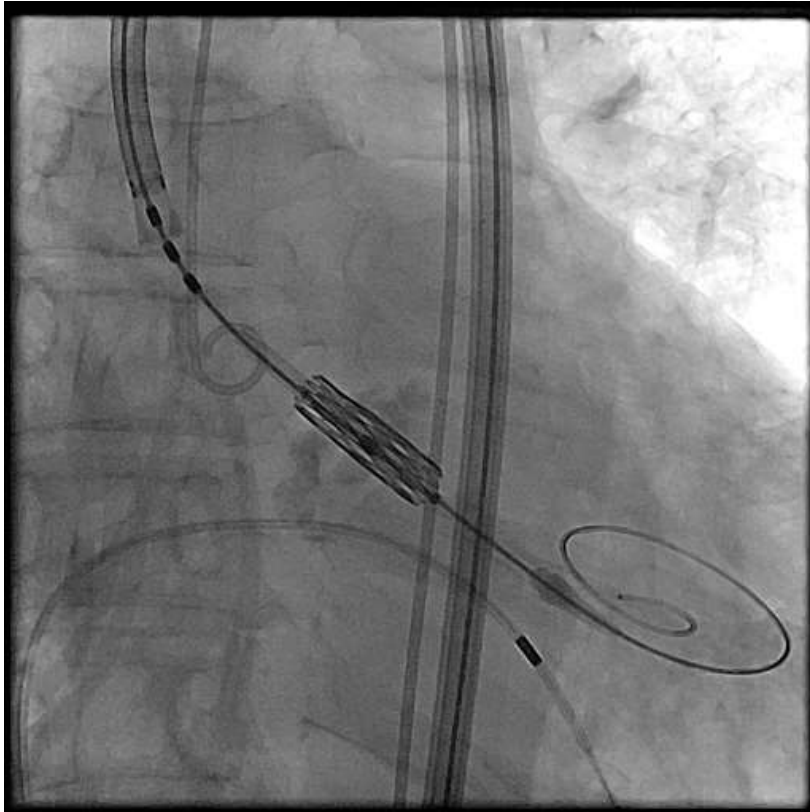


# annulus, valve size

- Annulus
  - CAAD : 22.3 mm (T)
  - Area : 391.9 mm<sup>2</sup> (T)
  - $D_{\text{long}} \times D_{\text{short}} : 27.3 \times 19.3$
  - TTE : 18 mm
- valve size
  - 23 mm S3
  - Ratio(23mm): Area 406/area = 1.04



# S3 Implantation

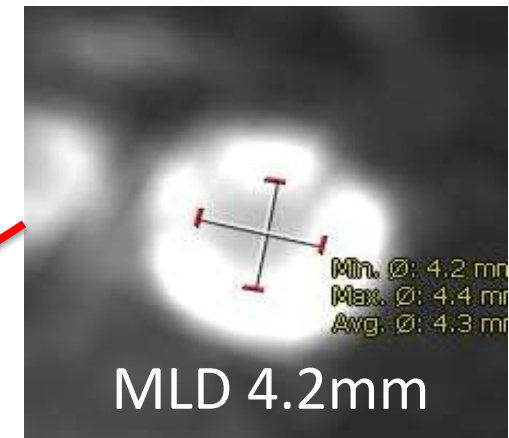
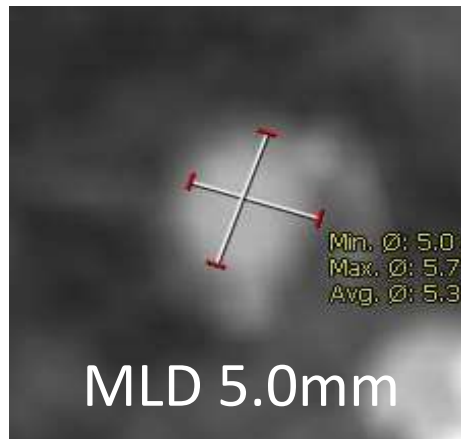
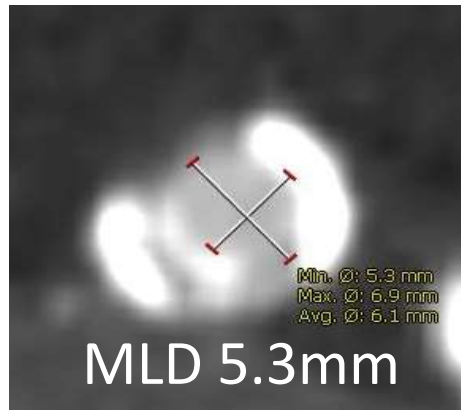


Mild AR

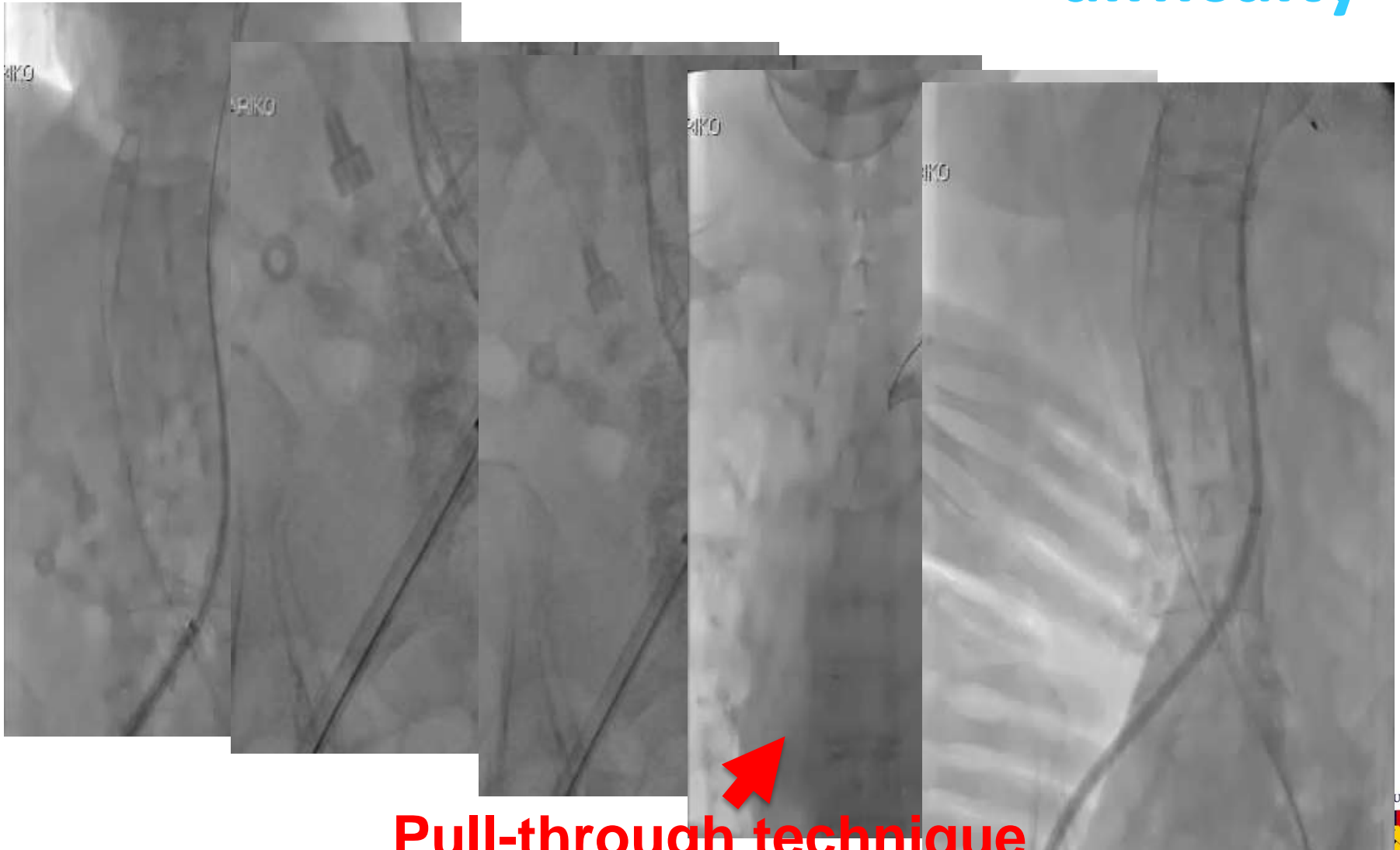
# Postprocedural CT



# Case 5: 87F, poor access

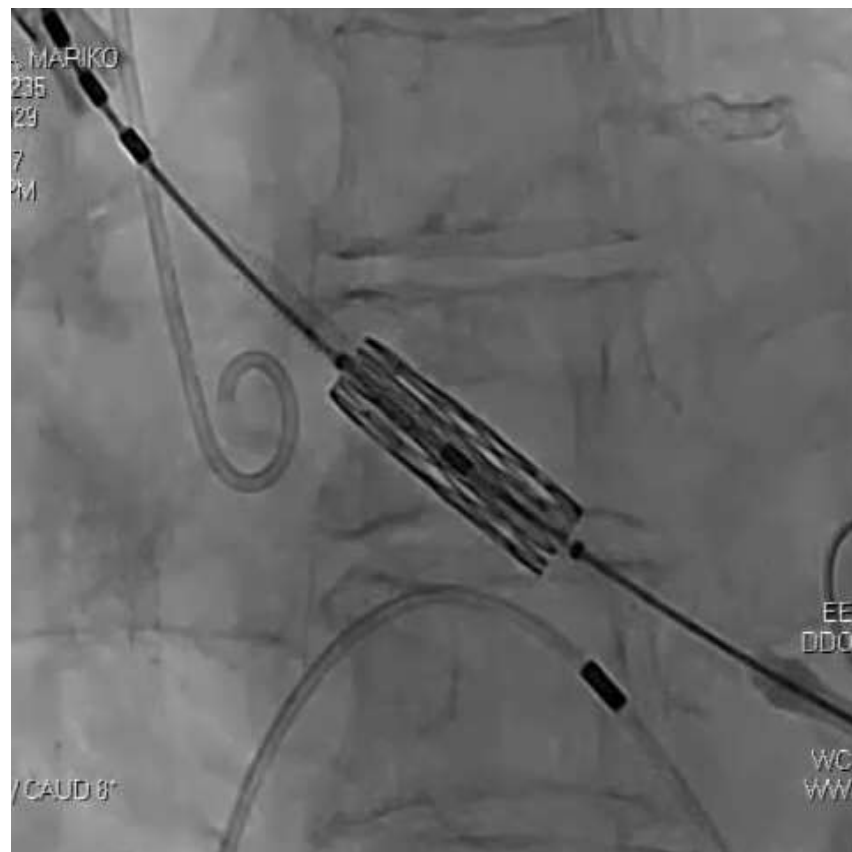
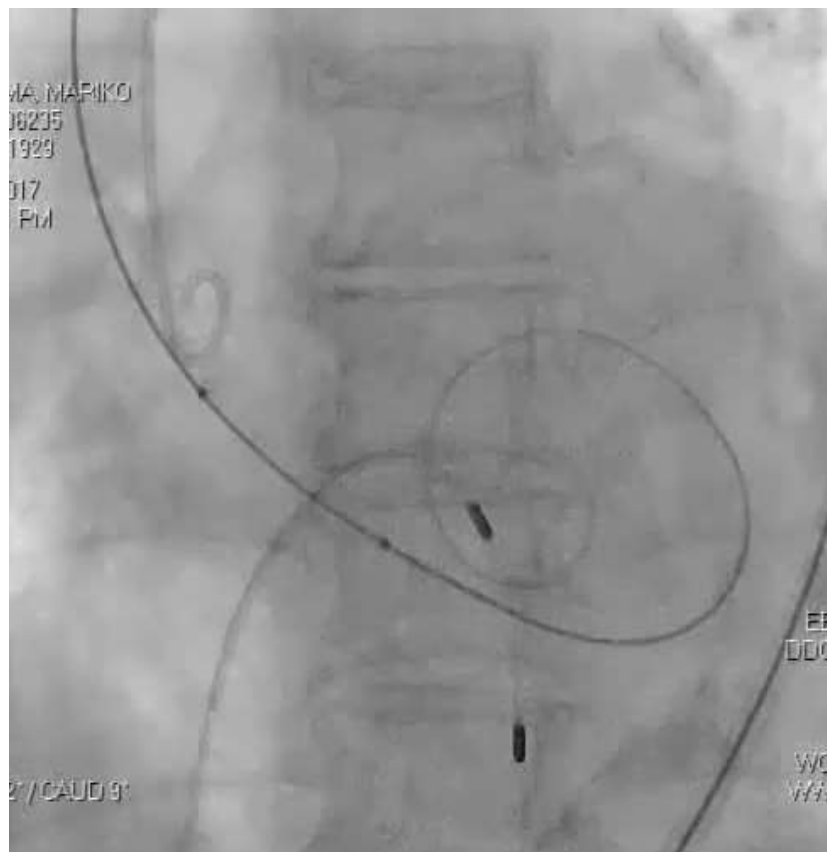


# Management of e-sheath delivery difficulty



**Pull-through technique**

# Valve deployment



Successfully implanted without complications



# Keio experience: 587 cases (Oct 2013 - April 2018)

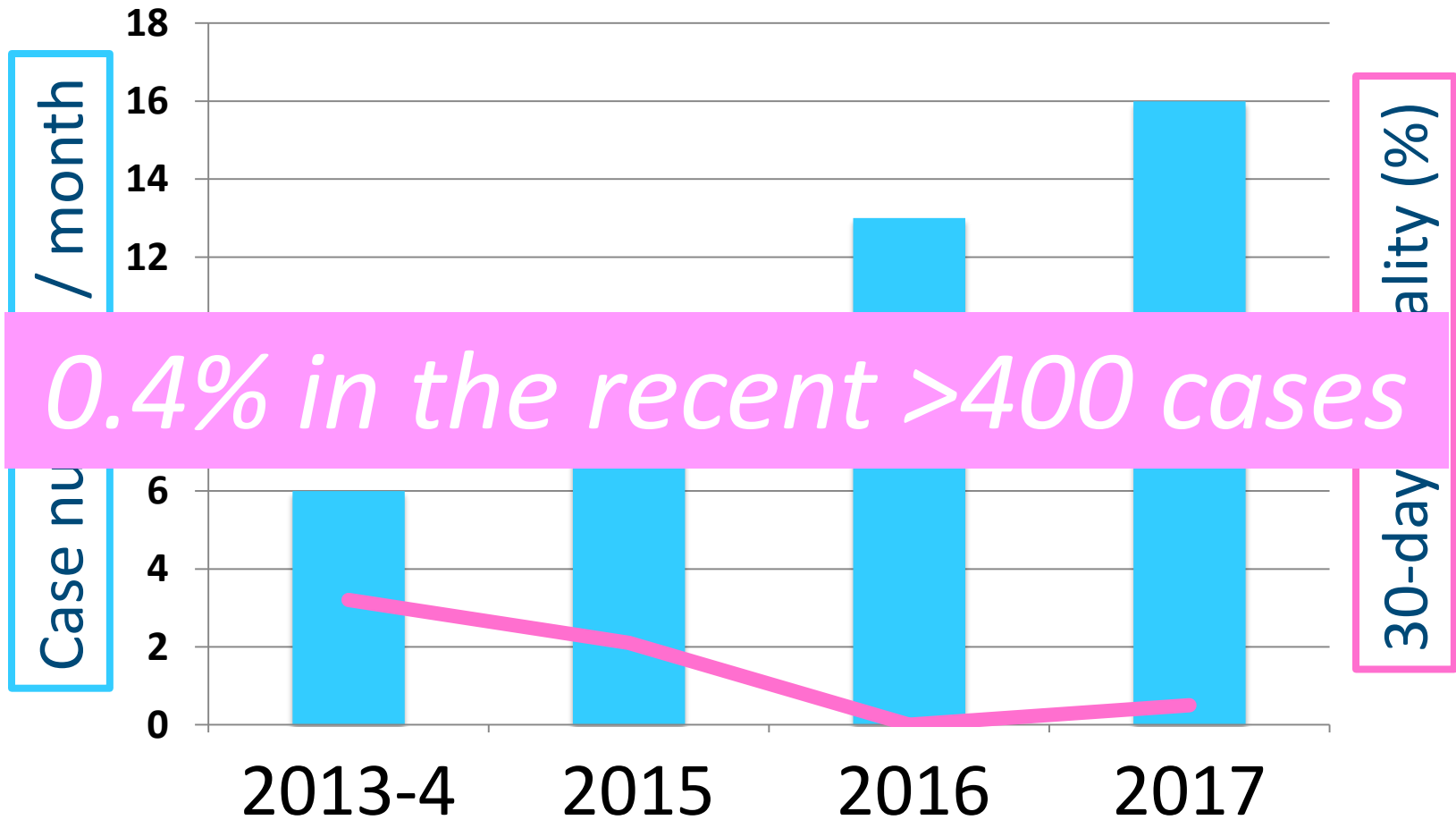
Sapien XT: 219    CoreValve: 15  
Sapien 3: 288    Evolut R: 46

Lotus:18

Portico:1

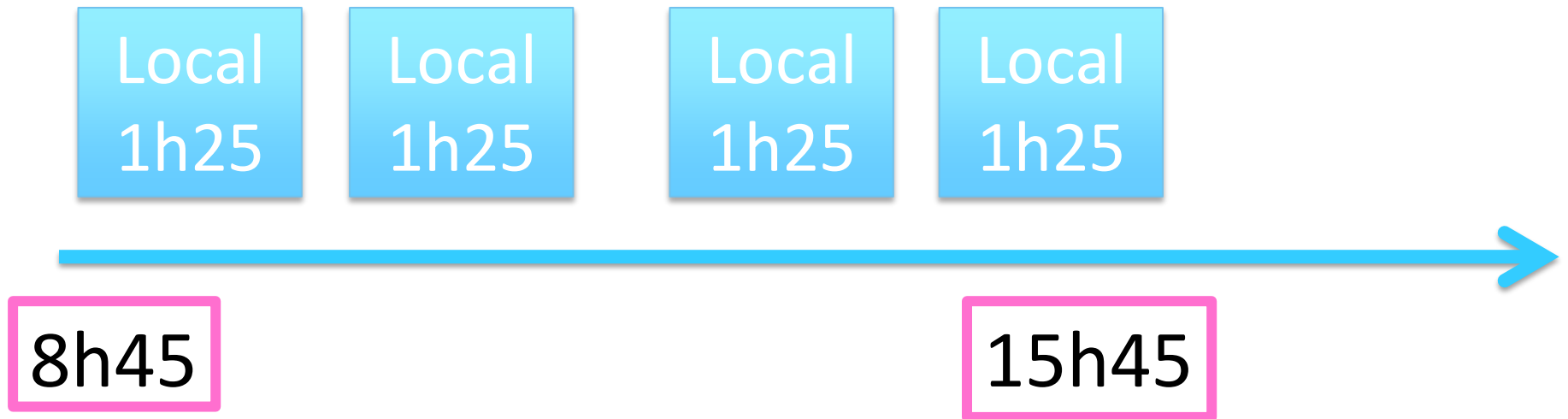


# 30-day mortality and procedural volume





# Optimization of procedure



*4 case/day (26<sup>th</sup>, July, 2016)*

# Introduction of S3 provides us...

- More simplified patient preparation
- LA as default due to less complication
- Direct insertion of the sheath
- Skip pre-dilatation → less chance of collapse
- Less PVL and less need for TEE
- No iliac angiography
- Less Proglide failure
- Bicuspid valve
- High success rate, low mortality



# PCR

■ tokyo valves

26<sup>th</sup>-27<sup>th</sup> March 2016 - Tokyo, Japan



**PCR**  
■ tokyo valves



*March 30<sup>th</sup> – April 1<sup>st</sup>, 2018*

*683 active participants!!*

*February?? In 2019*



#PCRtokyo

