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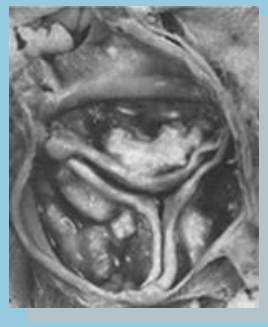
Symptomatic Moderate AS with LV Dysfunction



Marie-Annick Clavel, DVM, PhD, FAHA
Assistant Professor – Laval University (Quebec)

Eurovalve – Palermo - 2018, April 27th

Disclosures

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None

73-year-old symptomatic (NYHA functional class III) woman

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Dyspnea and recent hospitalization for heart failure

Hypertension: SBP:135 DBP: 71mmHg

Hyperlipidemia

Coronary artery disease - Previous infarct – CABG

Known mild AS

Echocardiography

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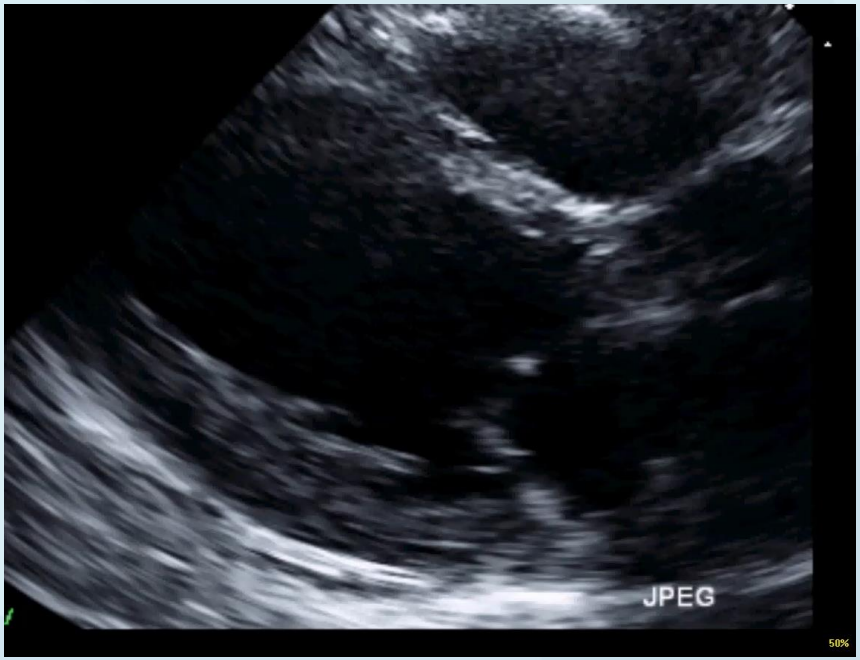
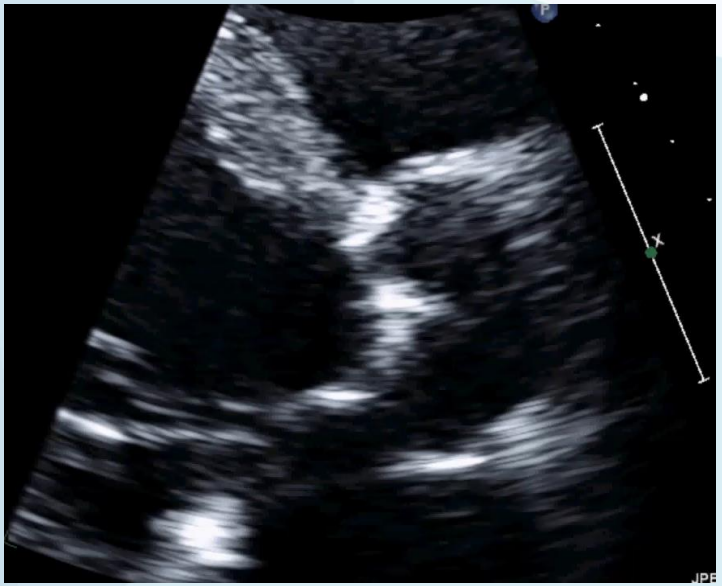
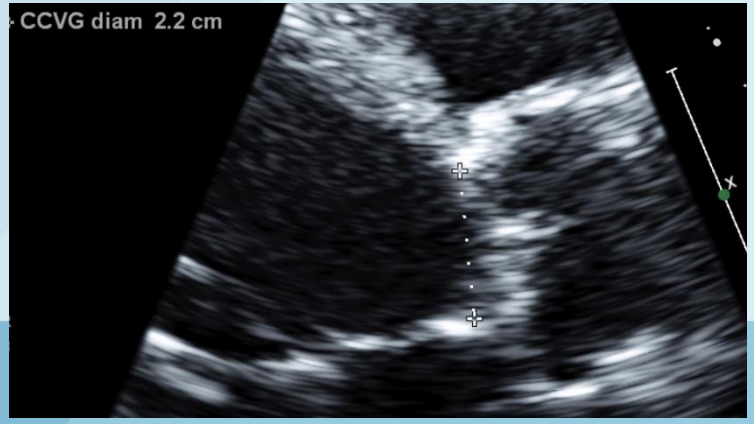




LVEF: 30%

LVOT diam: 2.2cm



Echocardiography: MG - AVA

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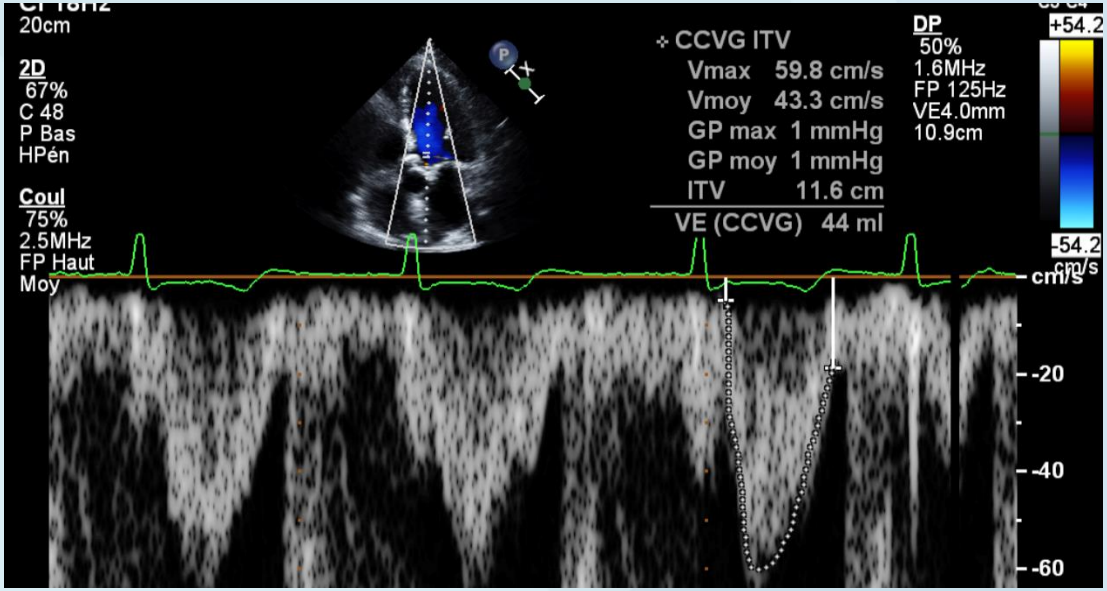

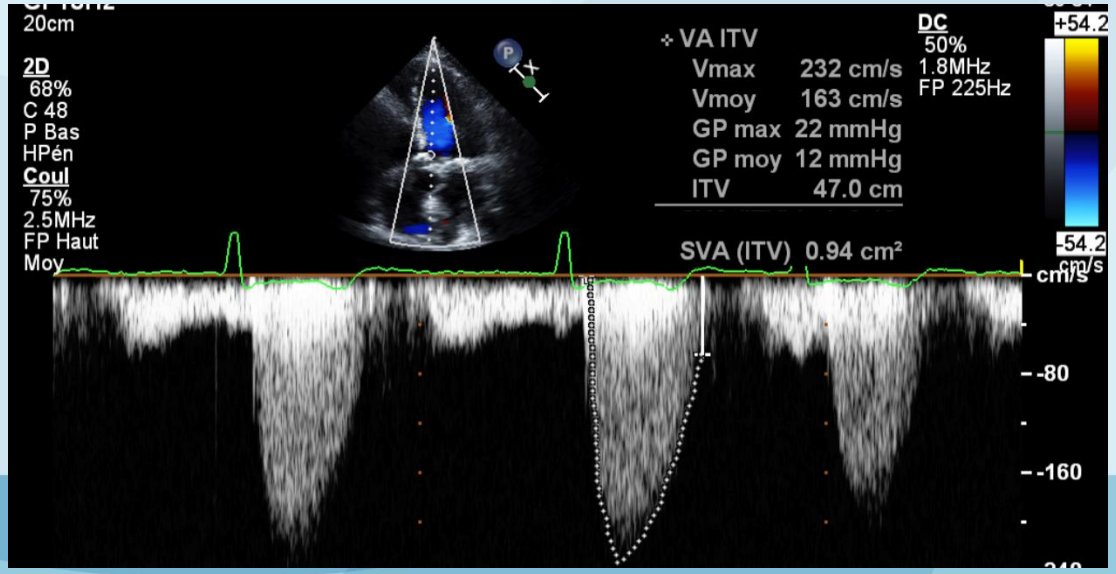

SV: 44ml

Vpeak: 2.32m/s
MG: 12mmHg

AVA: 0.94cm^2
AVAi: 0.55cm^2/m^2

Dobutamine stress echo: Peak

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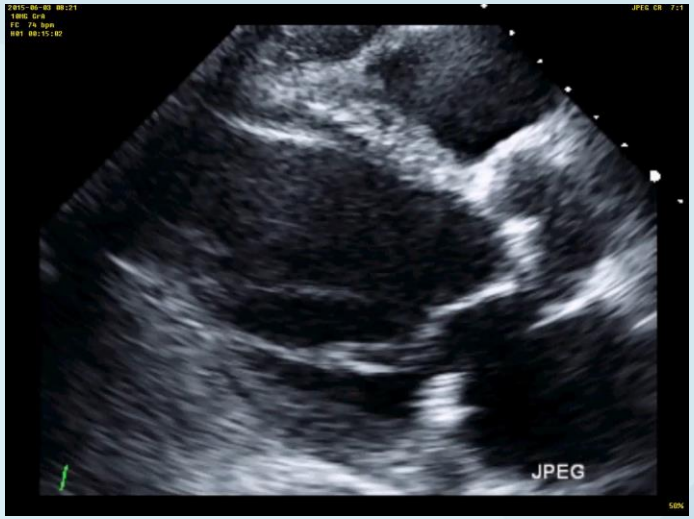

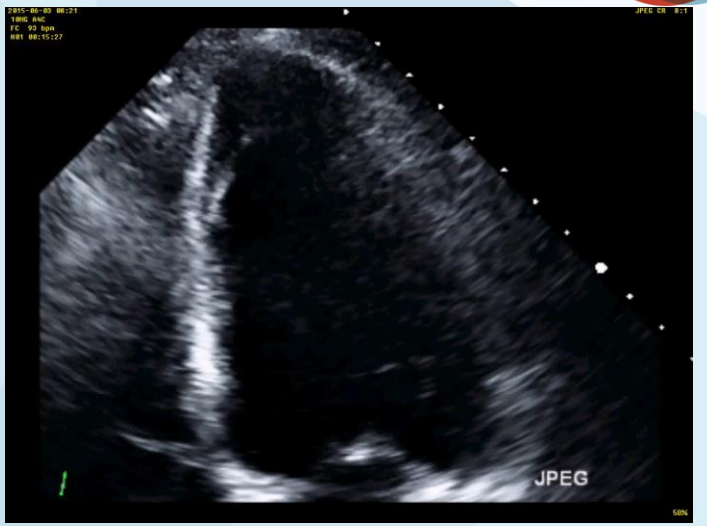

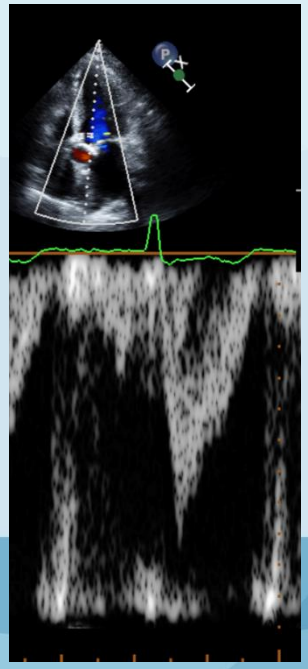

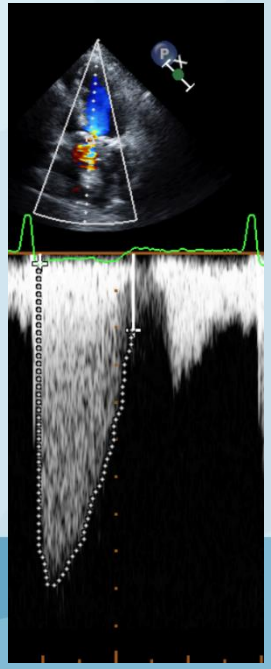

SV: 66ml
Vpeak: 2.66m/s
MG: 19mmHg

Moderate AS

AVA: 1.12cm^2
AVAi: 0.66cm^2/m^2
Qmean: 259ml/s

What would you do?

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1- Treat with ACE inhibitor and betablockers?

Already on both

2 - Add mineralocorticoid receptor antagonist?

Already on Spironolactone

3 - CRT?

QRS<130ms

4 - Ivabradine?

HR<70

5 - Left Ventricular assist device?

6 - Heart transplant?

Outcome of Patients with Moderate AS and Low LVEF

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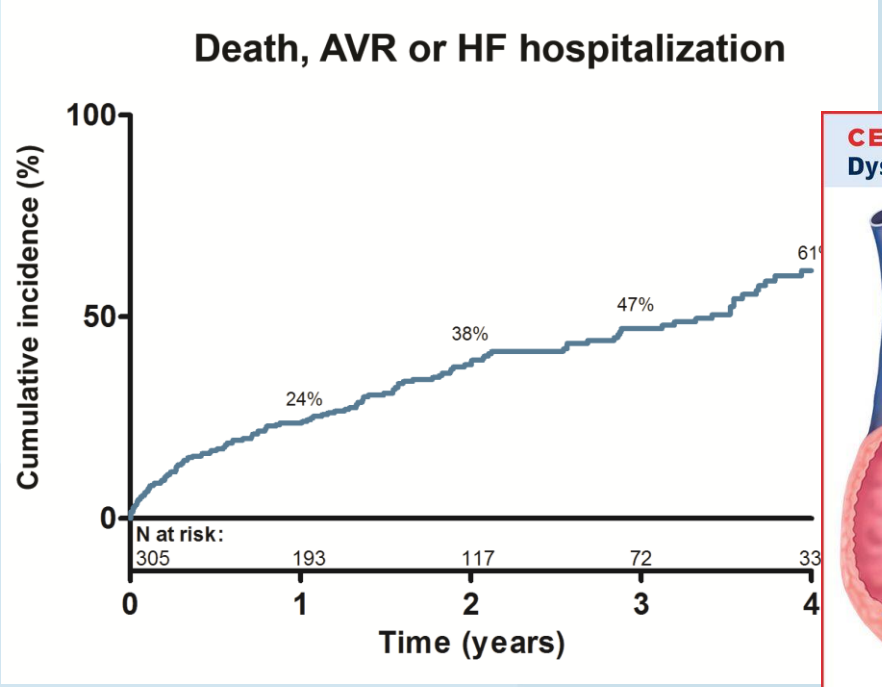
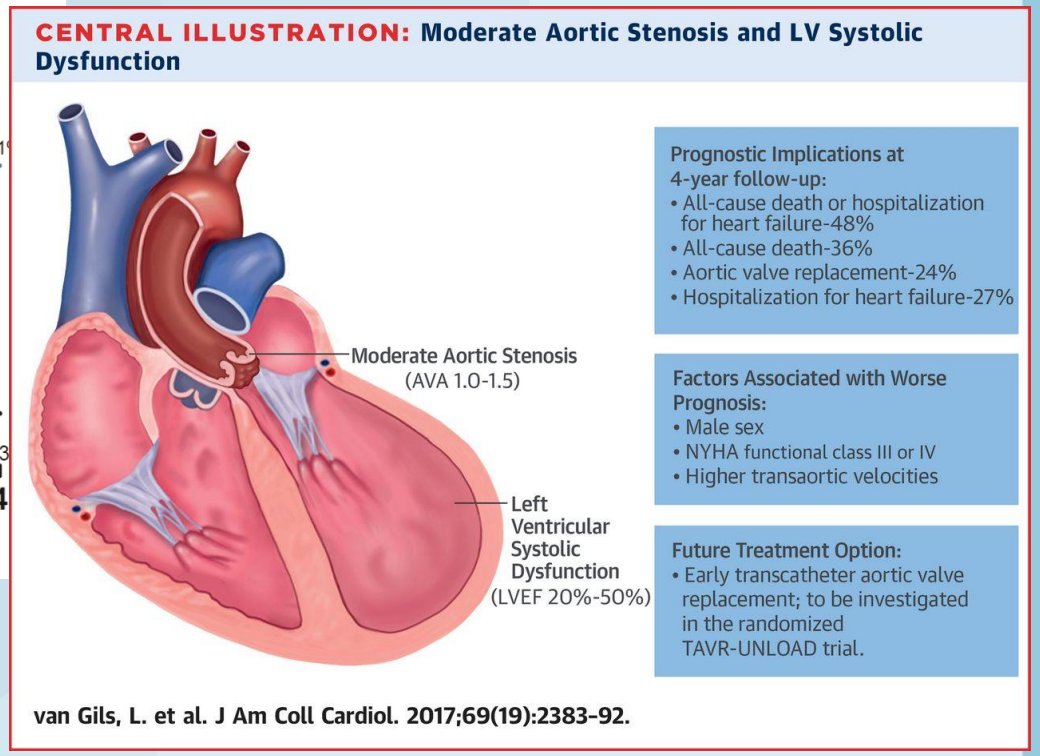
Retrospective 3-center study of 305 patients with moderate AS and LVEF<50%





Van Gils et al. JACC 2017

Predictors of Mortality in Patients with Low-LVEF, Low-Flow, Low -Gradient AS Treated Medically - TOPAS Study

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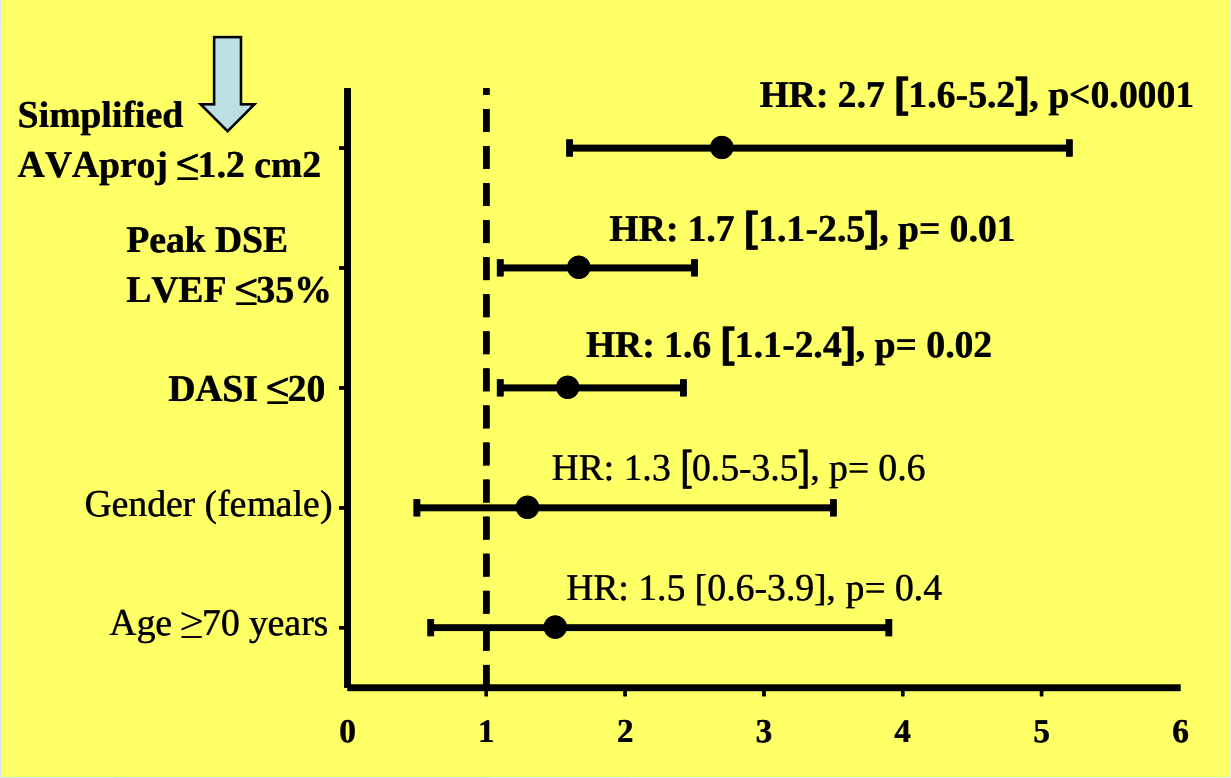

Clavel et al. Circulation 2008 and JASE 2010

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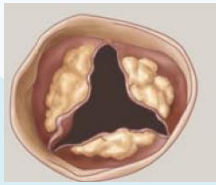
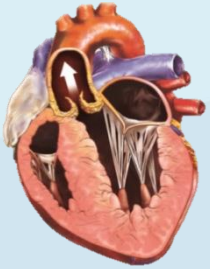
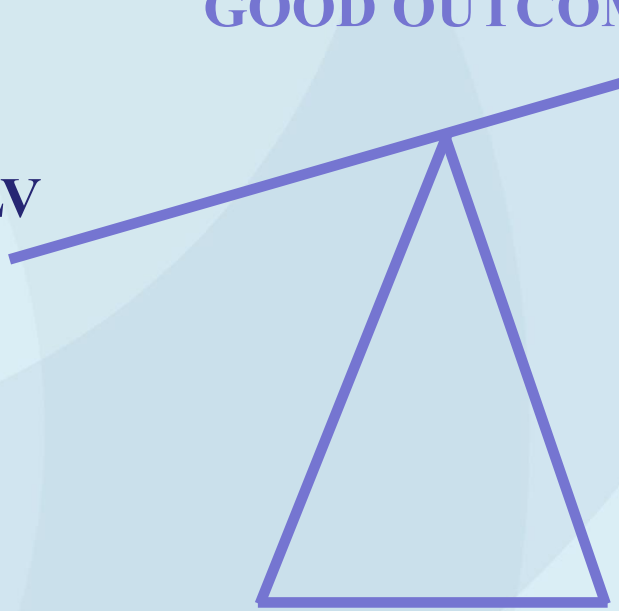


GOOD OUTCOME

MODERATE AS (SEVERE AS)

PRESERVED LV FUNCTION





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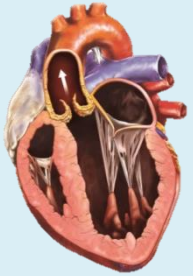
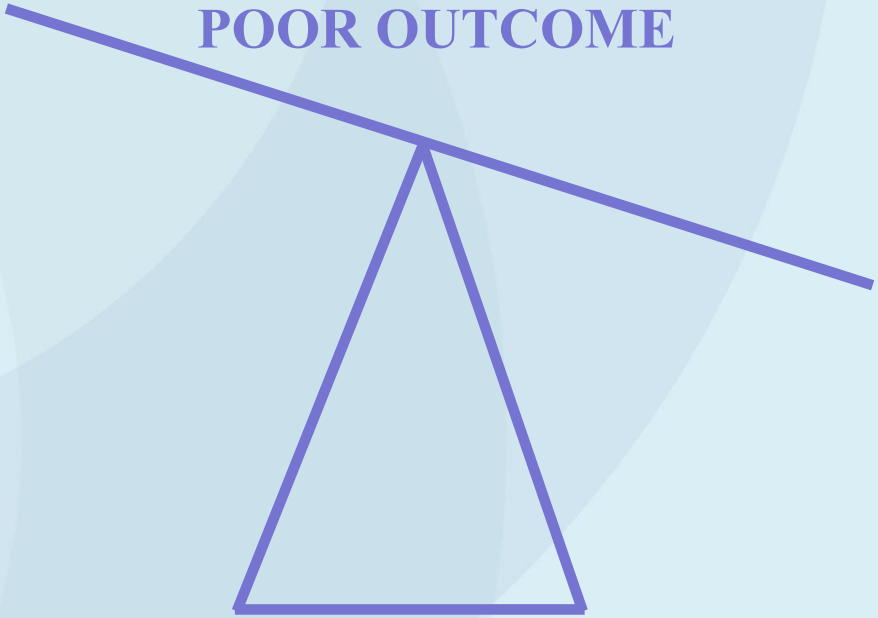
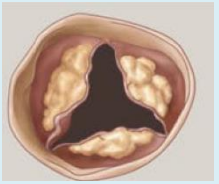
LV DYSFUNCTION
(Systolic or Diastolic)



HEART FAILURE
POOR OUTCOME





MODERATE AS

Why Transfemoral TAVR would be a good option in Moderate AS

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- Patients with moderate AS have low gradient at baseline
- Provide large valve EOAs and low gradients: greater potential for significant hemodynamic benefit
- Low rates of paravalvular regurgitation: more impact in HF/LVH patients
- Transfemoral TAVR and under conscious sedation will be feasible in the vast majority of patients with moderate AS and HF

CRF

CARDIALYSIS
Clinical Trial Management - Core Laboratories

Edwards Lifesciences

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TAVR UNLOAD Trial

International
Multicenter
Randomized

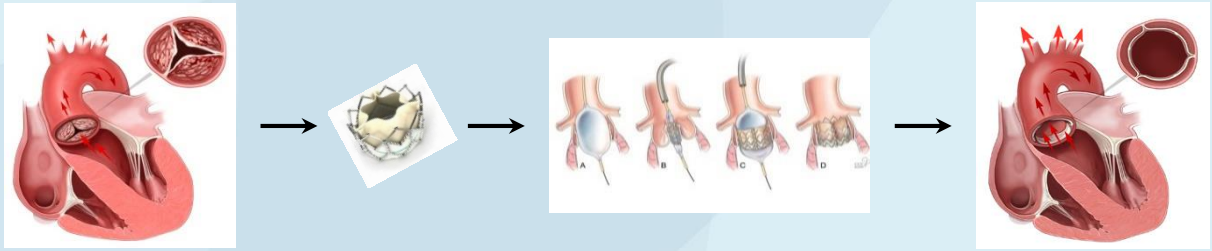
Heart Failure
LVEF < 50%
NYHA ≥ 2
Optimal HF therapy (OHFT)
Moderate AS

R

- TAVR + OHFT
- OHFT alone

Follow-up:
1 month
6 months
1 & 2 years

Clinical endpoints
Symptoms
Echo
QoL



NewYork-Presbyterian
Columbia University Medical Center

Erasmus MC
Universitair Medisch Centrum Rotterdam

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DISCUSSION……