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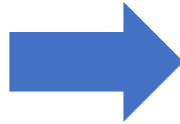
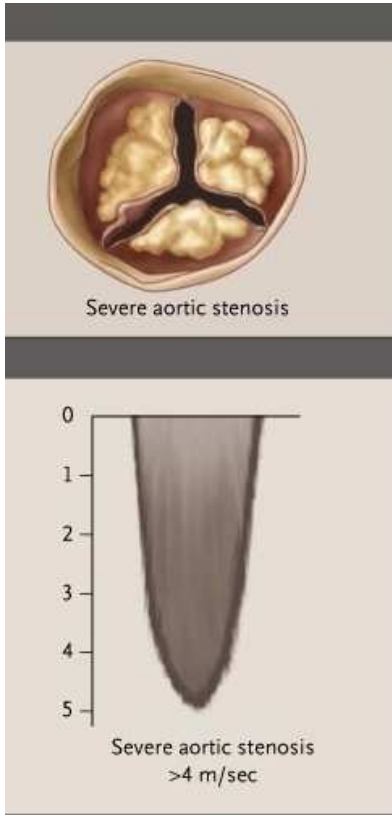
The central graphic is a vertical rectangular panel with a grid of small, colorful squares (blue, green, yellow) on the left and right sides. It contains text in white and blue on a light blue background.

Le TAVI au-delà du RA serré symptomatique

Eric Durand
CHU de Rouen



Indications actuelles d'une intervention pour un RA serré

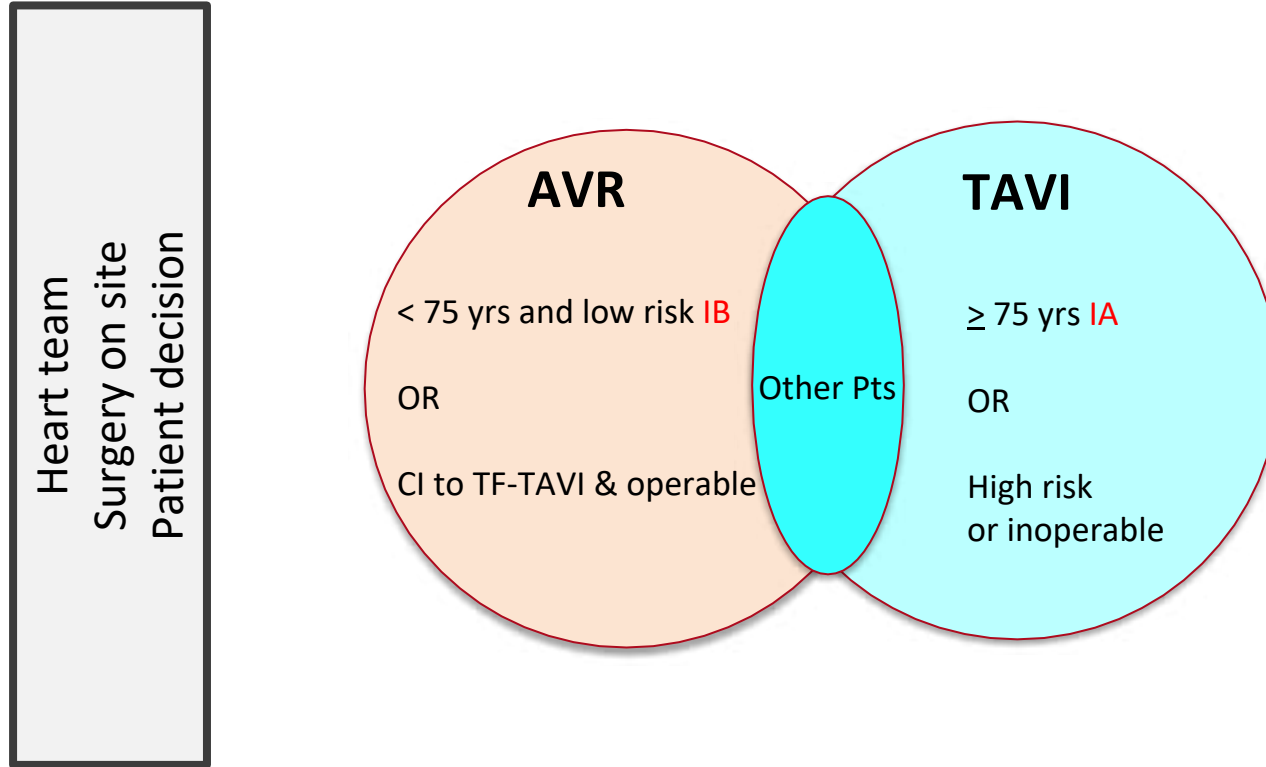


- **SYMPTOMATIC severe AS**

- **ASYMPTOMATIC severe AS with:**

- EF < 50-55%
- Symptoms or sustained fall in BP > 20 mm on stress test
- Vmax > 5 m/sec
- Mean gradient > 60 mm Hg
- V max progression > 0.3 m/sec/year
- Elevated BNP X3

Indications actuelles du type d'intervention an cas de RA serré



RA serré asymptomatique sans critères d'intervention ?

MD: You have Severe AS

Patient: *What Should we do?*

MD: You tell me when you don't feel well...

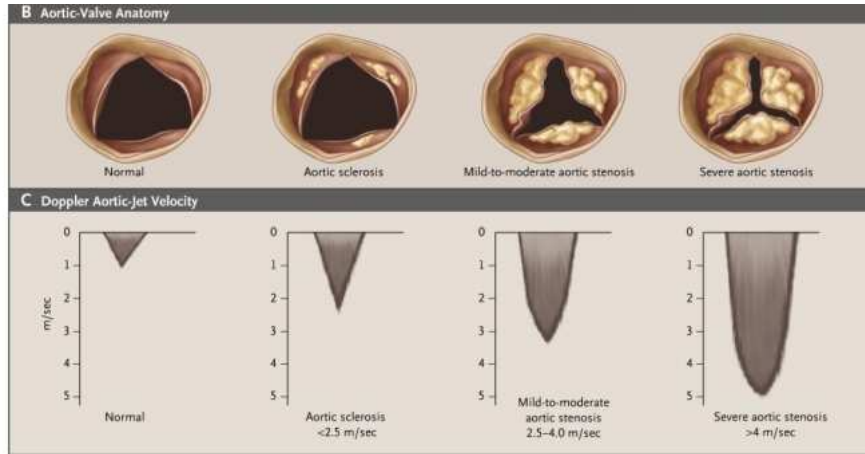


1. RA serré asymptomatique sans critères d'intervention?



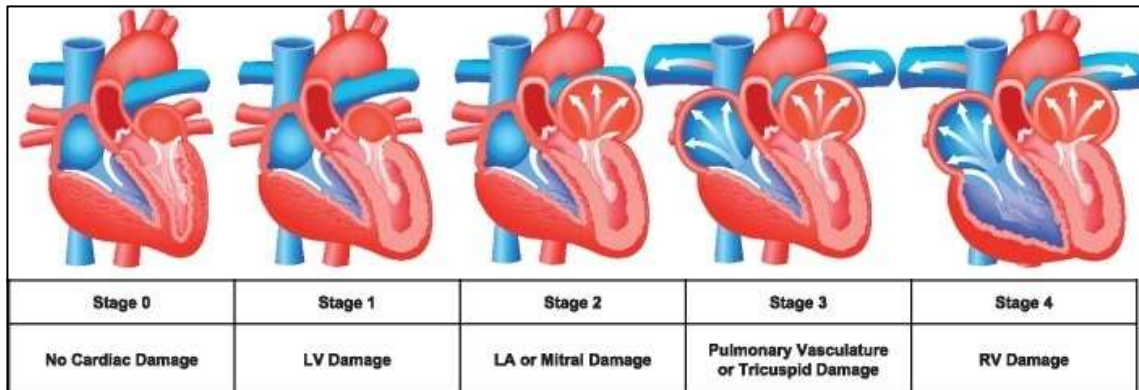
- Prévalence du RA serré asymptomatique: 25-50% des RA serrés
- Epreuve d'effort rarement pratiquée (<10%)
- Risque de mort subite 1-2%/an
- Difficulté de prévoir l'évolution
- Absence de prise en compte du retentissement cardiaque du RA (staging)
- Intérêt de l'IRM (Etendue de la fibrose myocardique) ?

1. RA serré asymptomatique sans critères d'intervention



Aortic stenosis progresses slowly due to accumulation of calcifications on valve leaflets

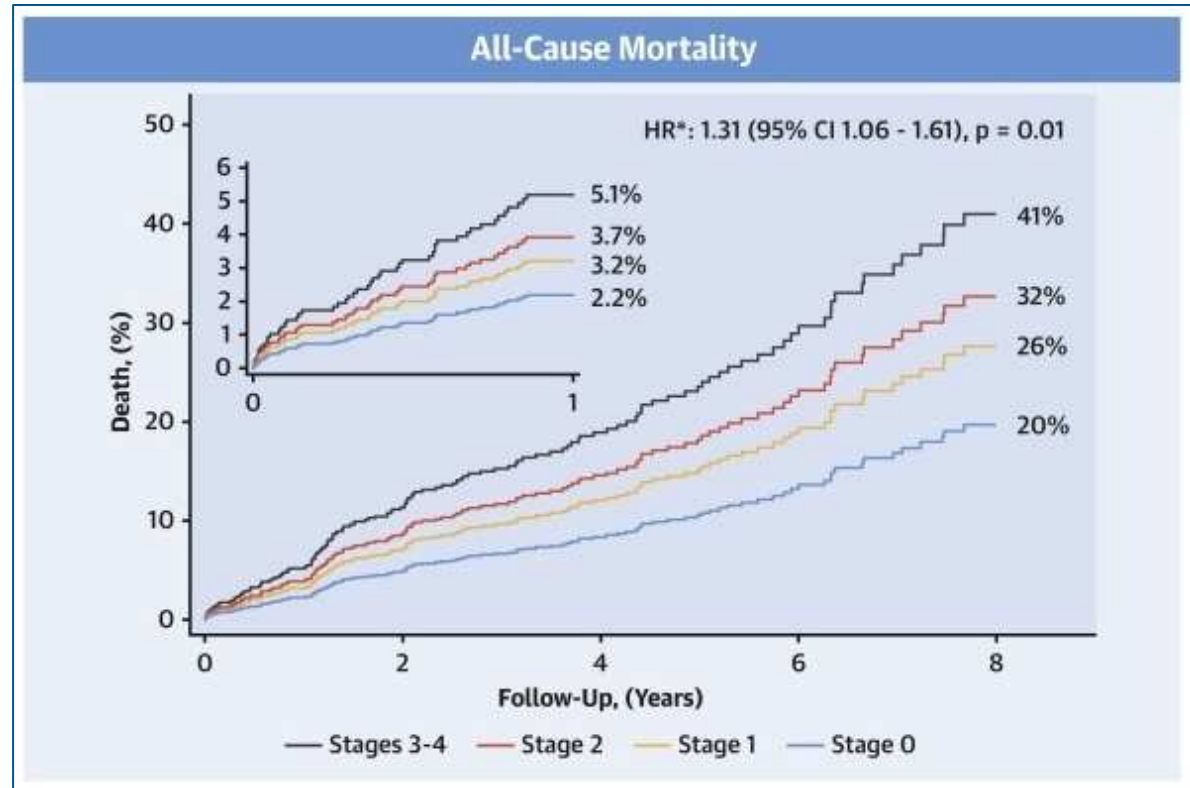
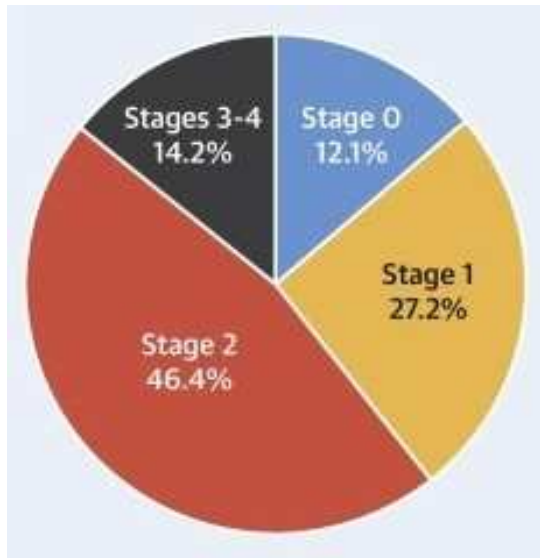
In parallel, without intervention, cardiac remodeling with develop: from LV hypertrophy, LA enlargement to LV dysfunction and finally RV dysfunction



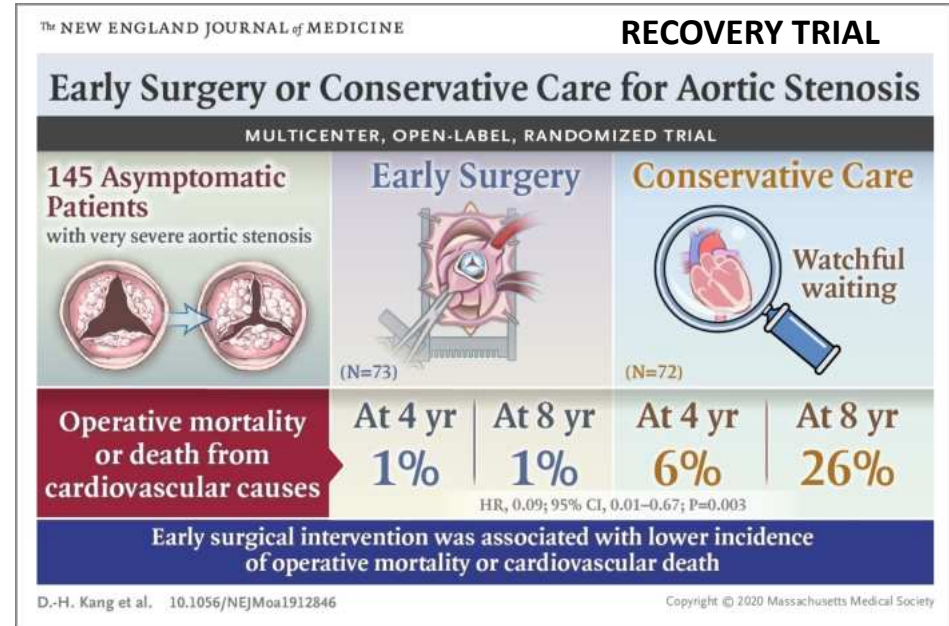
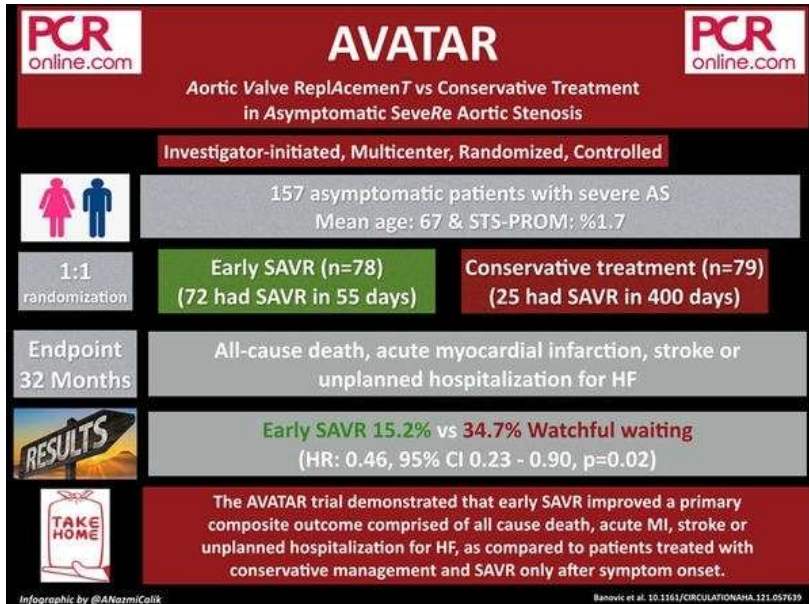
1. RA asymptomatique sans critères d'intervention

735 asymptomatic patients

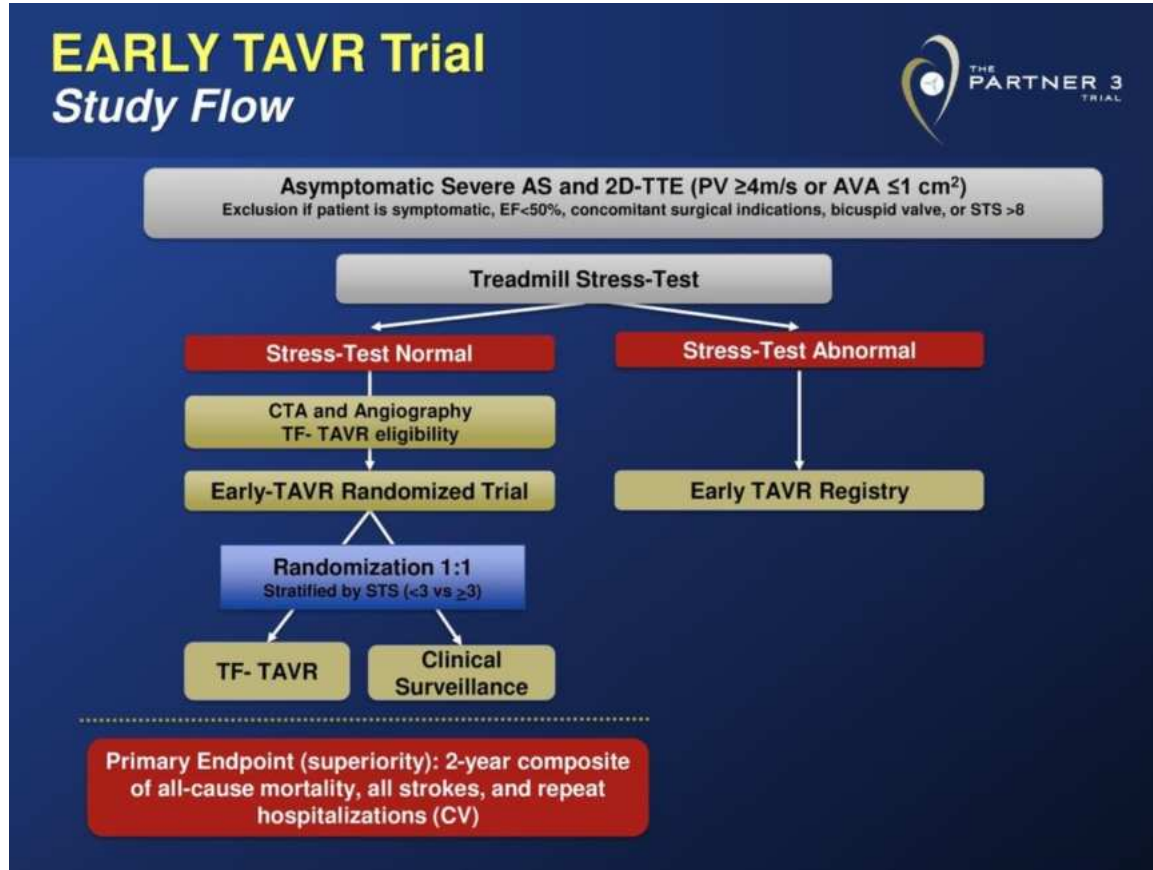
- with at least moderate AS
- preserved LVEF



1. RA asymptomatique: études randomisées (RVA)

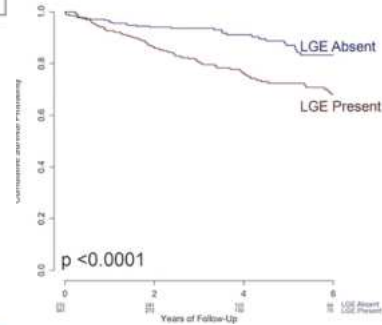
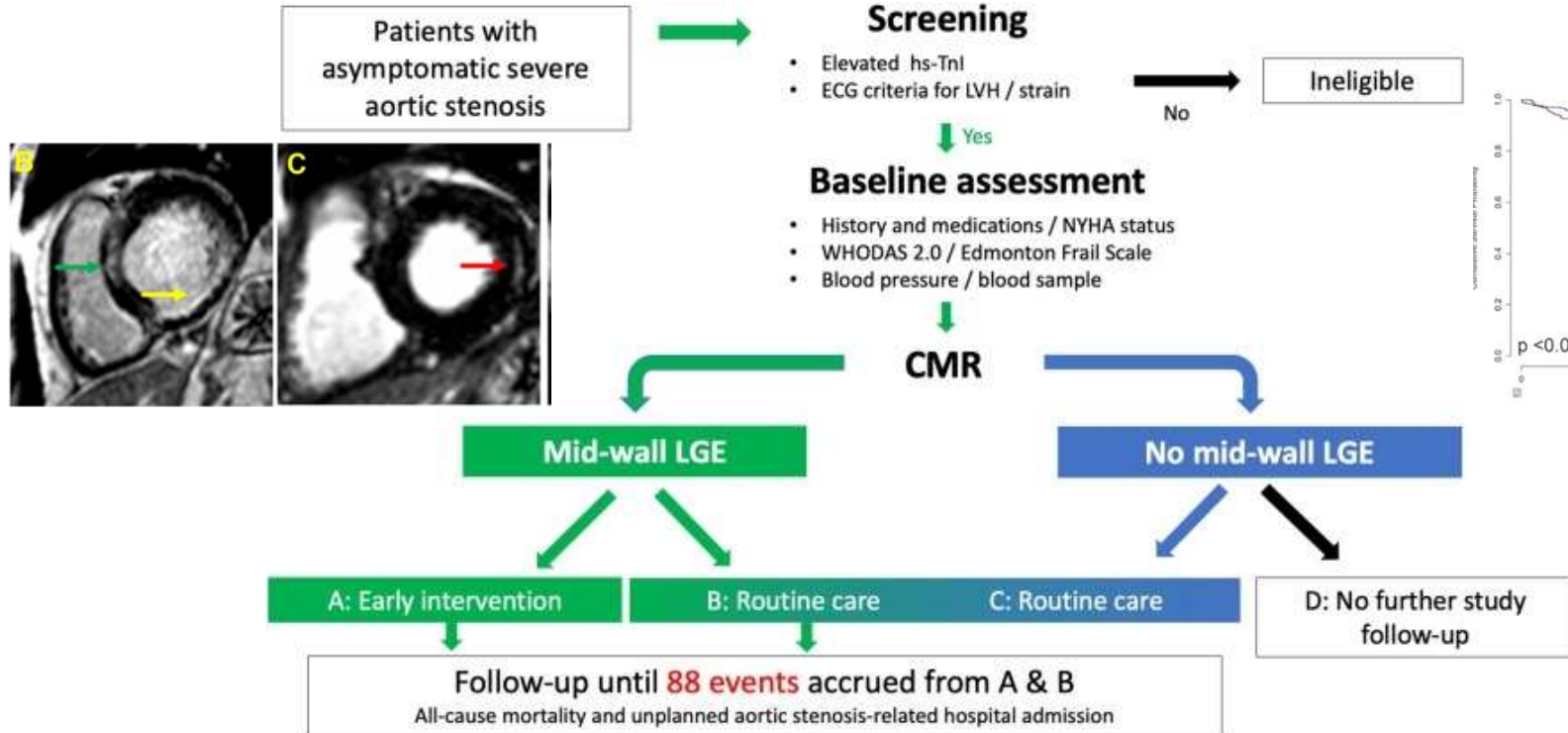


1. RA serré asymptomatique sans critères d'intervention

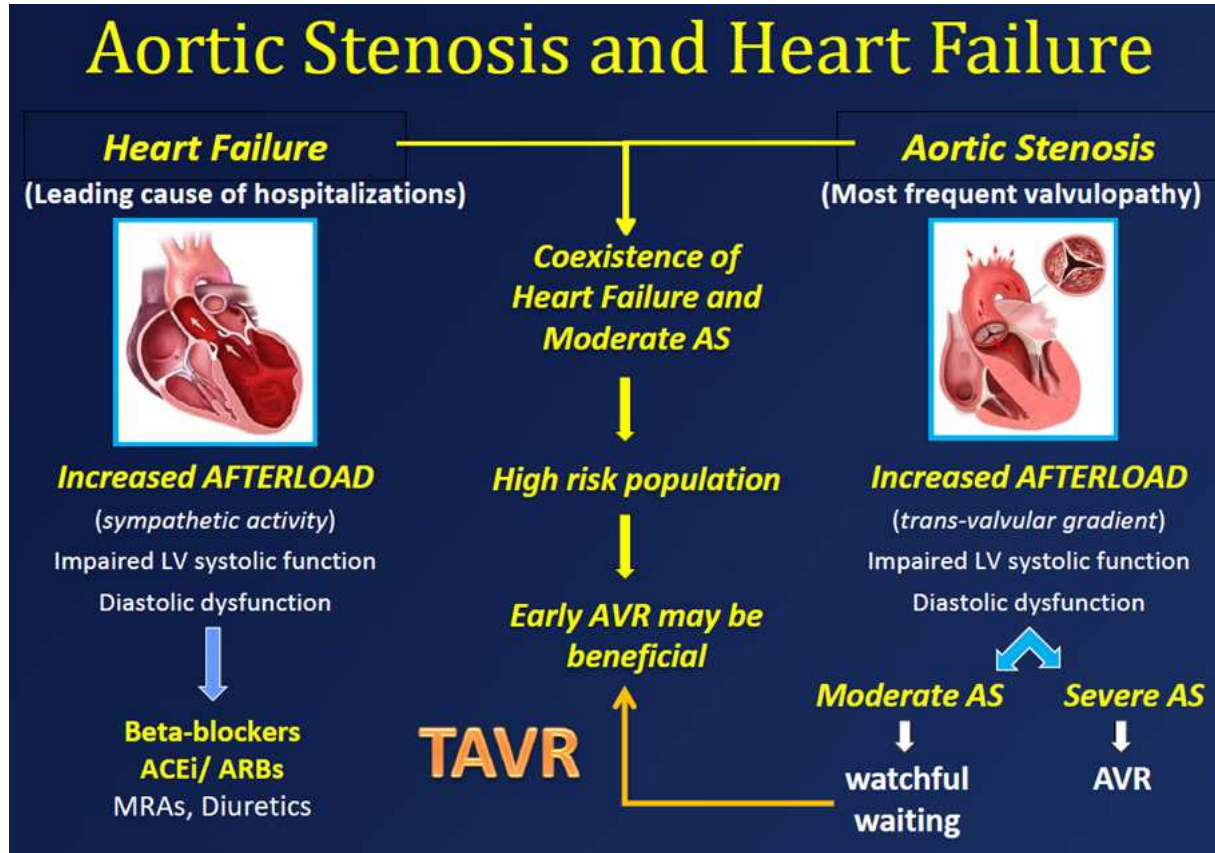


1. RA asymptomatique sans critères d'intervention

EVOLVED Trial

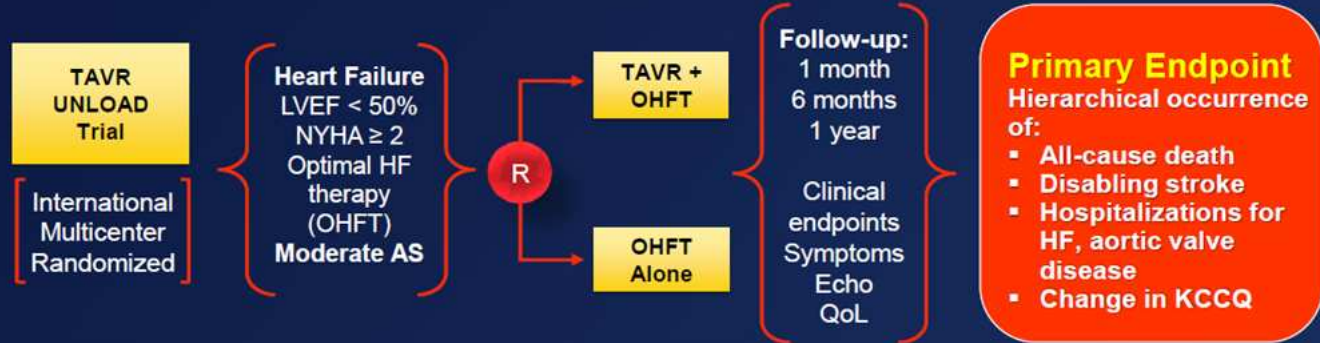


2. RA modéré avec dysfonction VG



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TAVR UNLOAD Trial Study Design (600 patients, 1:1 Randomized)



2. RA modéré avec dysfonction VG/IC

- International, randomized open-label in 750 patients
- **TAVR (Sapien 3) vs. Medical treatment alone**



- **Inclusion criteria:**
 - Patients with moderate AS and
 - Symptoms or heart failure or LV dysfunction

- **Endpoint at 2 years:** All cause death, Disabling stroke, Re-hospitalization, Improved QOL

- Follow-up = 10 years

3. Place du TAVI dans l'insuffisance aortique

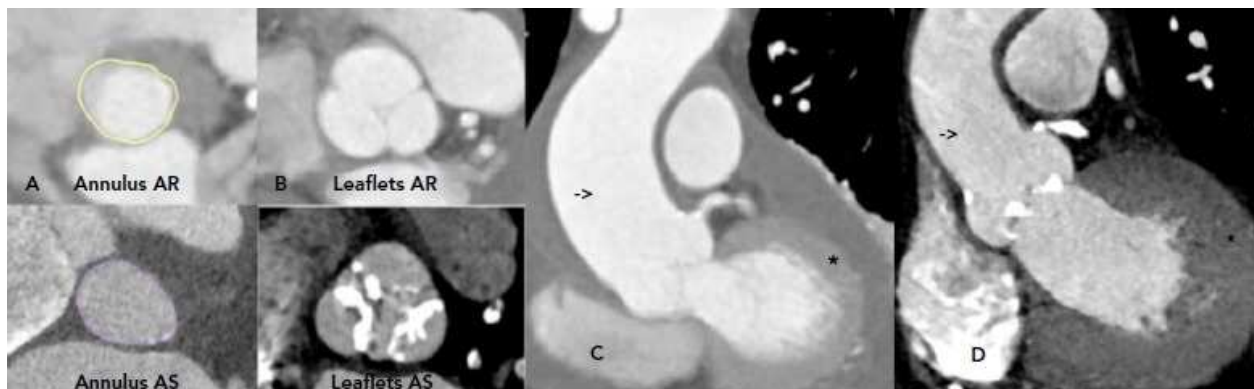


Table 2: Main Results of Recent Retrospective Studies Evaluating Early Generation Devices Versus New Generation Devices

Author, year	Patients (n)	EGD	NGD	Device Success (EGD/NGD)	CV Mortality (EGD/NGD)	Second Valve (EGD/NGD)	AR >Moderate (EGD/NGD)
Roy et al. 2013 ⁴¹	43	100%	NA	74.4%/NA	10.7%*/NA	18.6%/NA	4.7%/NA
Yoon et al. 2017 ⁴⁹	331	36%	64%	61.3%/81.1%	23.6%/9.6%*	24.4%/12.7%	18.8%/4.2%
De Backer et al. 2018 ⁴⁸	254	43%	57%	47%/82%	12%/7% [†]	40.4%/9.4%	31%/4%
Sawaya et al. 2017 ⁵⁰	78	47.4%	52.6%	54%/85%	11%/5% [†]	24%/10%	29%/2%
Silaschi et al. 2018 ³⁹	30	NA	100%	NA/96.7%	NA/10%	NA/0%	NA/0%

* 1-year mortality; [†]30-day mortality. AR = aortic regurgitation; CV = cardiovascular; EGD = early generation device; NGD = new generation device.

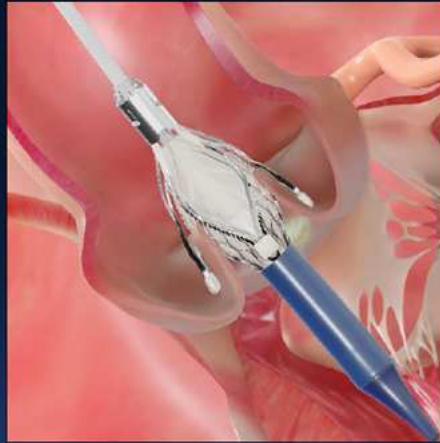
3. Place du TAVI dans l'insuffisance aortique

Trilogy THV in AR Anatomy



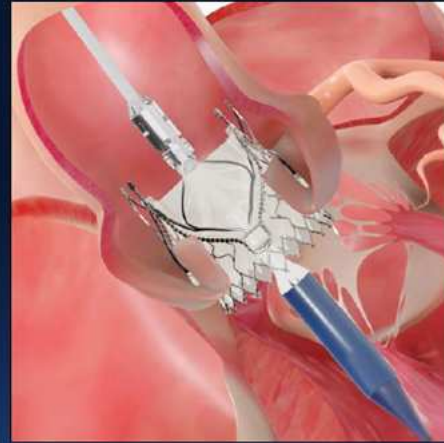
Alignment

- Aligns THV with native cusps



Positioning/Anchoring

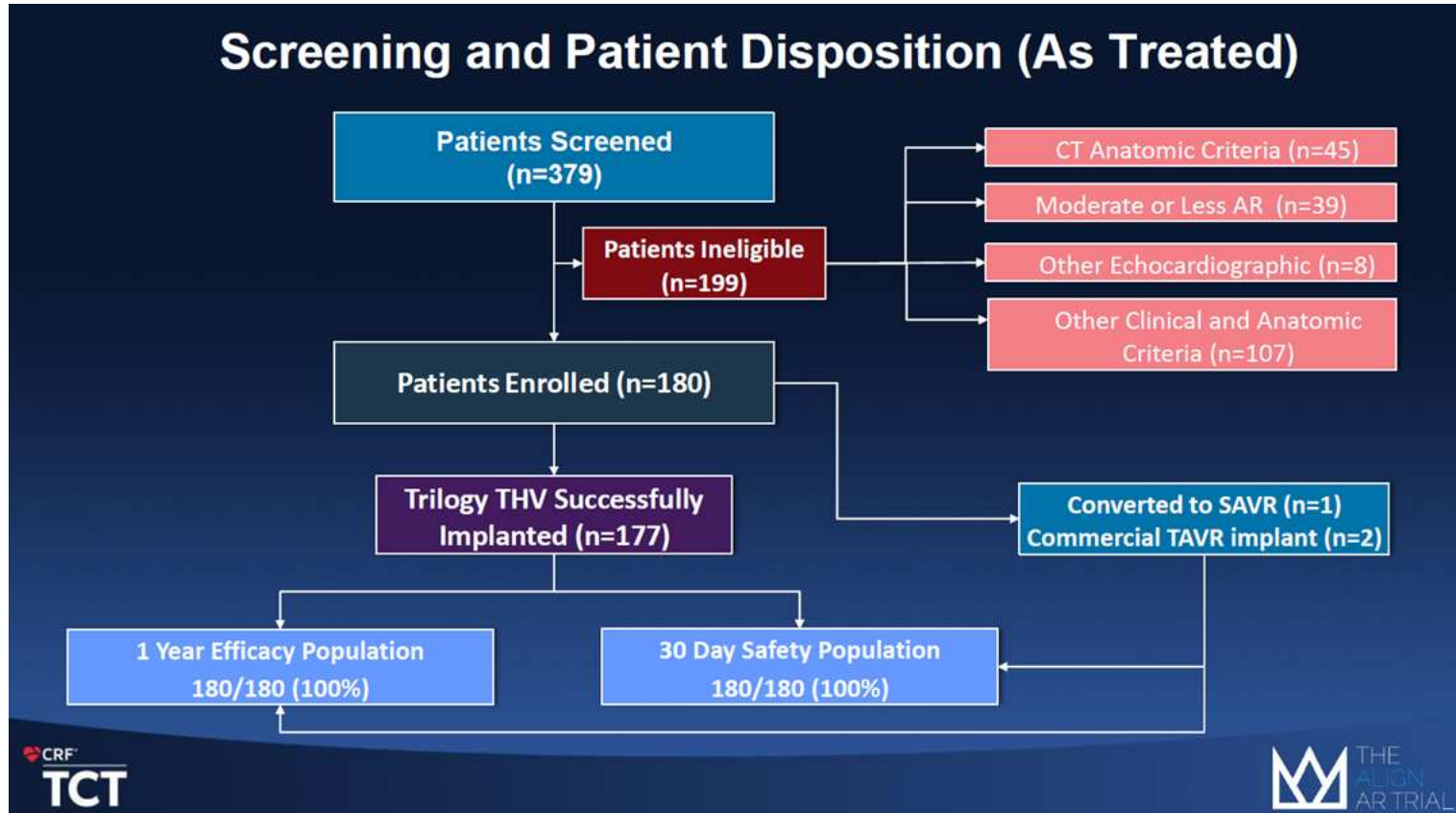
- Locators “clip” onto native leaflets forming a natural seal and stable securement



Deployment

- Large open cells provide access to low coronaries
- Flared sealing ring conforms to annulus

3. Place du TAVI dans l'insuffisance aortique

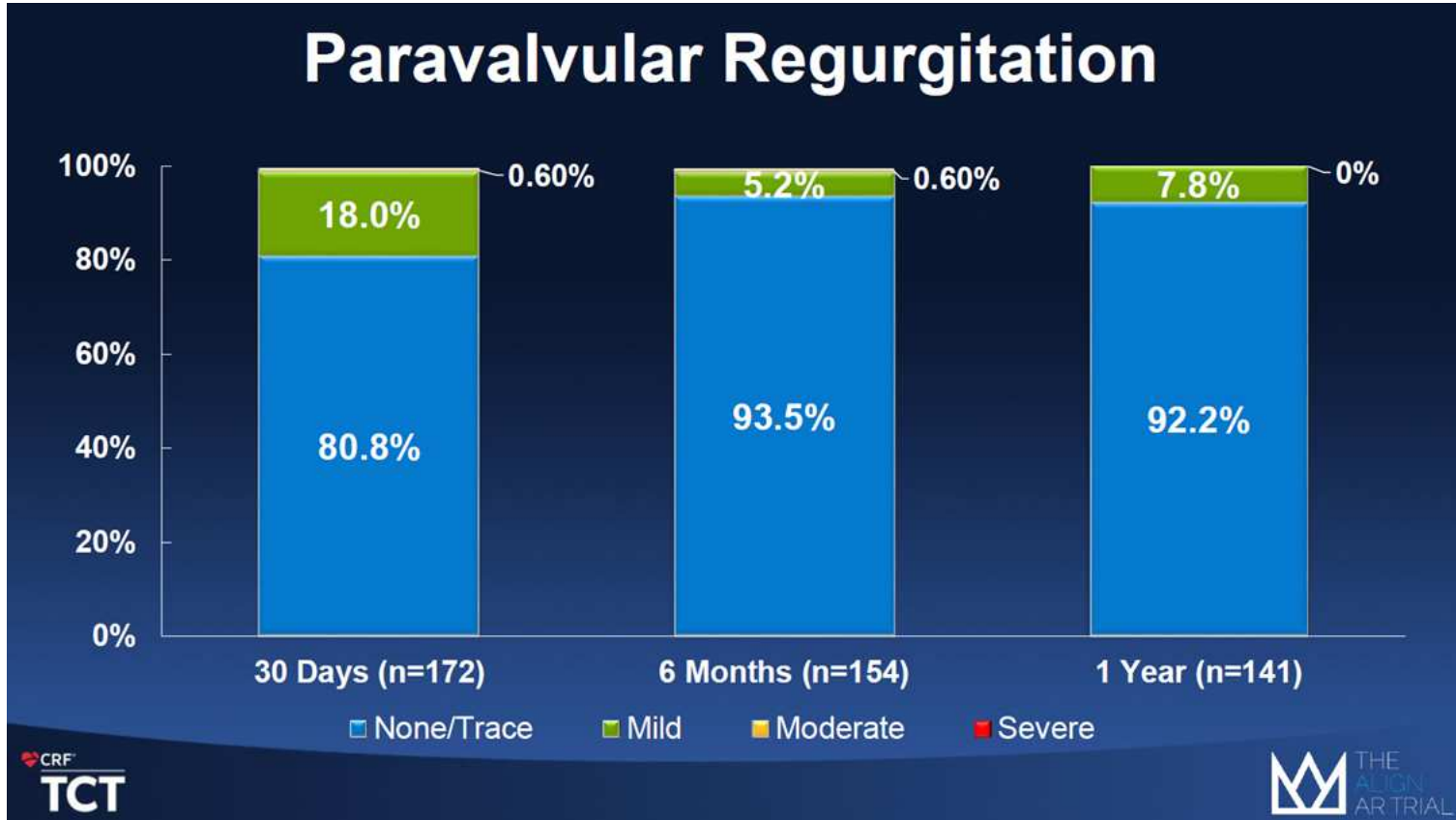


3. Place du TAVI dans l'insuffisance aortique

Procedural Outcomes

Outcome	% (n)
In-procedural Death	0
Annular Rupture	0
Ventricular Perforation	0
Coronary Obstruction	0
Valve Embolization	2.2% (4)
Aortic Dissection	0.6% (1)
Femoral Access Site Intervention	2.2% (4)
Success	
Technical Success	95.0% (171)
Device Success	96.7% (174)
Procedure Success	92.8% (167)

3. Place du TAVI dans l'insuffisance aortique



Conclusions



- RA serré asymptomatique :
 - TAVI indiqué quand EE d'effort anormale et/ou FEVG <50(55)%
 - Dans les autres cas, les études Early-TAVR (TAVI vs surveillance) et EVOLVED (TAVI/RVA selon biomarqueurs/IRM) préciseront la place du TAVI dans cette population
- RA modéré et dysfonction VG :
 - Etude TAVR unload (recrutement depuis 2016 ...) et PROGRESS (recrutement terminé)
- Insuffisance aortique pure :
 - Résultats prometteurs du registre ALIGN AR avec la valve Trilogy (Jenavalve)

Place du TAVI dans l'insuffisance aortique

