

How would I treat ?

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Conflicts of Interest

Speaker's name : Gunasekaran, Sengottuvelu, Chennai

I do not have any potential conflict of interest

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Background

- 88yr old lady, good premorbid, walks with stick

Past medical history:

- Osteoarthritis of both knee, gout

History of present illness:

- Congestive heart failure with recurrent admission
- NYHA class III
- No angina, no syncope

Echocardiogram:

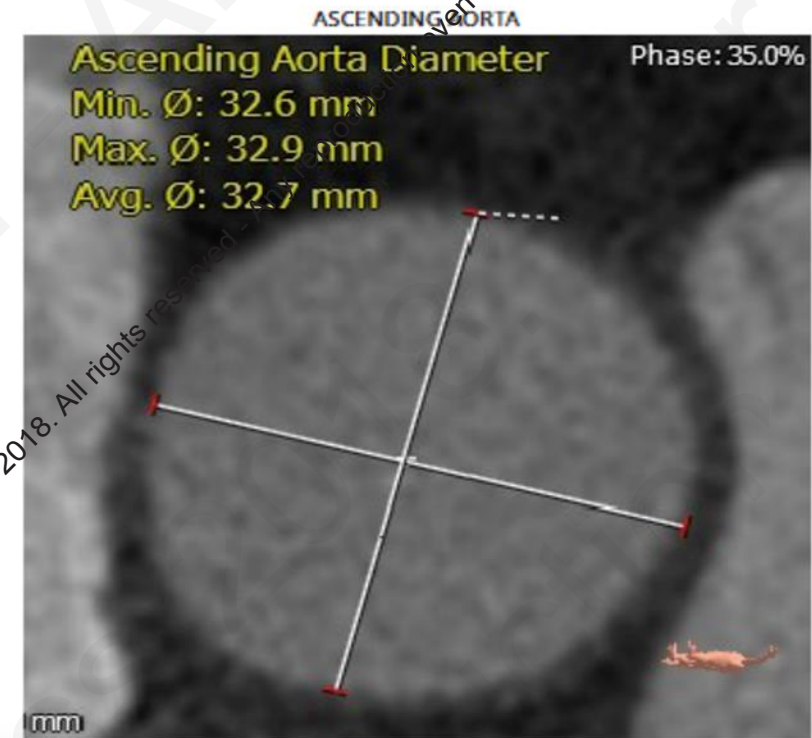
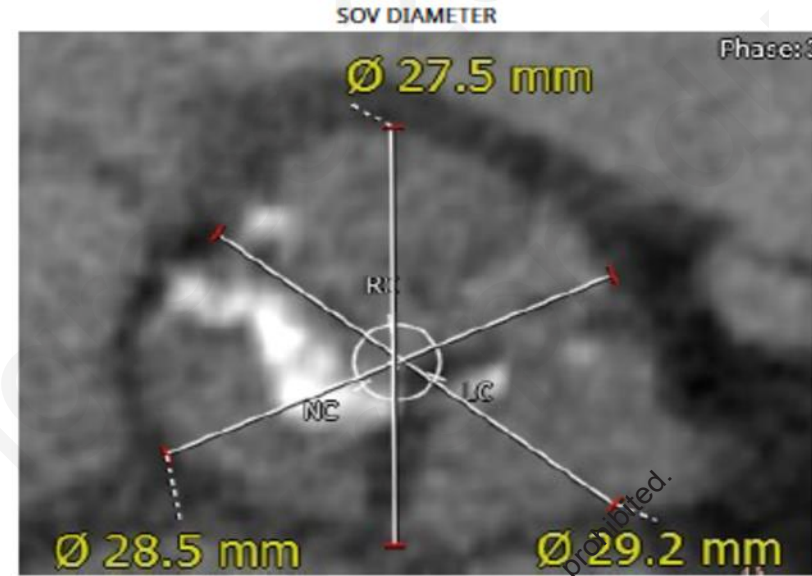
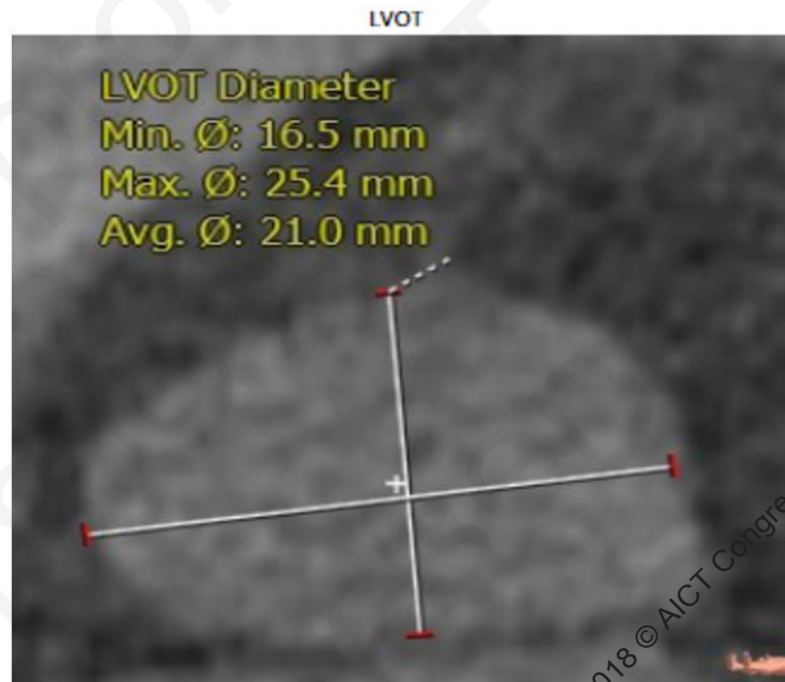
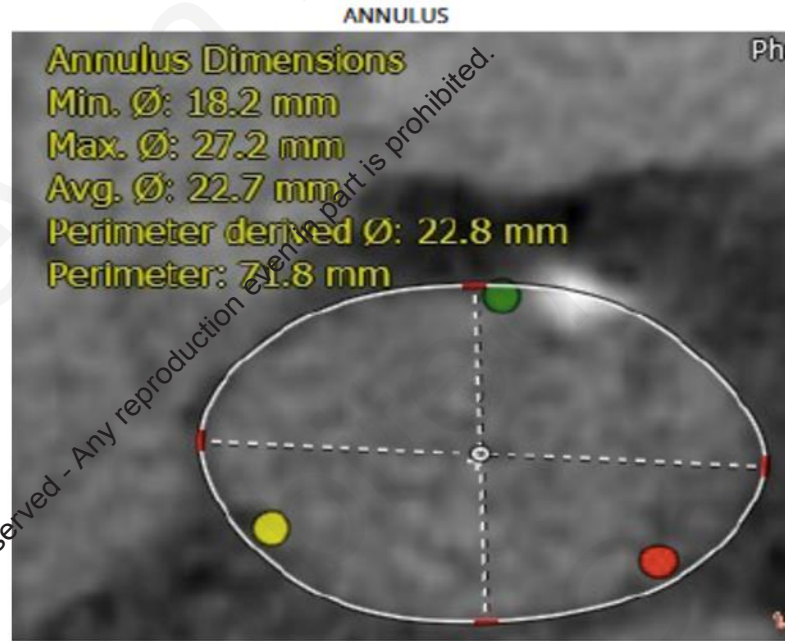
- Heavily calcified AV, severe AS (AV peak/mean gradient 103/60mmHg, AVA 0.52cm²), trivial AR;
- Calcified mitral annulus, calcified & thickened MV, no MS (mean PG 3mmHg), moderate MR;
- Mild TR, RVSP 46 mmHg;
- LVH with preserved LV systolic fx, EF 50-55%; Normal RV systolic fx & size

Background

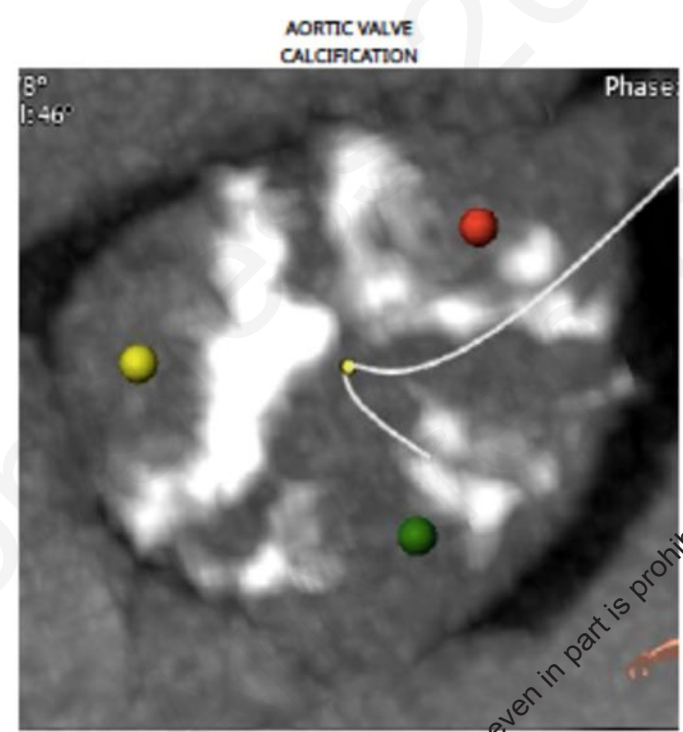
- Coro on 6/6/18: distal LAD minor plaque, mid RCA 20%, normal LM and LCx
- STS score for SAVR:
 - 5.3% PROM
 - 20.9% M&M

Heart Team meeting:

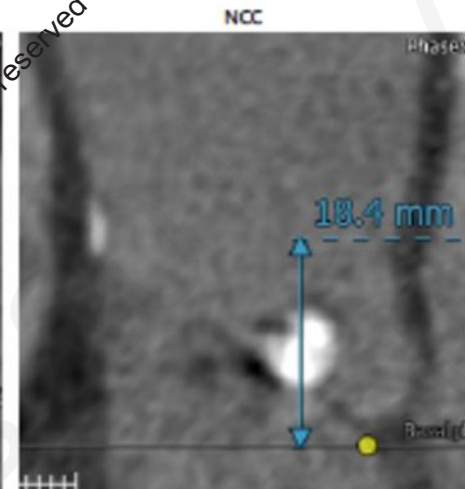
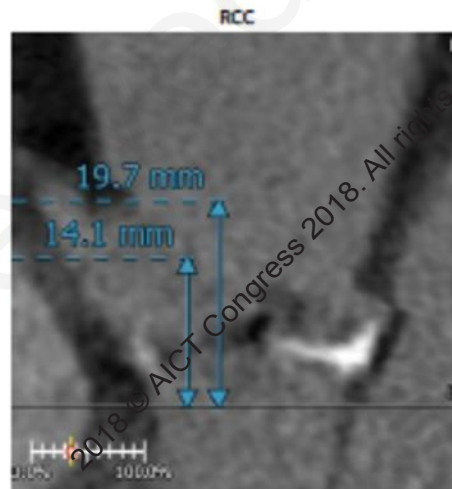
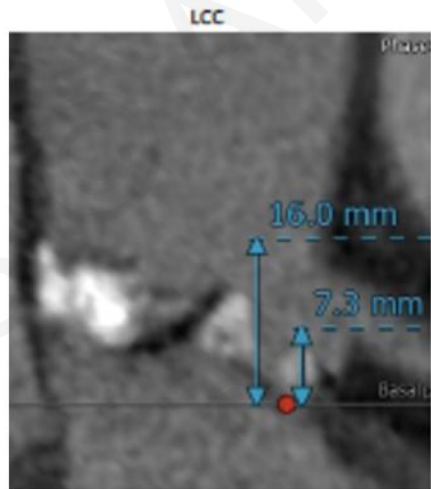
- Suggest TAVI instead of SAVR in view of old age (ie 88 yr old).
- Plan to have TAVI by using Medtronic Evolut-PRO system



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SINUS HEIGHT



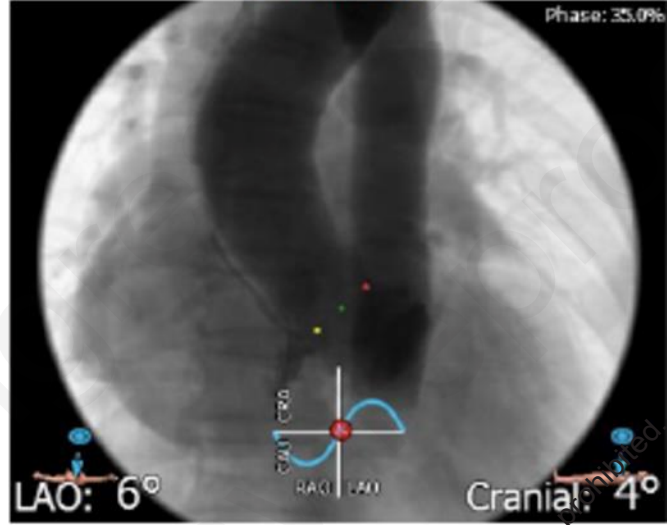
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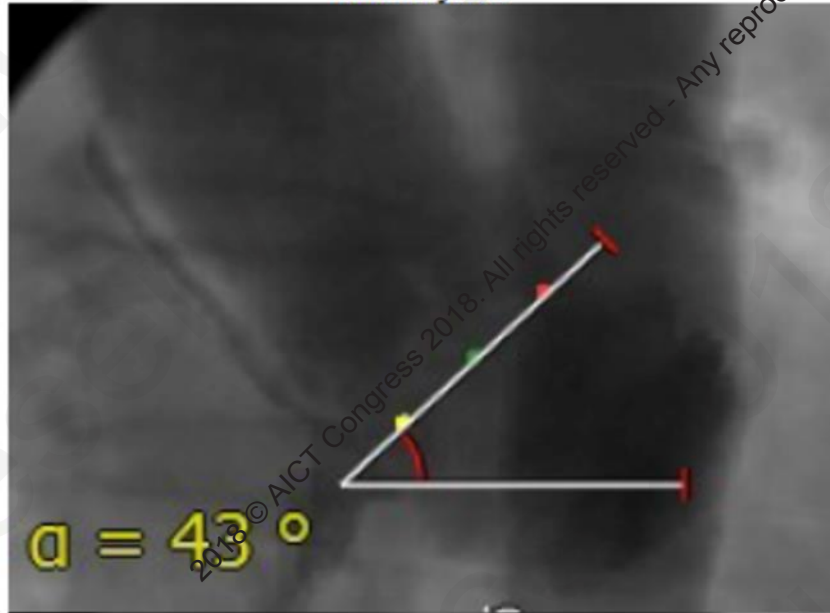
AORTIC ROOT



IMPLANTER'S VIEW



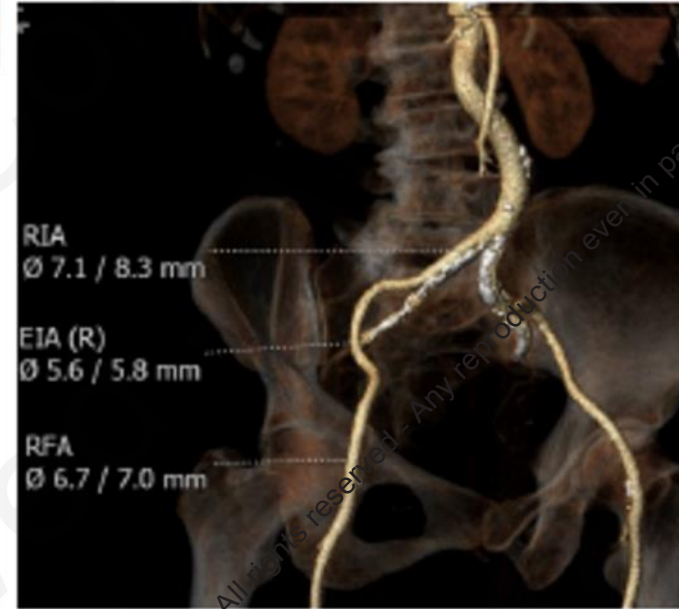
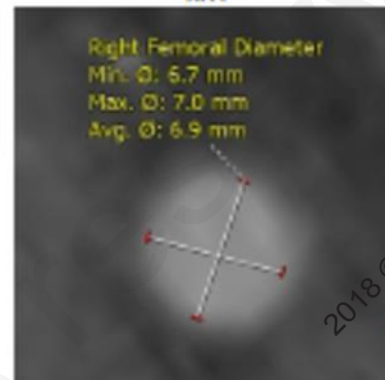
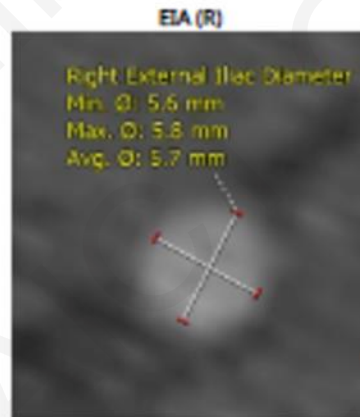
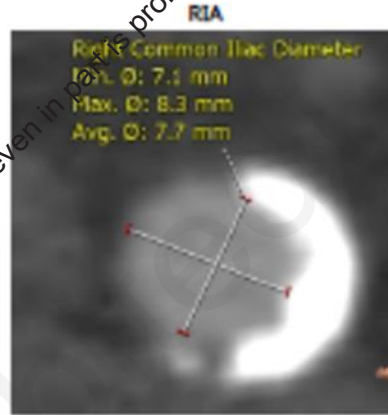
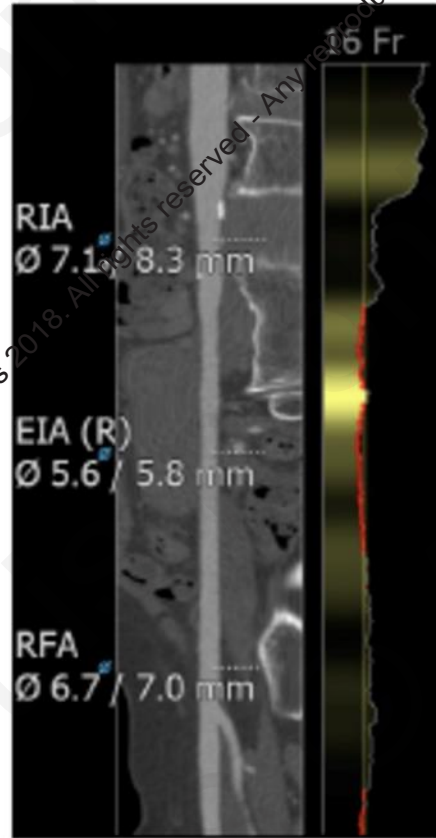
Annular Angulation



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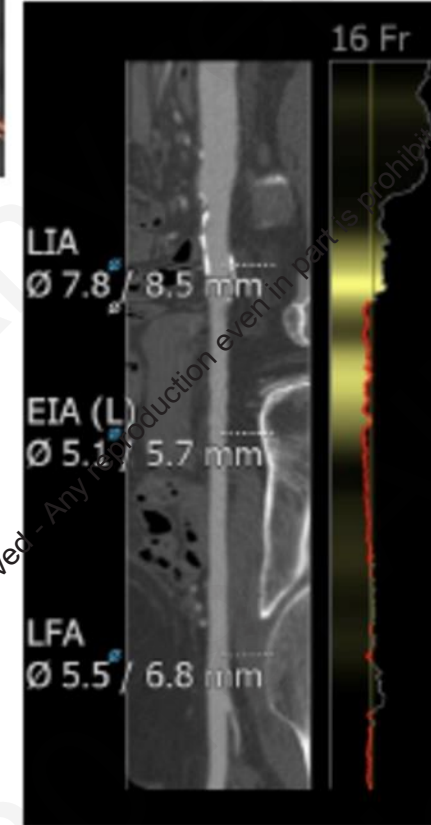
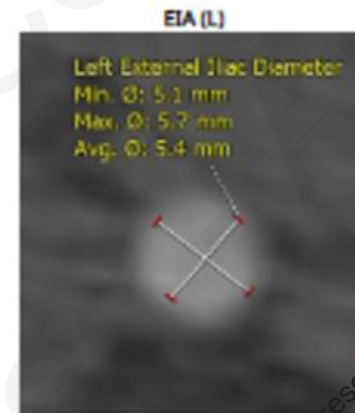


Femoral Access - Right



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Summary

- 88 yrs old, severe symptomatic AS, normal LV function with mod MR, moderate PAH, no significant CAD
- Intermediate risk
 - Heart team decided for TAVI
 - TAVI is the clear cut choice

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Interpretation of CT

- Left coronary height – 7.2
- Sinus diameters appear just adequate
- Annulus 18.2 x 27.2
- LVOT 16.5 x 25.4
- Heavily calcified AV
- Aortic arch, LV – AO angle appears to be ok
- Calcified iliacs

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Challenges

- Low left coronary height
- Sinus diameters appear just adequate
- Heavily calcified AV
- Calcified iliacs

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My approach & strategy

- Gen anaesthesia and TEE
- Cerebral protection with Sentinel
- Left transfemoral access, Preclosure with 2 proglides,
- 16 F sheath, then use inline sheath
- BAV with 16 mm balloon
- Measure leaflet length, aortography during BAV
- Perimeter -71.8, perimeter based diameter-22.8
- 26 mm Evolut Pro

Should left coronary be protected ?

- Even though coronary heights are low, sinuses are not too small
- Based on the angiography during BAV – if the leaflets are pushed towards coronary
- Other aspects : Leaflet length, left coronary ostial diameter

If left coronary has to be protected

- Guiding catheter / guideliner upto the sinuses
- Choose atleast 18 mm length of stent.
- If LCA occludes stent proximally covering the THV struts.
- If LM is short, stent into LAD
- If it does not occlude, stent can be removed



Ensure adequate hardware availability

Sentinel device

Predilatation balloons

Guide catheter, guideliner, stents

Covered stents

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Preparation & procedure

- Deploy 26 mm slowly with target depth of 3-5 mm
- Wait for at least 10 min, consider post dilatation if more than moderate PVL(very unlikely as Evolut PRO is expected to have low PVL due to the cuff)

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Thank You

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