Η απεικόνιση της φυσιολογικής αορτικής και η παθολογία της στο 3D

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No conflicts of interest
Which views?

- TOE is superior to TTE: better spatial resolution $\rightarrow$ image quality
- SAX and LAX views are used
- Rarely apical 5C and 3C views
Data acquisition

- Biplane imaging
- Live 3D
- Focused 3D zoom
- Full volume
- Focused 3D zoom with colour
- Full volume with colour
How to display the AV

Live 3D zoom
Ideal image...

Diastole

RCC

AO view

Systole
Usual image...
Same patient in 2D
3D zoom vs Live 3D
Practical use of 3D in every day clinical practice

- Anatomy of the valve and surrounding structures

- LVOT area for SV calculation in difficult AS cases – AV planimetry

- Aortic annulus before TAVI when CT images are unavailable or of bad quality

- Mechanism of AR – assessment of severity (discrepancy between severity assessment by 2D and other findings)

- Prosthetic aortic valves
Anatomy – nice pictures
Anatomy – not only nice pictures
Unlimited data manipulation options
LVOT area for SV calculation
LVOT area for SV calculation
AVA planimetry

Annulus area before TAVI

Mechanism of AR
Mechanism of AR
Mechanism of AR – 3D
mechanism of AR
mechanism of AR
?mechanism of AR
Prosthetic valves – paravalvular leak
Planning the procedure
3D ERO
Guiding the procedure
Guiding the procedure
Guiding the procedure
Final result
During TAVR
During TAVR
During TAVR
To sum up...

- AV is probably not the ideal valve to image with current 3D technology (drop out artefacts)
- 3D helpful for anatomy
- Might help in challenging AS cases and during TAVR
- Very helpful in delineating the mechanism of AR
- Extremely helpful for planning and guidance of paravalvular leak closure