

Prise en charge des valves cardiaques en chirurgie classique et MIS

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LYON - France

LYON
2021

12 OCTOBRE 13 OCTOBRE 14 OCTOBRE

31^e JOURNÉES NATIONALES SUR LES DISPOSITIFS MÉDICAUX

CENTRE DE CONGRÈS DE LYON CITÉ INTERNATIONALE

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Disclosure :
Abbott, Carmat, Delacroix Chevalier,
Landanger, Medtronic

“Valvular approaches”

Sternotomy

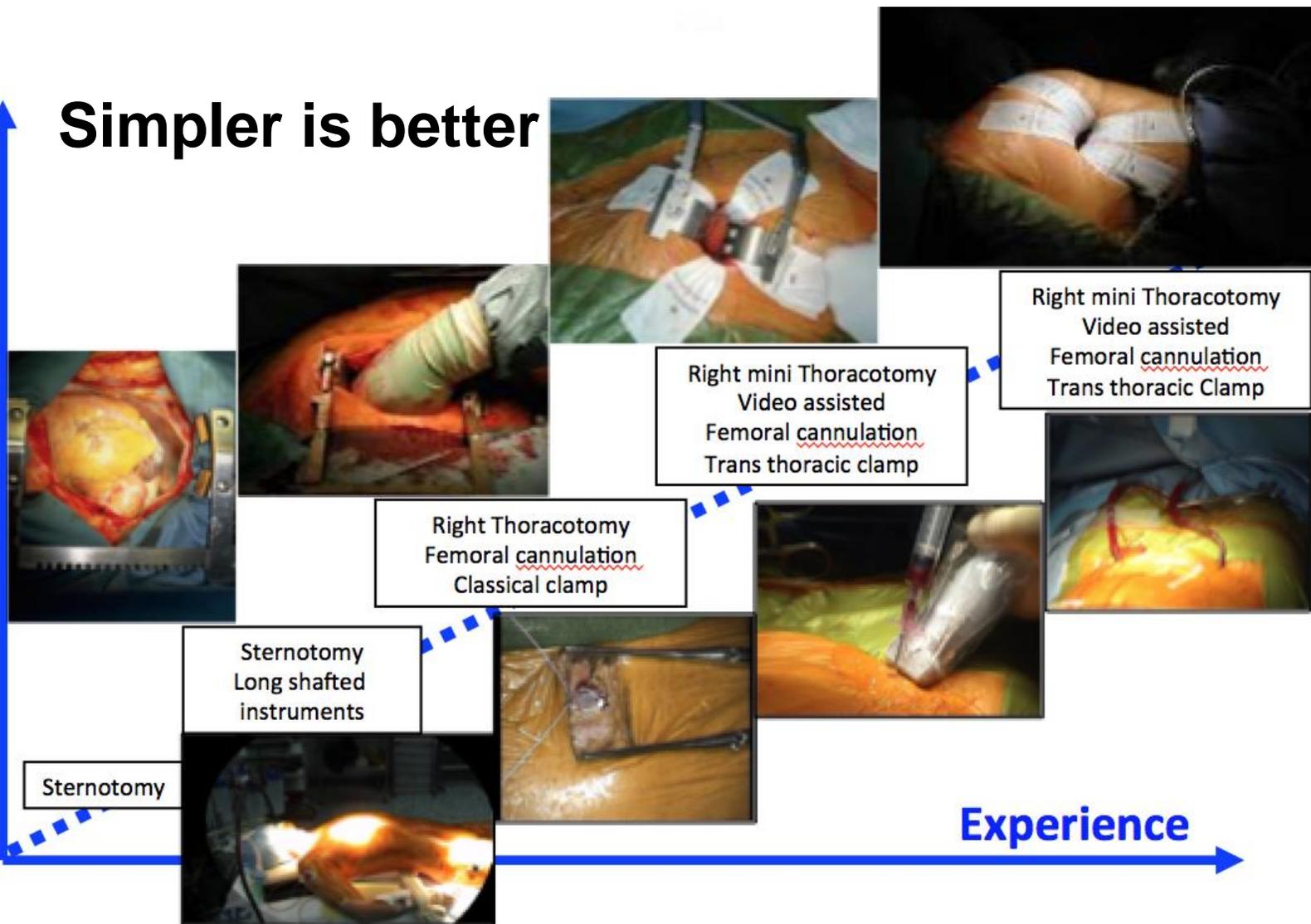
MIS

Percut

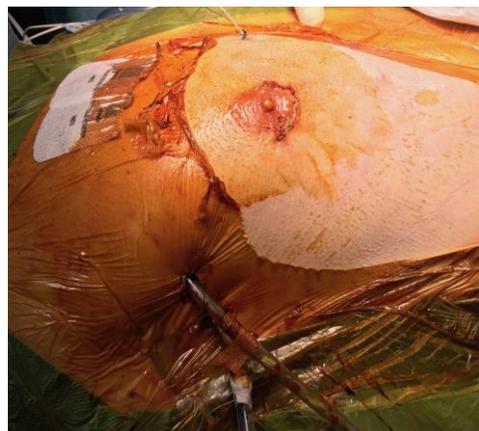
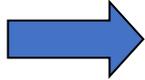
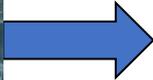
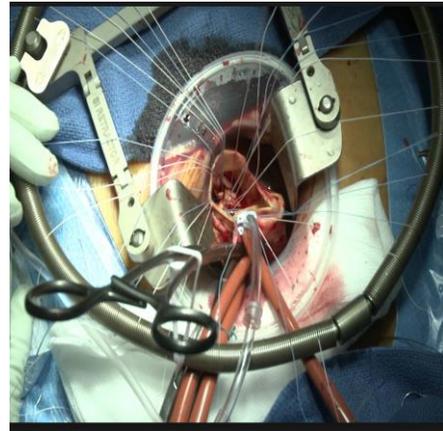
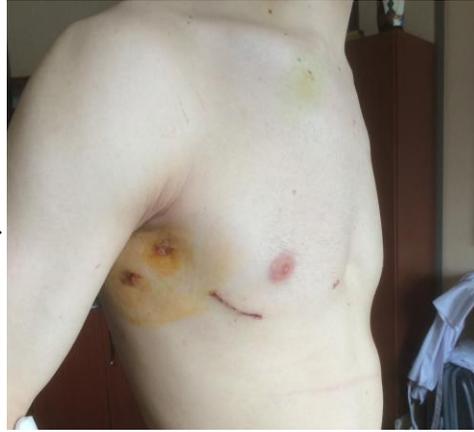


Simpler is better

Technique



Experience



No limit in Size





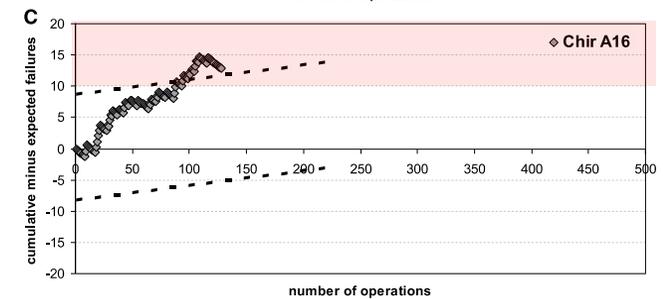
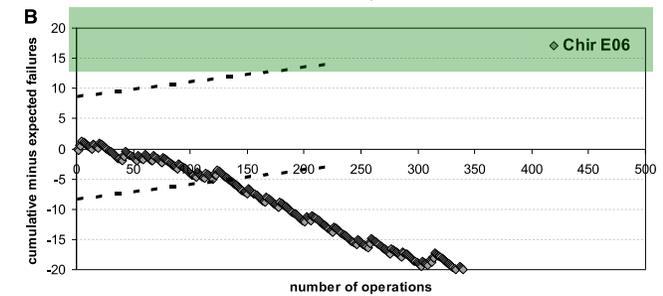
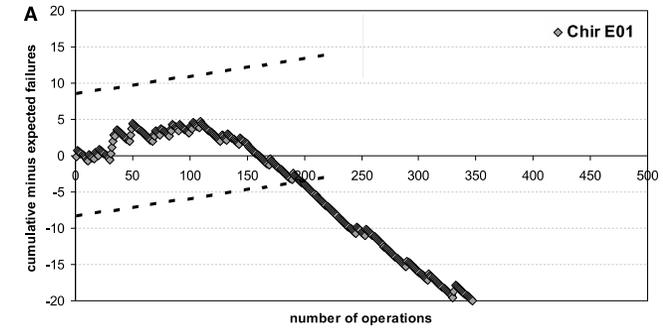
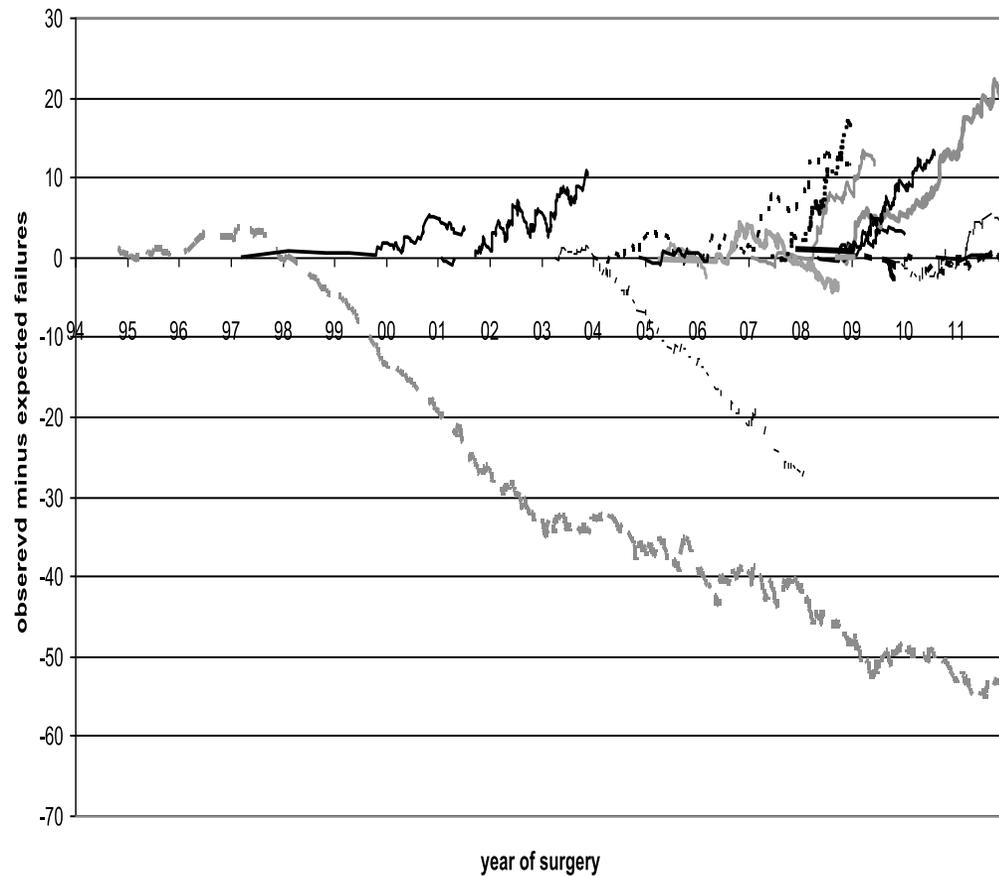


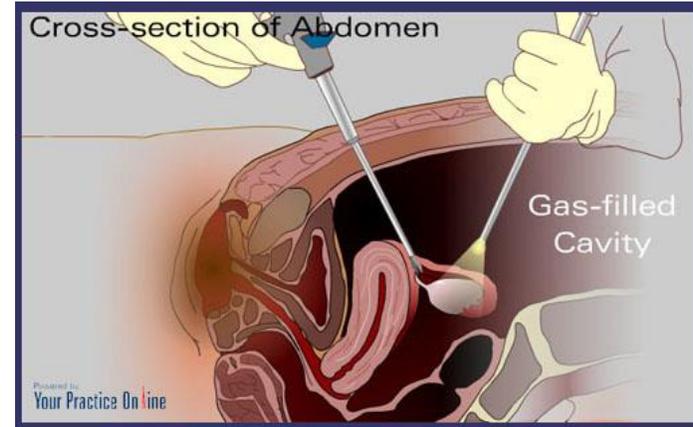
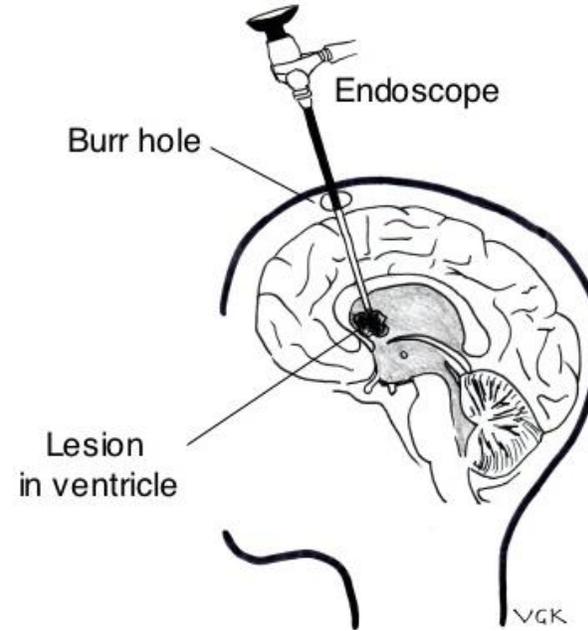
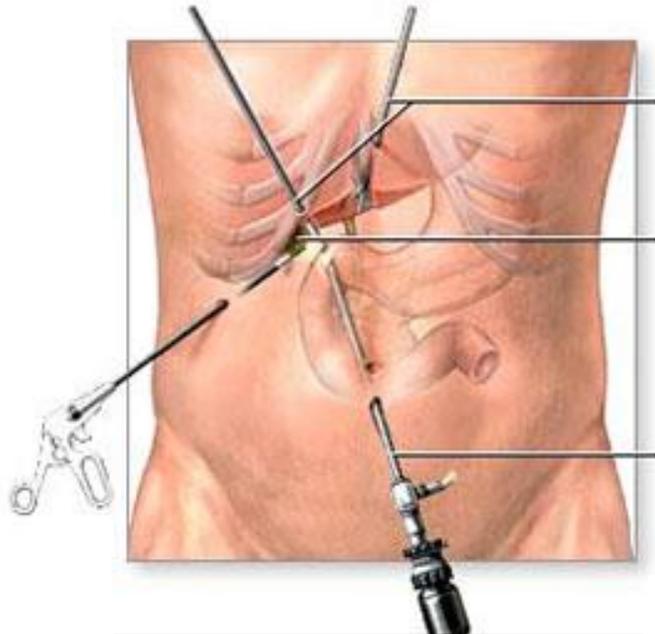
Learning Minimally Invasive Mitral Valve Surgery

A Cumulative Sum Sequential Probability Analysis of 3895 Operations From a Single High-Volume Center

Circulation. 2013;128:483-491

David M. Holzhey, MD, PhD; Joerg Seeburger, MD; Martin Misfeld, MD, PhD;
Michael A. Borger, MD, PhD; Friedrich W. Mohr, MD, PhD





“Minimally Invasive Surgery”

No sternotomy
No Incision
No ECC



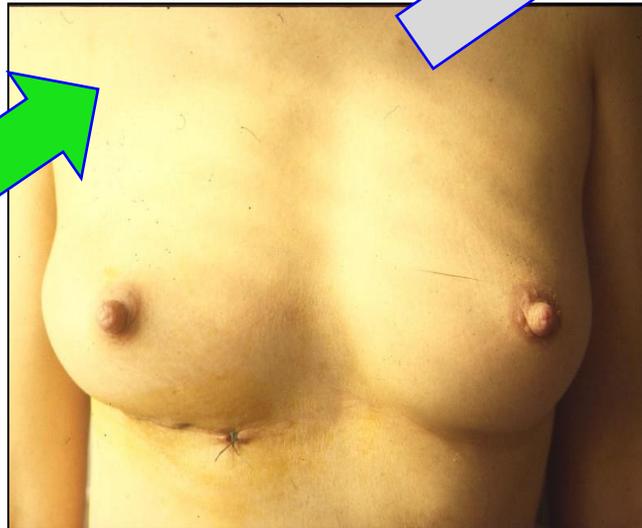
LV Apical approach
1) Neochord
2) V in V
3) Tendyne in Native
/ MAC

“Minimally Invasive Surgery”

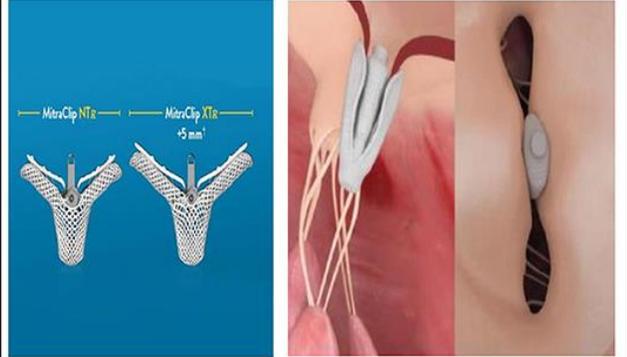
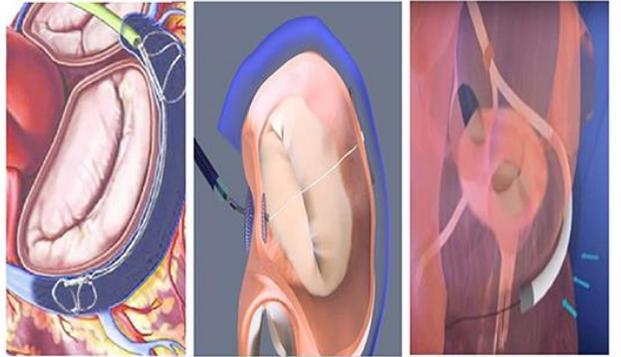
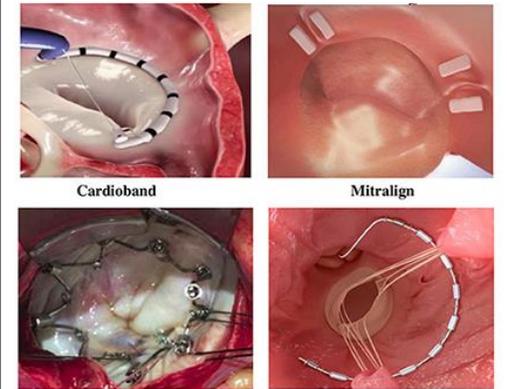
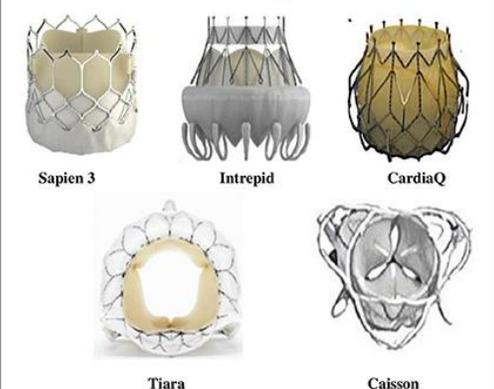
No sternotomy

No ECC

No incision

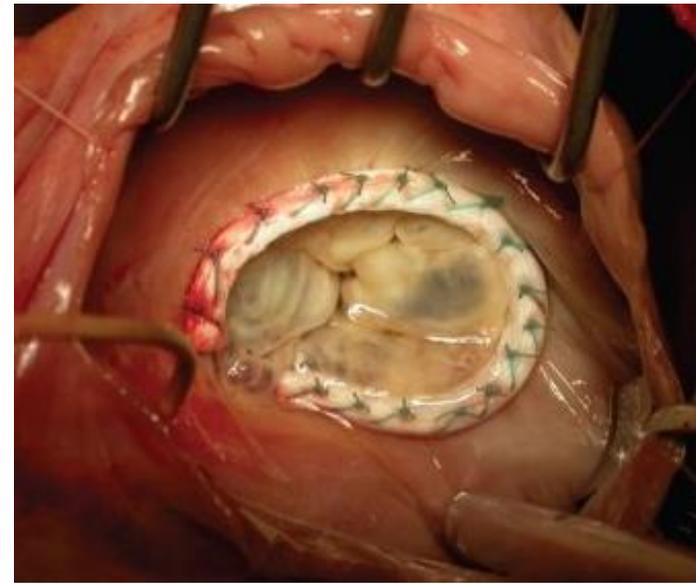
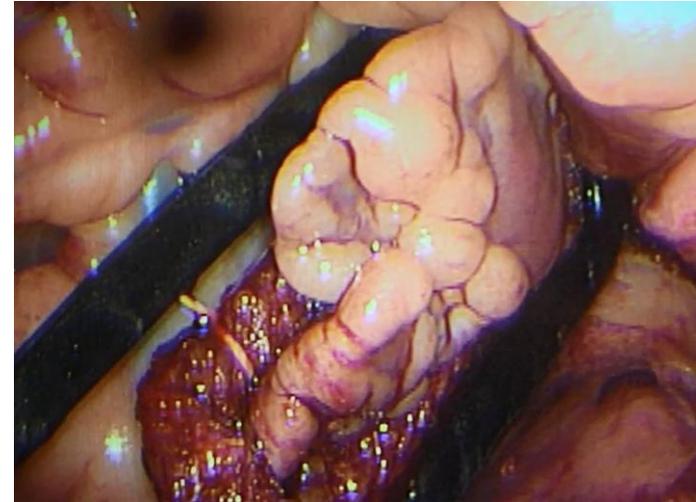
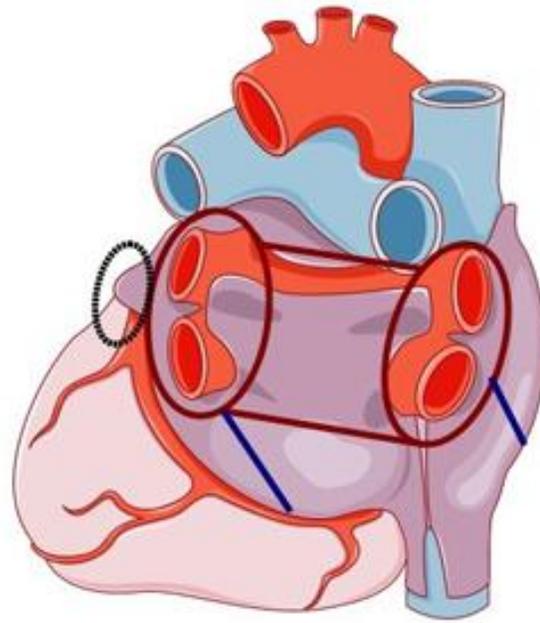
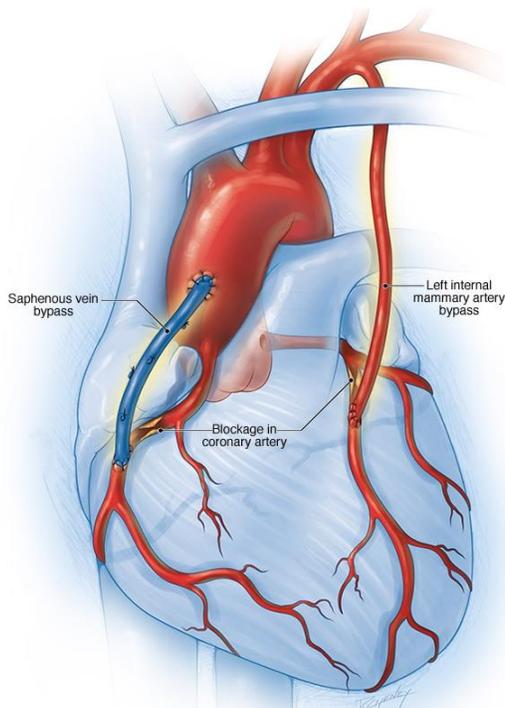


Tool Box → Heart Valve Team

<p>Surgery</p> 	<p>Edge-to-edge repair</p>  <p>Newer generation MitraClip Pascal</p>	<p>Indirect annuloplasty</p>  <p>Carillon MVRx ARTO Mitral Loop Cerclage</p>
	<p>Direct annuloplasty</p>  <p>Cardioband Mitralign</p> <p>Millipede Accucinch</p>	<p>Chordal replacement</p>  <p>NeoChord</p> <p>Transcatheter replacement</p>  <p>Sapien 3 Intrepid CardiaQ</p> <p>Tiara Caisson</p>



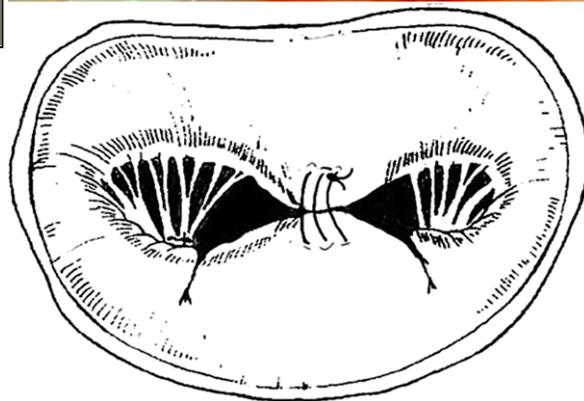
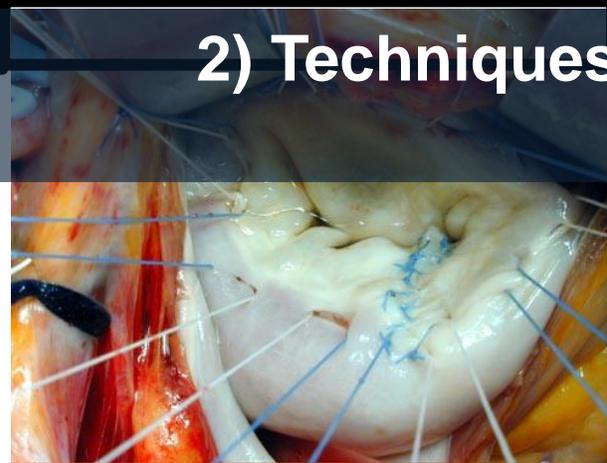
Valve Surgery + w + x + y + z



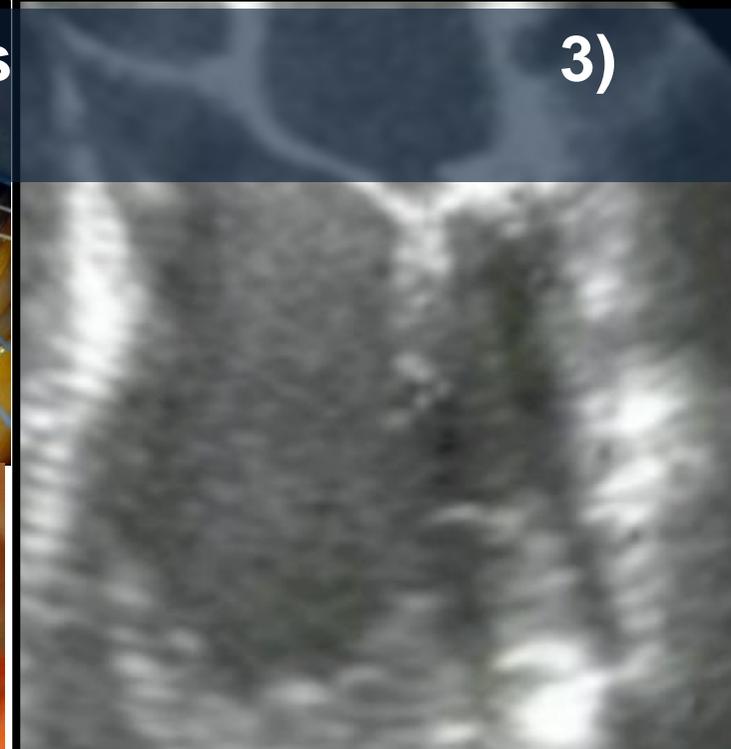
1) Approaches Goal



2) Techniques



3)



2021 ESC/EACTS Guidelines for the management of valvular heart disease

Vahanian A et al. European Heart Journal 2021



2003 GUIDELINES >40mm²

American Society of Echocardiography: Recommendations for Evaluation of the Severity of Native Valvular Regurgitation with Two-dimensional and Doppler Echocardiography

Parameter	Mild	Modest	Severe
Quantitative parameters**			
VC width (cm)	<0.3	0.3-0.69	≥0.7
RVol (ml/beat)	<30	30-44	45-59
RF (%)	<30	30-39	40-49
EROA (cm ²)	<0.20	0.20-0.29	0.30-0.39

2007 ESC Guidelines

Guidelines on the management of valvular heart disease >20mm²

The Task Force on the Management of Valvular Heart Disease of the European Society of Cardiology

methods adds important information. In ischaemic MR, lower thresholds of severity, using quantitative methods, have been proposed (20 mm² for ERO and 30 mL for regurgitant volume).^{24,110}

2014 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease >40mm²

A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines

2017 AHA/ACC Guideline for the Management of Patients With Valvular Heart Disease >20mm²

on the basis of the criteria used for determination of "severe" MR in RCTs of surgical intervention for secondary MR (69-72), the recommended definition of severe secondary MR is now the same as for primary MR (effective regurgitant orifice ≥ 0.4 cm² and regurgitant volume ≥ 60 mL), with the understanding that effective regurgitant orifice cutoff of >0.2 cm² is more sensitive and >0.4 cm² is more specific for severe MR. However, it

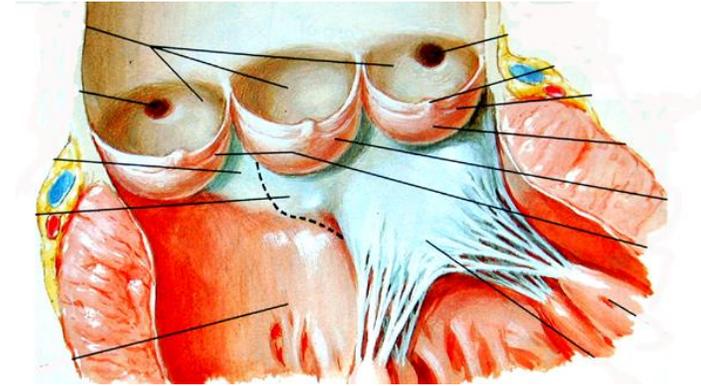
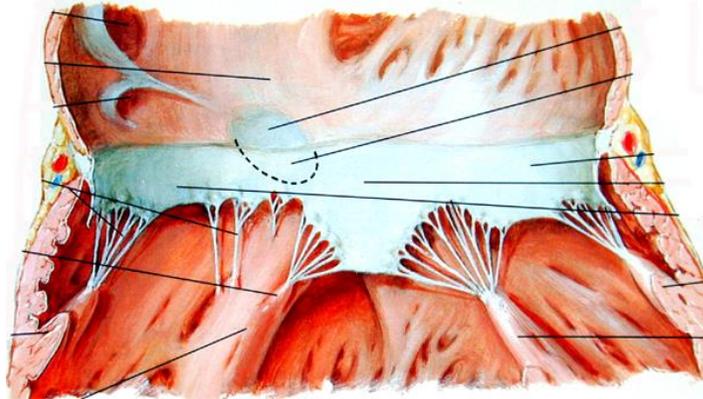
Clinician-Guidelines ≠ Pharmacy-Reimbursement

Table 3 What is new

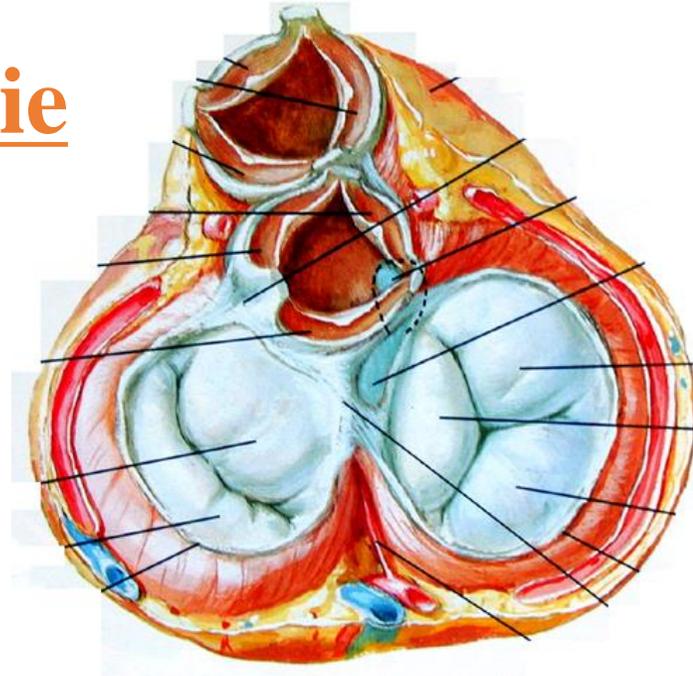
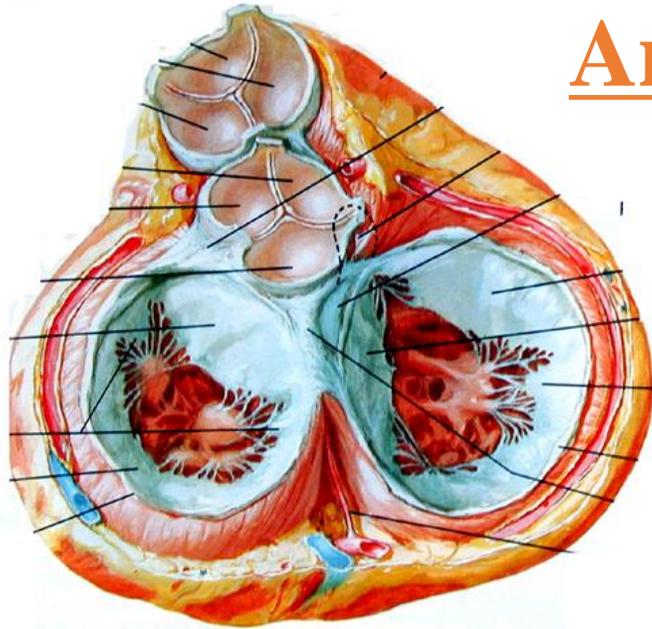
New or Revised	Recommendations in 2017 version	Class	Recommendations in 2021 version	Class
Section 3: Management of atrial fibrillation in patients with native VHD				
Revised	Surgical excision or external clipping of the LAA may be considered in patients undergoing valve surgery.	IIb	LAA occlusion should be considered to reduce the thromboembolic risk in patients with AF and a CHA ₂ DS ₂ VASc score ≥2 undergoing valve surgery.	IIa
Revised	NOACs should be considered as an alternative to VKAs in patients with aortic stenosis, aortic regurgitation and mitral regurgitation presenting with AF.	IIa	For stroke prevention in AF patients who are eligible for OAC, NOACs are recommended in preference to VKAs in patients with aortic stenosis, aortic and mitral regurgitation.	I

HAS

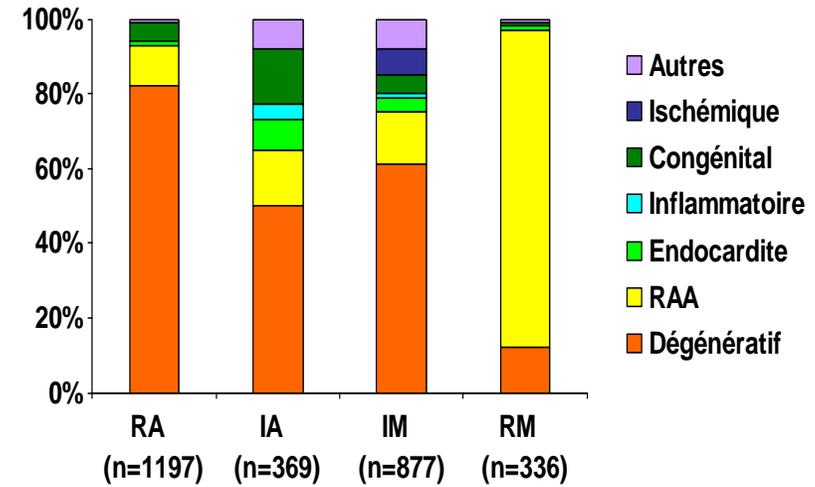




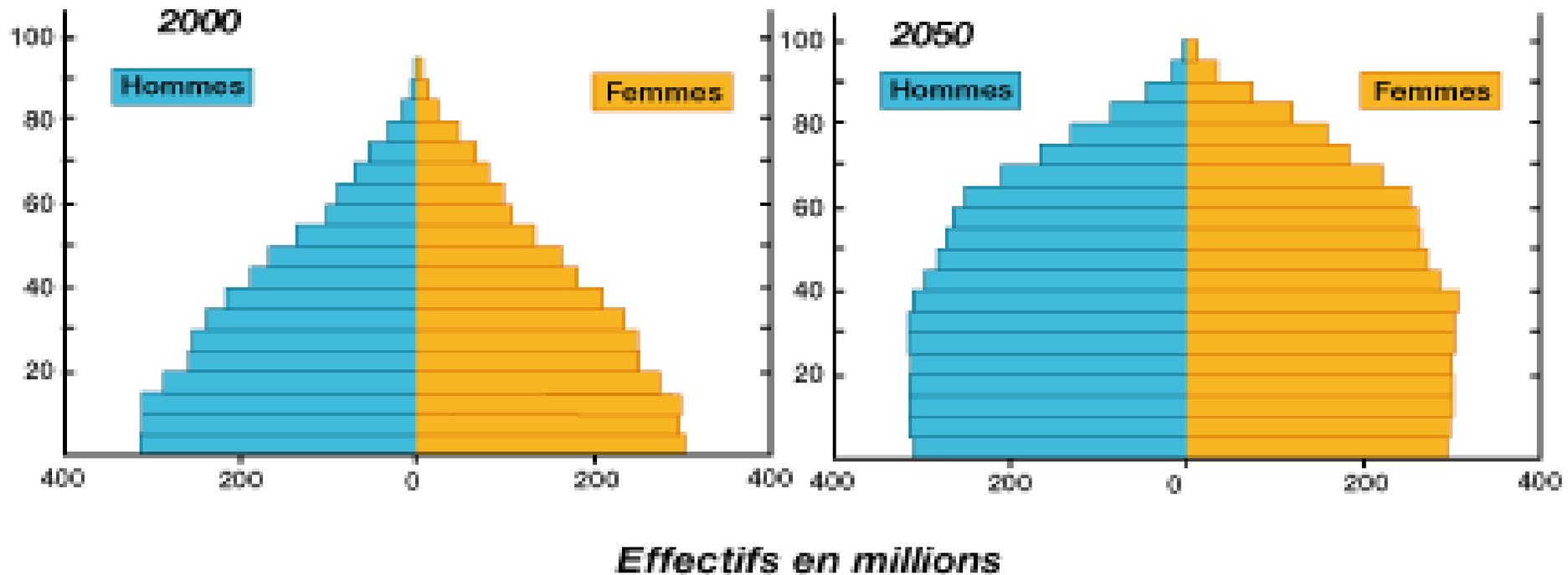
Anatomie



- 29 % Réopérations



Pyramide des âges mondiale en 2000 et 2050



Prise en charge de X

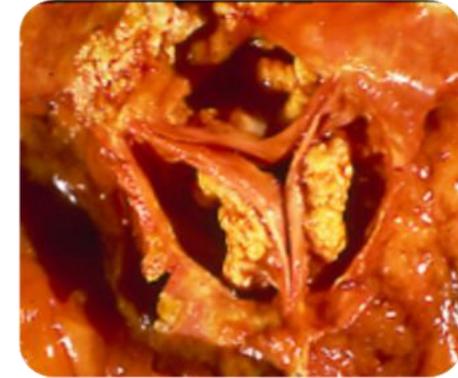
- 1) Def : Fuite ou Sténose / maladie
- 2) Clinique : Longtemps asympt. Triade (Dyspnée, Angor, Syncope, Oedemes, palpit...) → EE
- 3) Examen : Souffle (eject. ou Regurg.)
- 4) Biologie : Non ou BNP si IC, Coag...
- 5) ECG : HVG, HVA, ESV, **FA...** Ep. d'effort si Asymptomatique
- 6) Diagnostic : **ETT > ETO** → lésion, quantif, retentis, autres... Effort si Asympt
- 7) Pronostic : **Echographie** → (EF, DTS>DTD, PAPs, coeur droit)
- 8) Cathétérisme : Coro si risque ou doute Dg (H >40 et F Ménopausée)
- 1) Traitement : pas de ttt Med → **Quand intervenir ?** Symptomes ?
- 2) Surveillance : **Coag... Echographie** → (EF, DTD, DTS, Valve...)

1) RA dégénératif : Maladie de Monckeberg (80% âgé)

Athérome, HTA, Chlamydiae pneumoniae

Traitement par les Statines → non ???

Calcification figeant les valves en position fermée

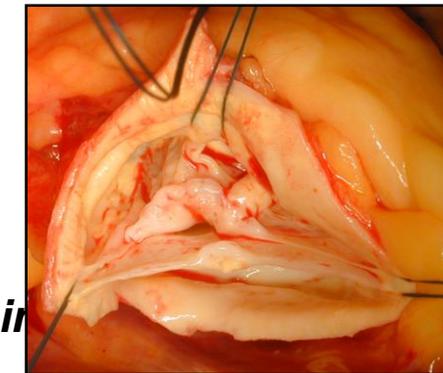


2) Bicuspidie congénitale = 15 %

1 à 2 % de prévalence, dégénérescence accélérée

Coarctation, canal artériel, Dilatation Ao. Asc...

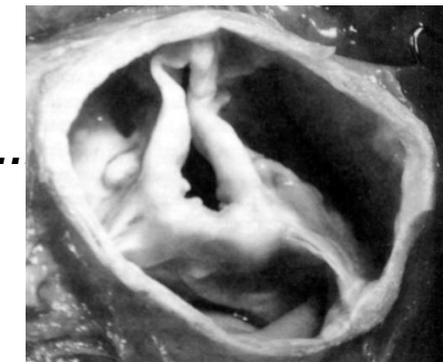
Idem, Raphé médian, Anneau et Ao Asc dilatée



3) RAA

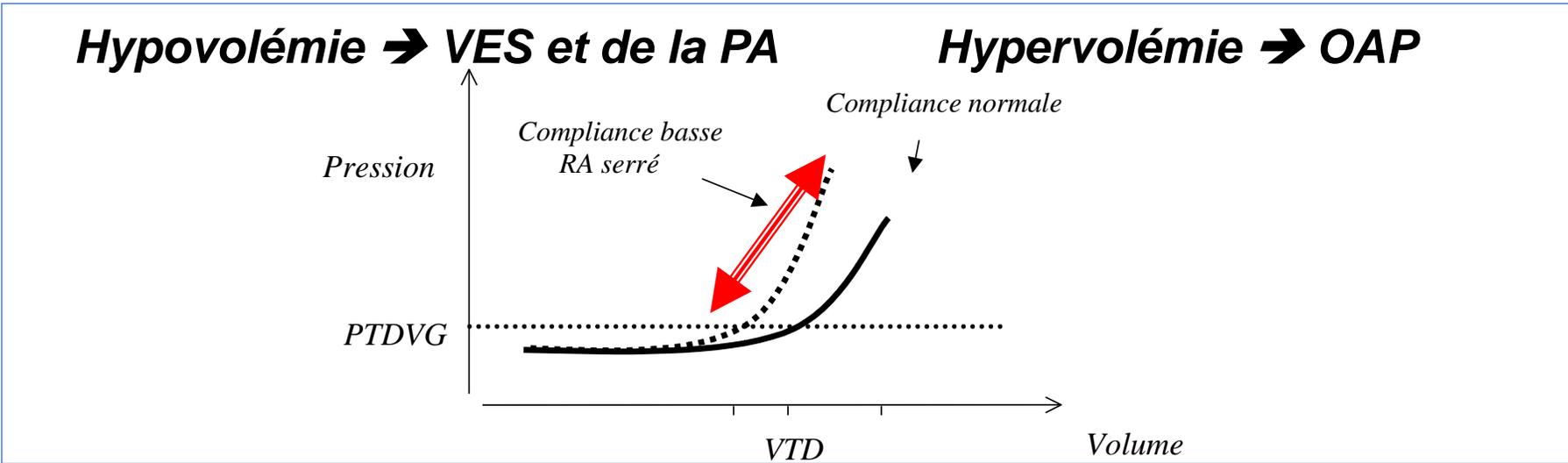
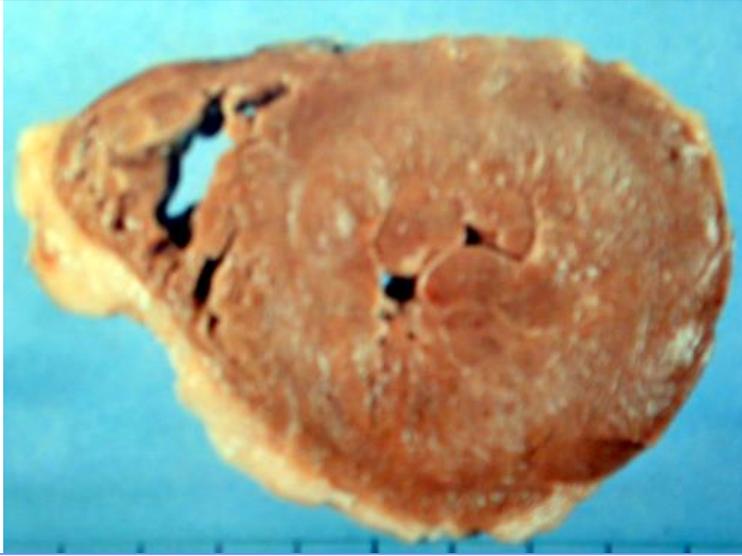
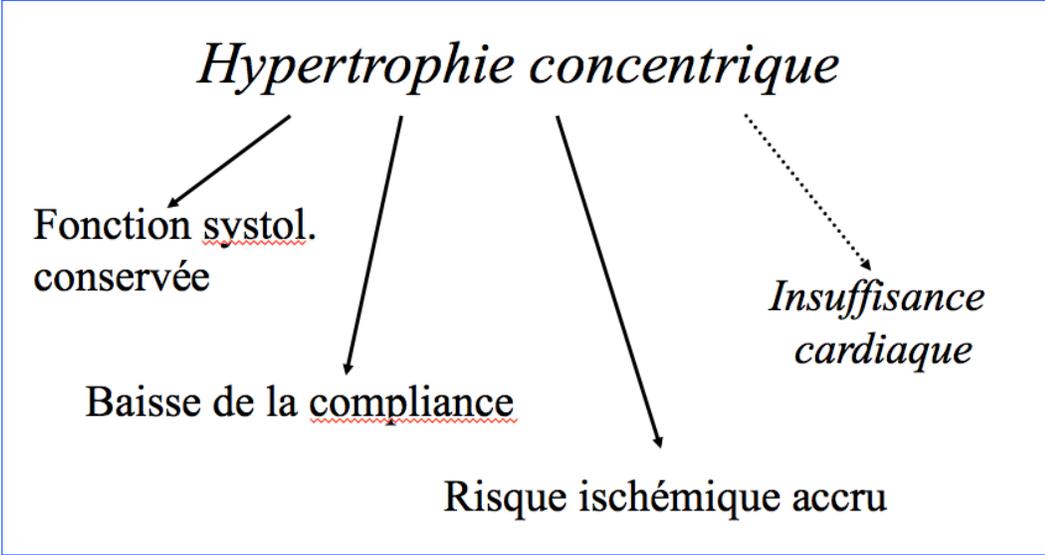
• Jeune, Poly-valvulaire, Maladie avec sténose prédominante

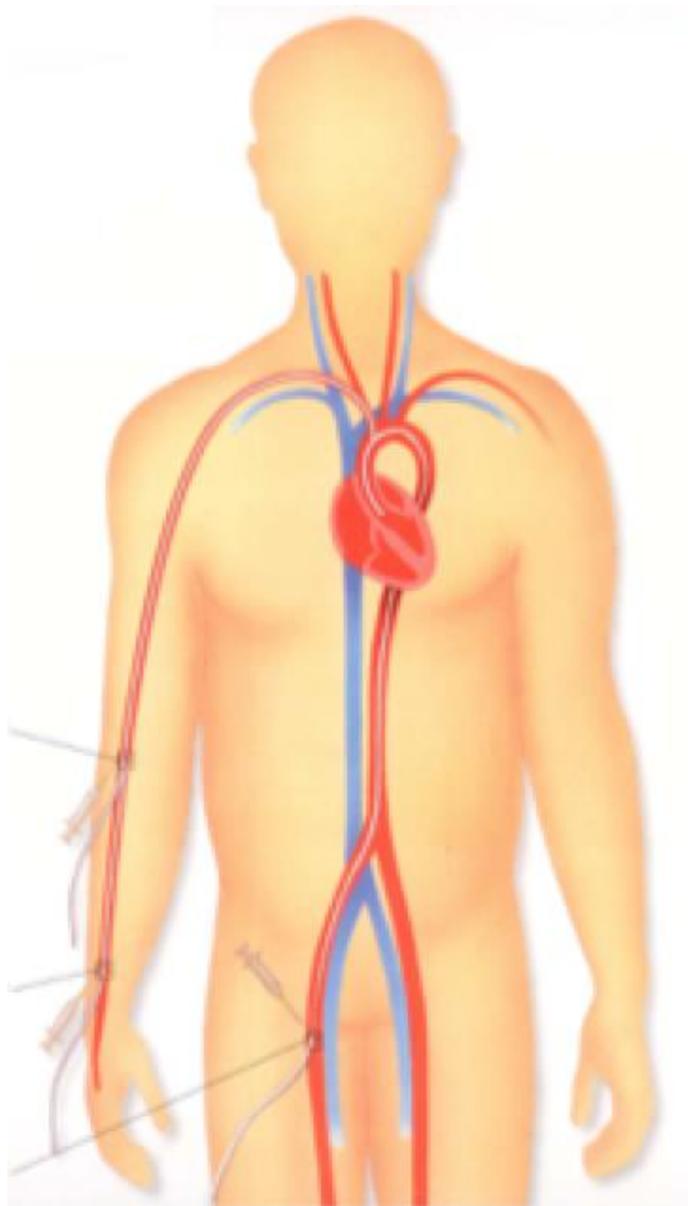
• Fusion commissurale et fibrose



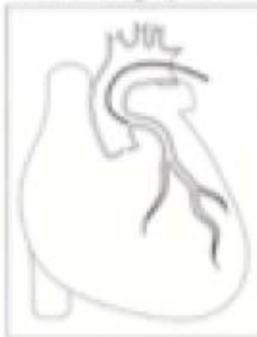
4) Causes rares

• Congénitaux (sus/intra/sous), Paget, IR des dialysés...





1. Coronarographie



2. ECG et mesure des pressions endocavitaires



3. Ventriculographie



Ventriculographie

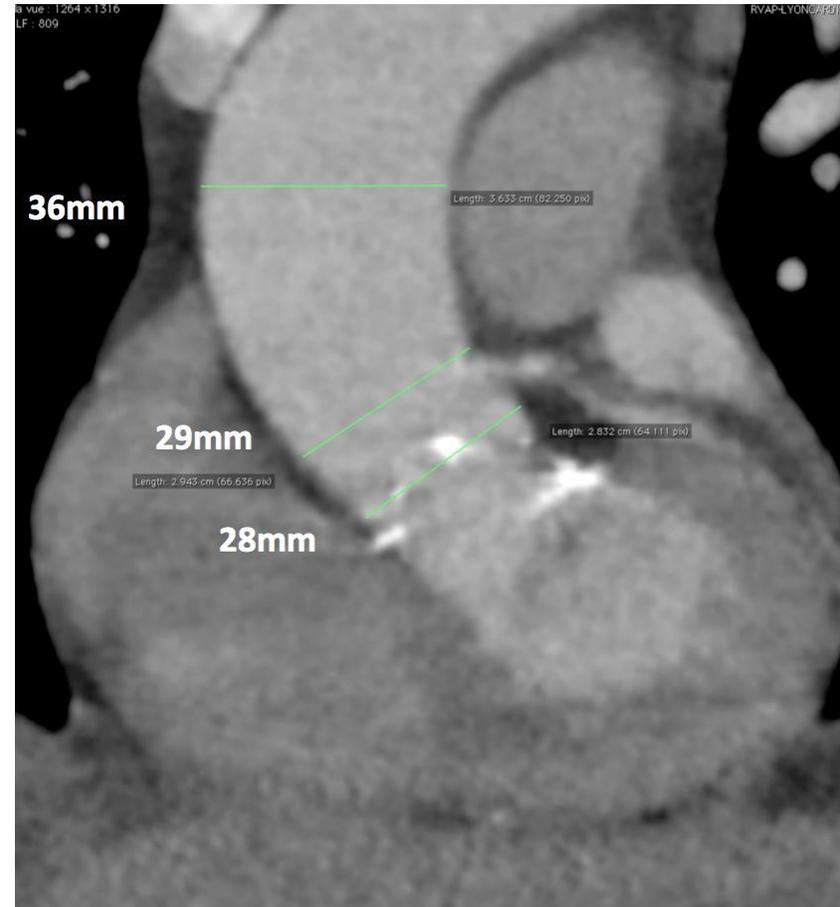
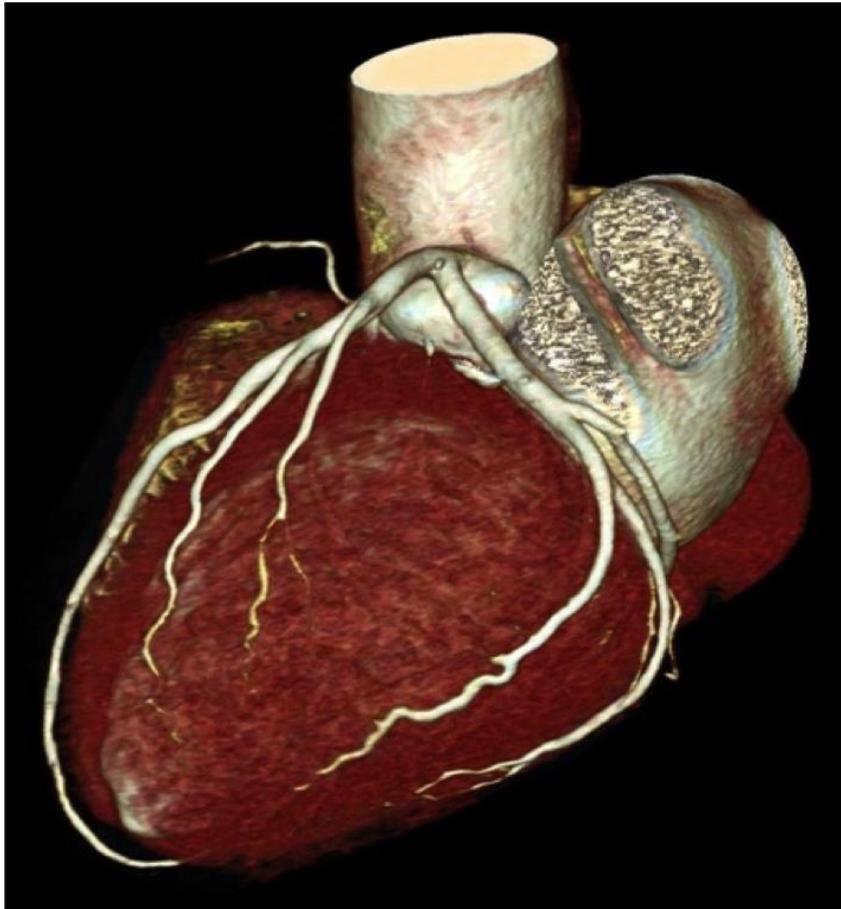
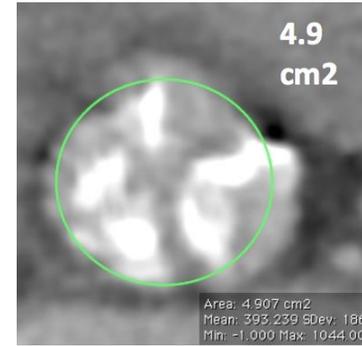
À éviter (écho ou Scinti)

Si discordance

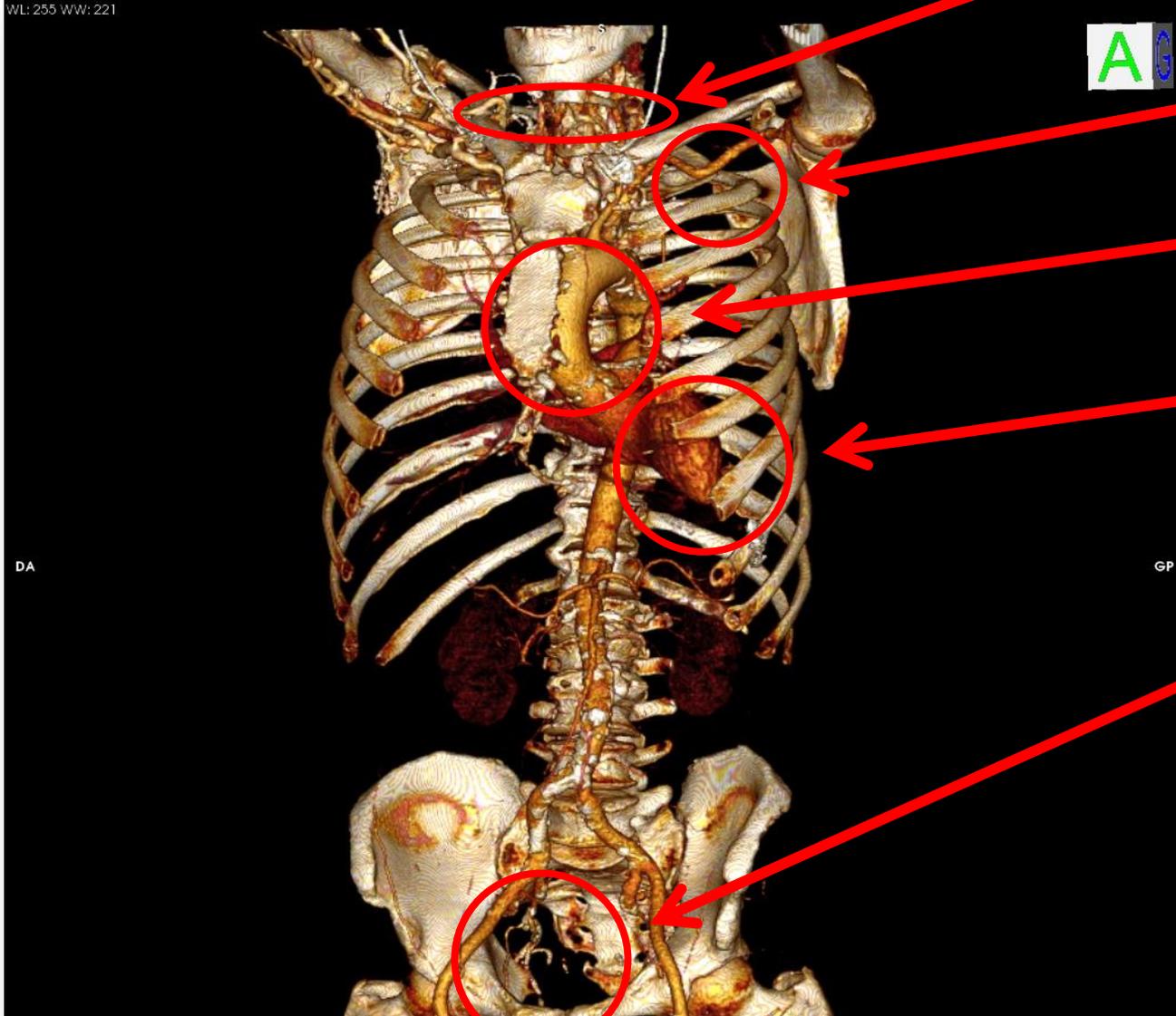
Formule de Gorlin

$$S = \text{Débit} / \text{TES} / \text{Grdt}$$

Coroscan & TAVI Sizing



WL: 255 WW: 221



Carotide R and L

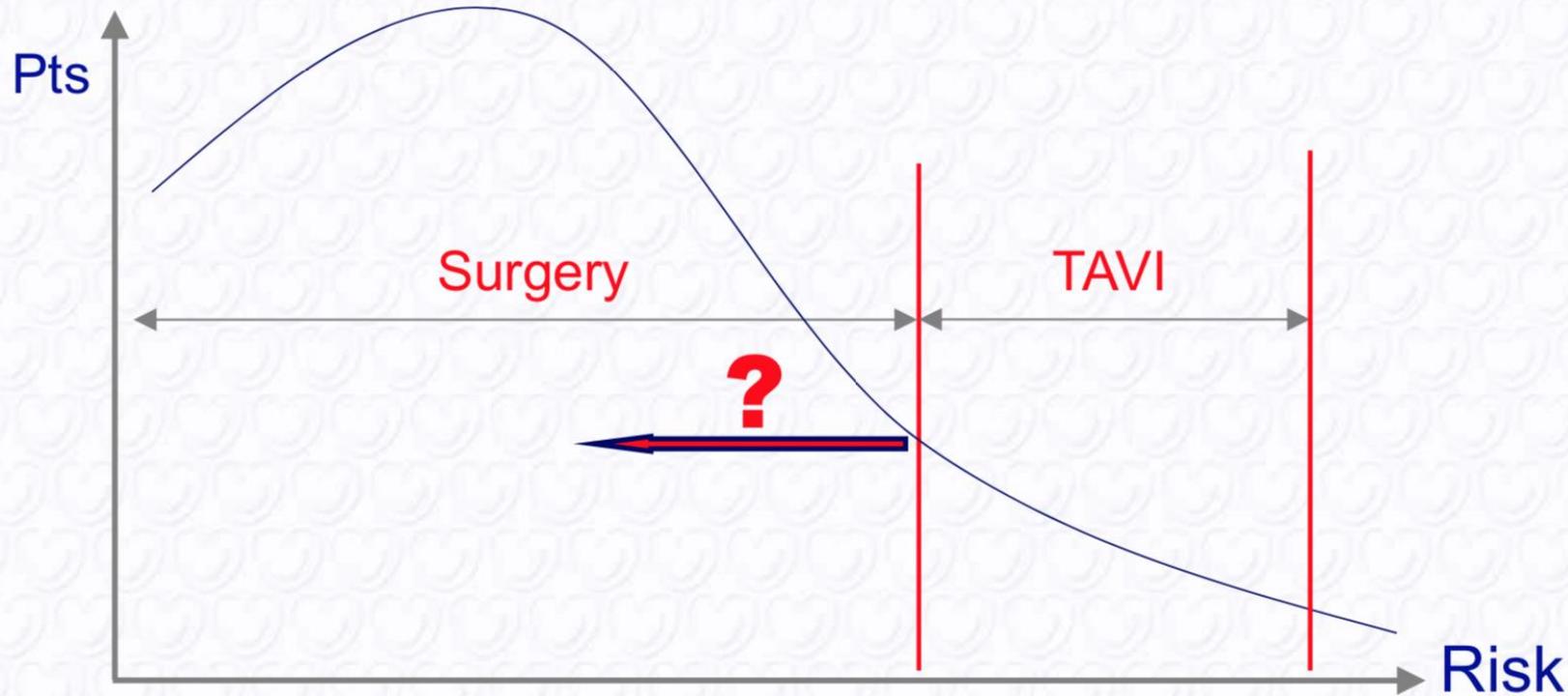
Sub-clavian

Direct transAo

transapicale

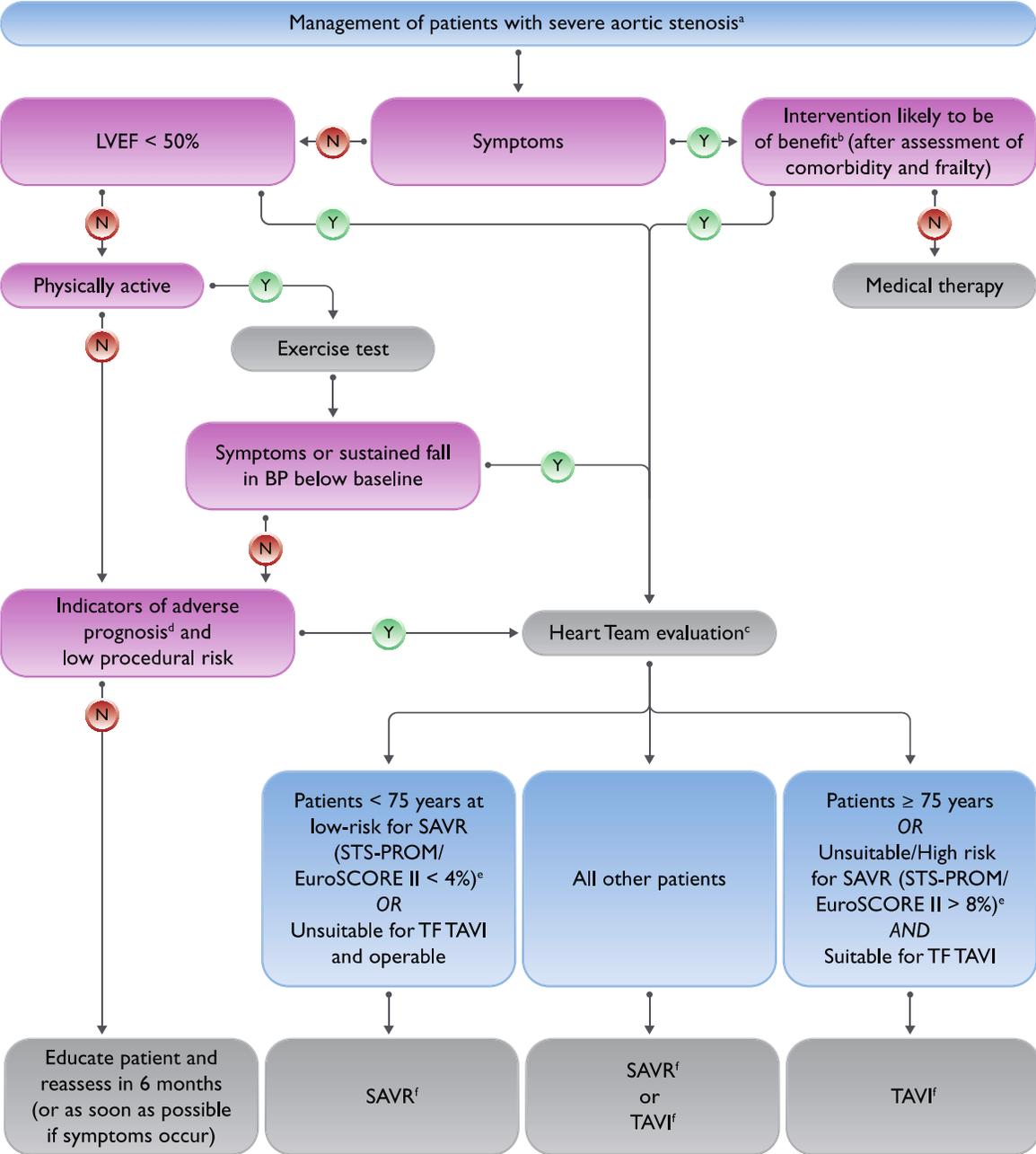
Trans femoral

Intermediate- and low-risk patients

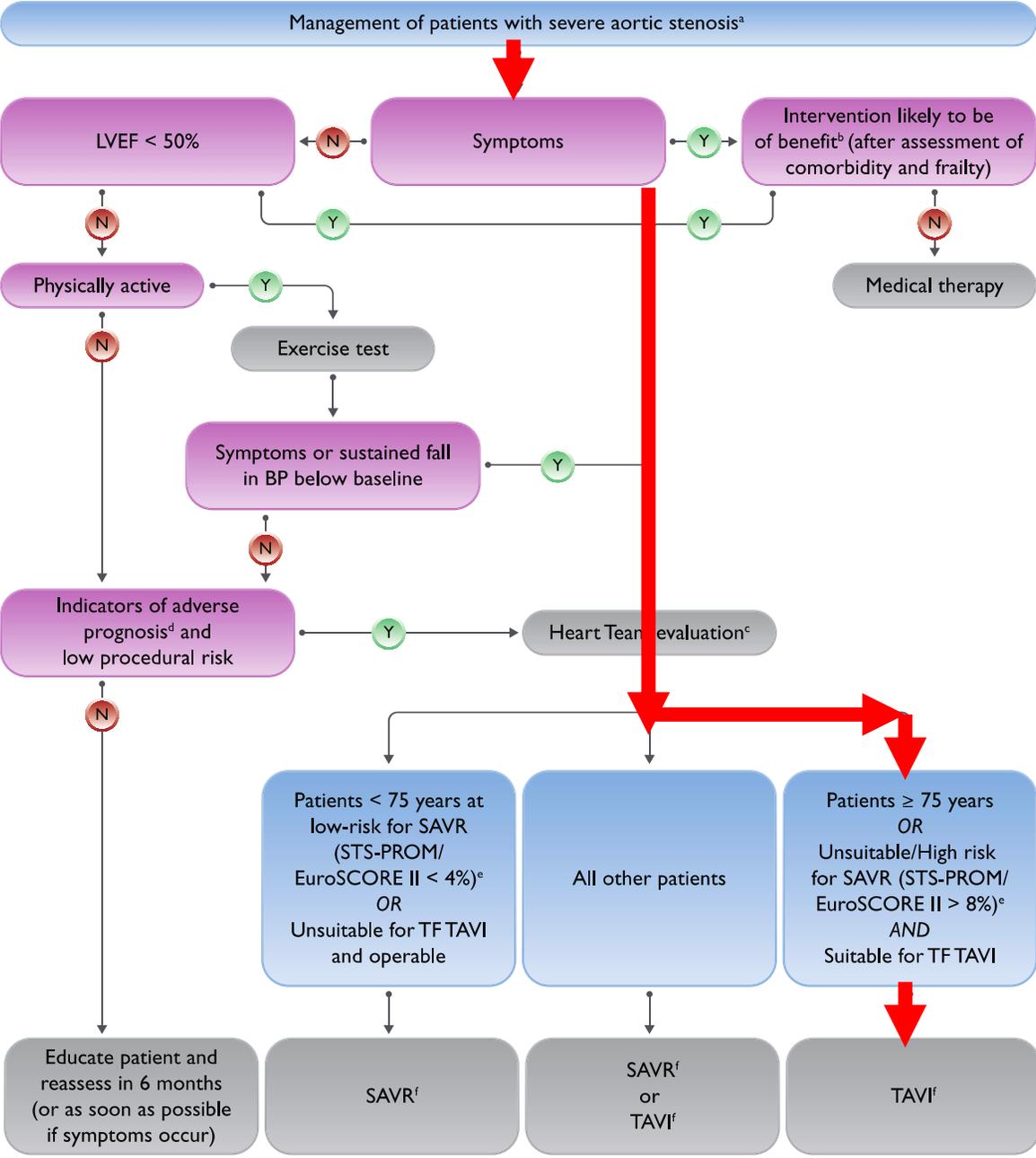


« At the present stage, TAVI should not be performed in patients at intermediate risk for surgery and trials are required in this population. »

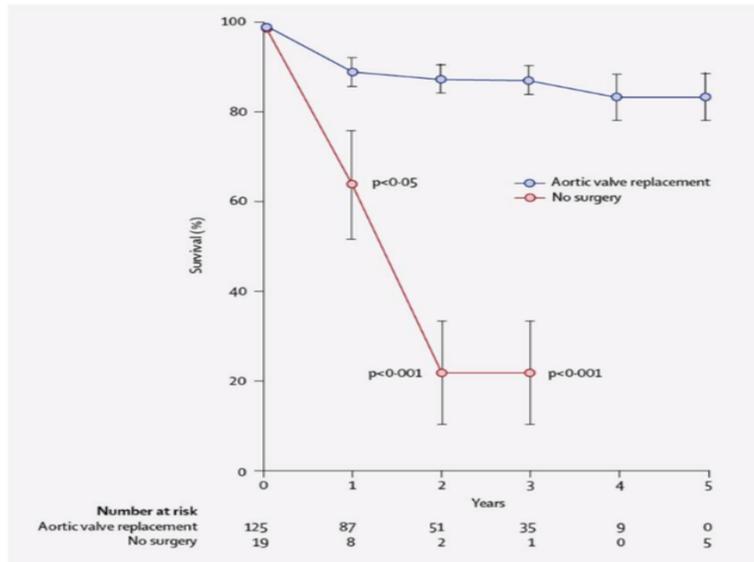
**2021 ESC/EACTS
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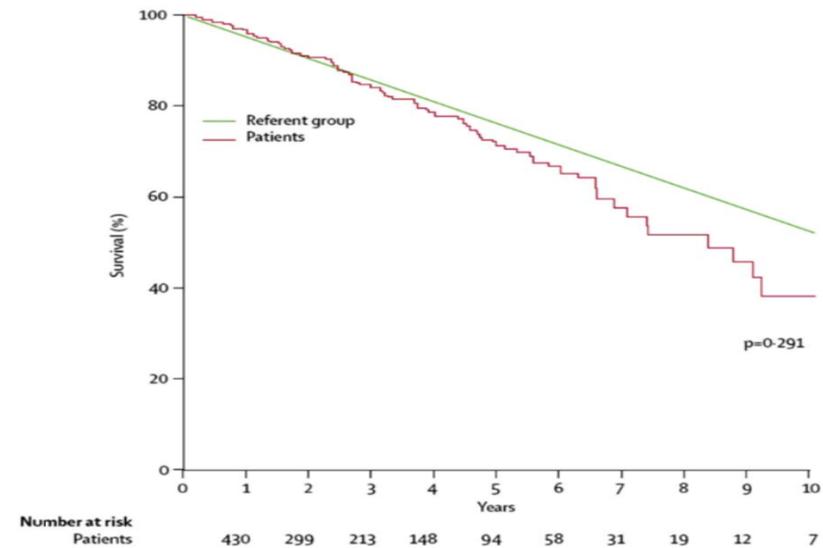


Symptomatiques



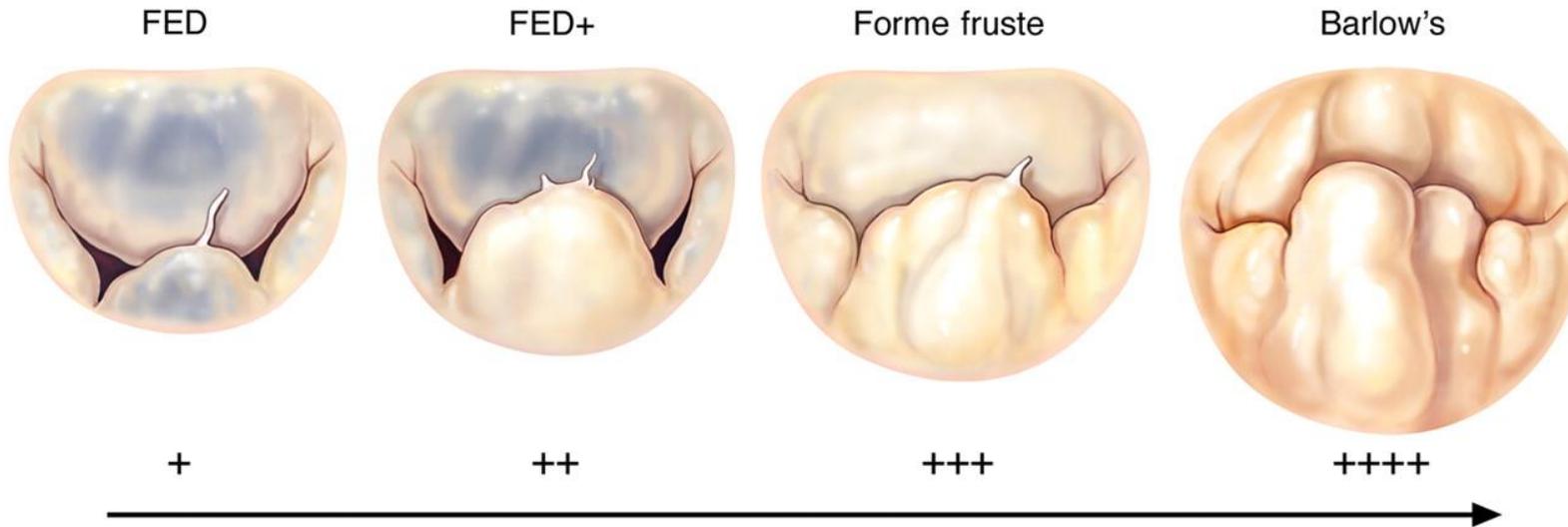
(Schwartz *et al.*
Circulation 1982;66:1105-10)

Asymptomatiques

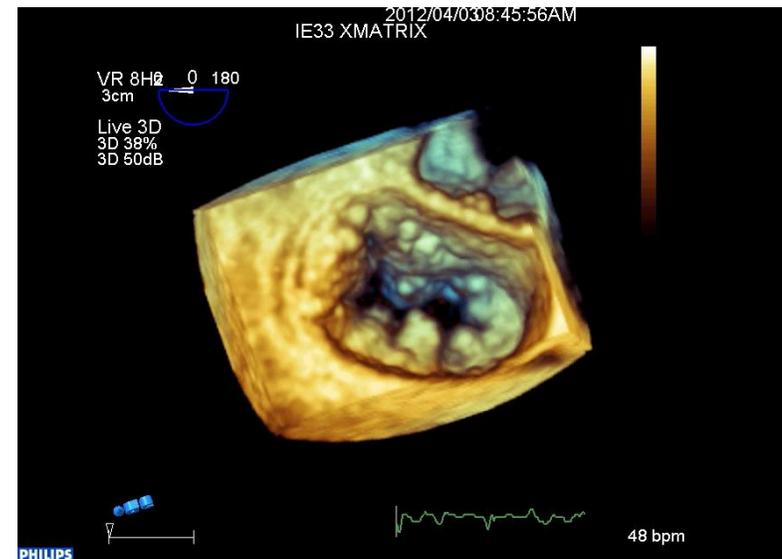


(Pellikka *et al.*
Circulation 2005;111:3290-5)

- **Mortality difference** for people with symptomatic AS treated with Aortic Valve Replacement (AVR) versus those not undergoing this procedure is **one of the most striking in medicine**¹ AVR can be withheld in such patients only when compelling contraindications exist

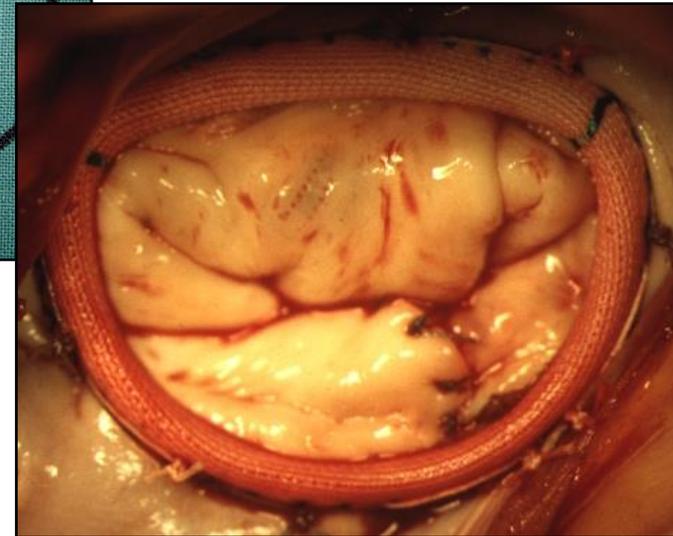
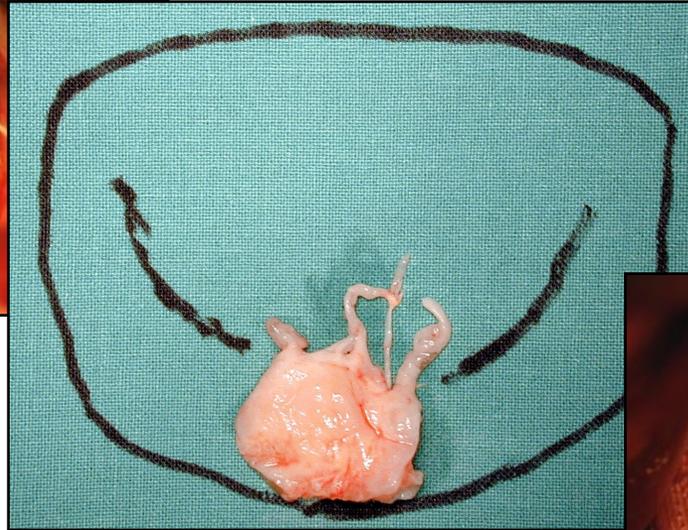
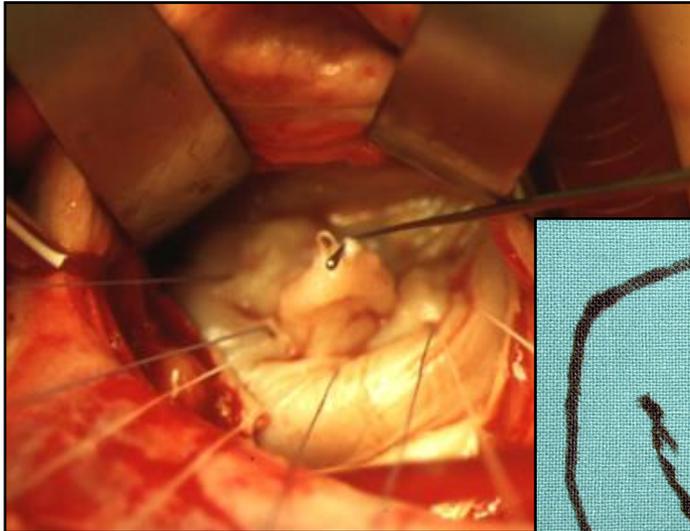


mitral tissue

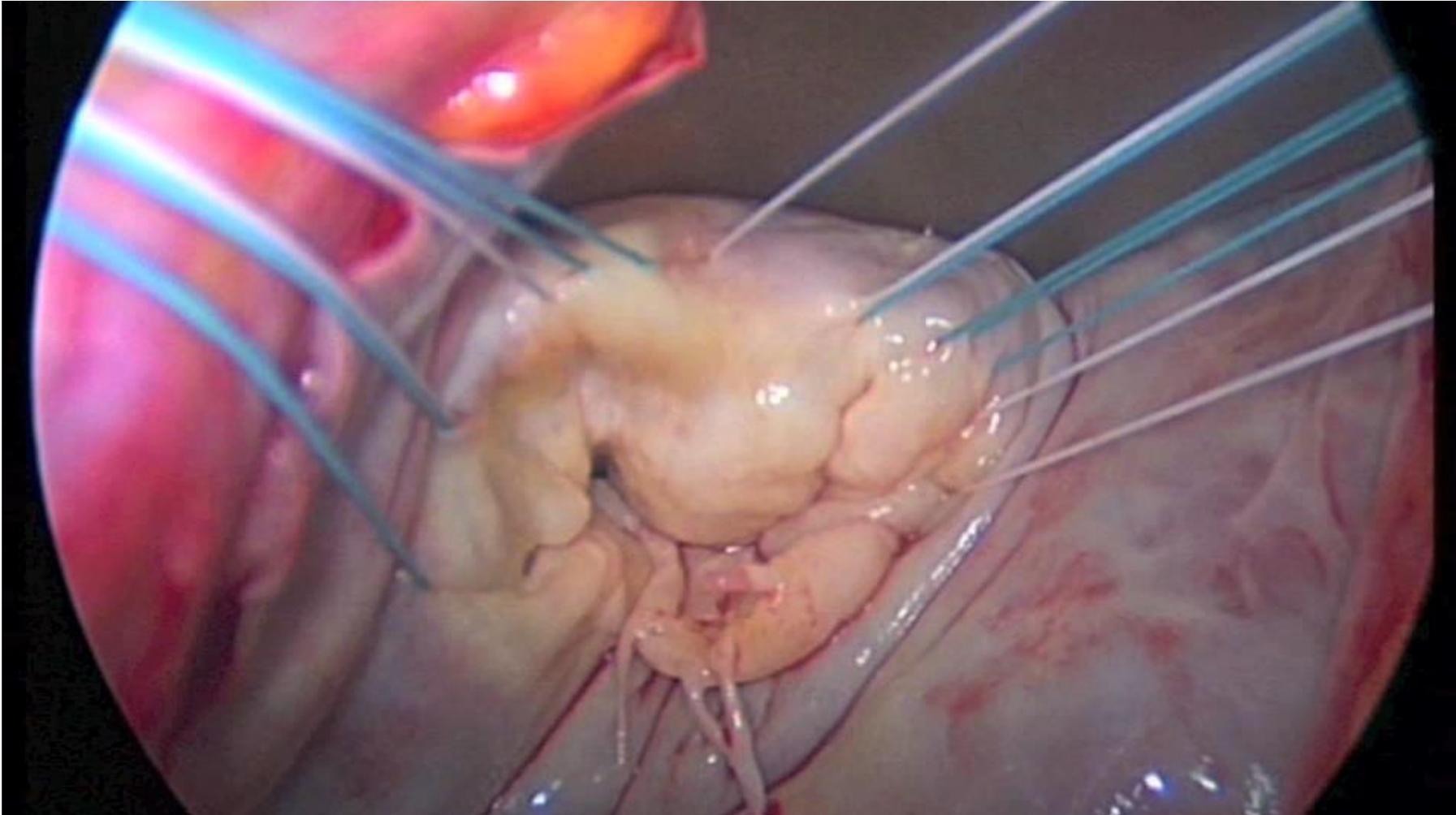


French Correction (A. Carpentier)

Mitral Valve Repair

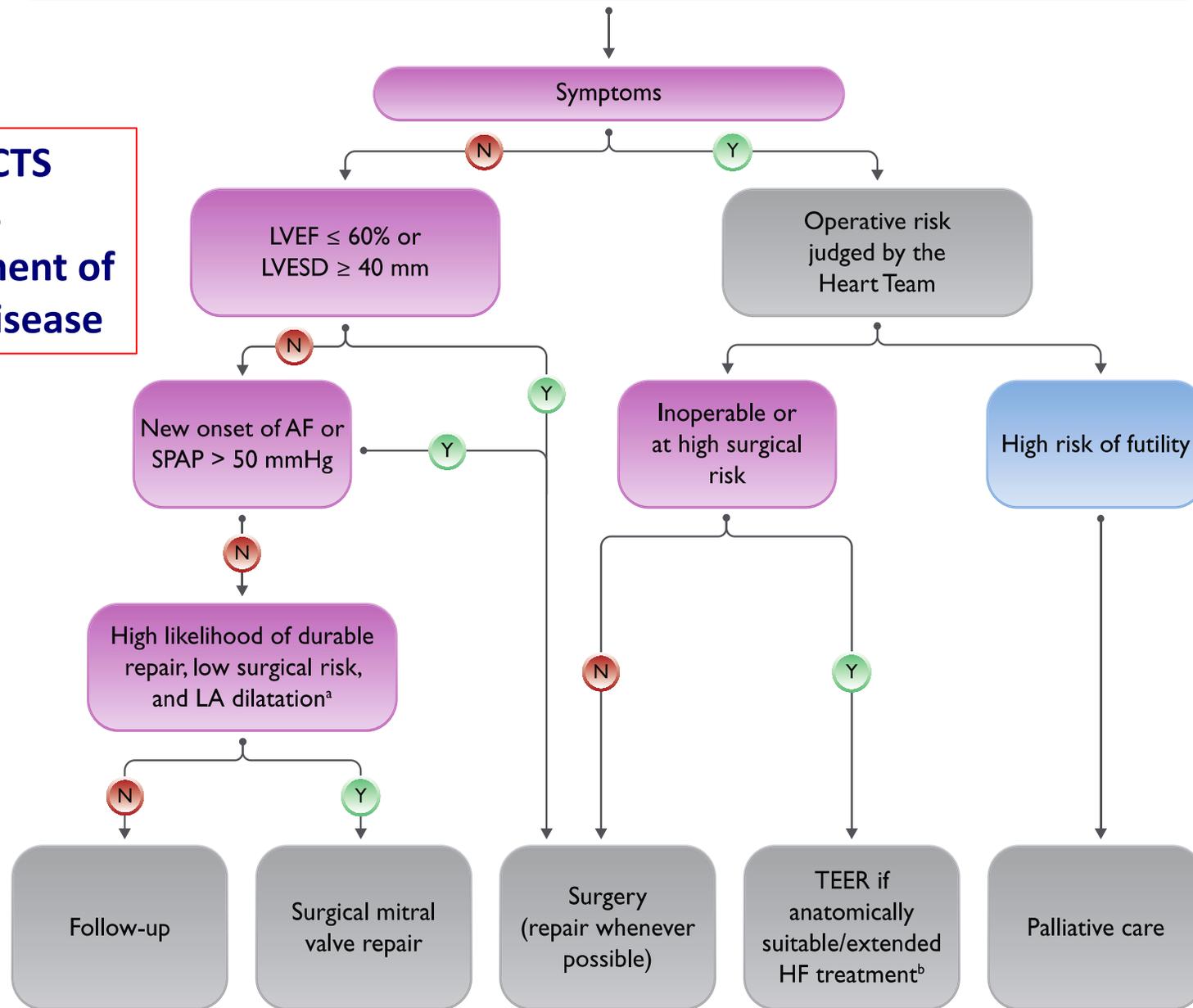


After > 2 000 Pts → *Cheap, safe and reproducible*



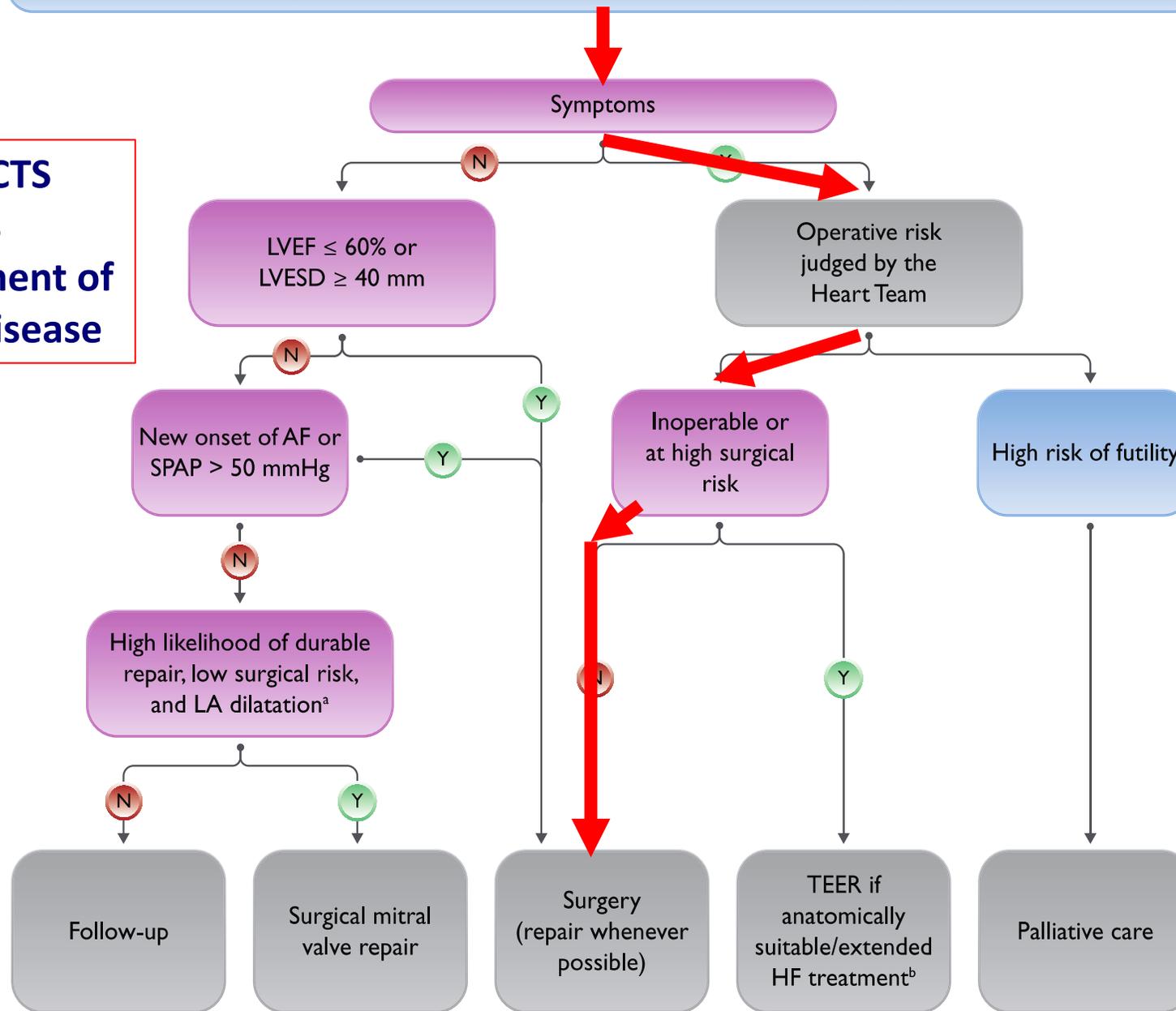
Management of patients with severe chronic primary mitral regurgitation

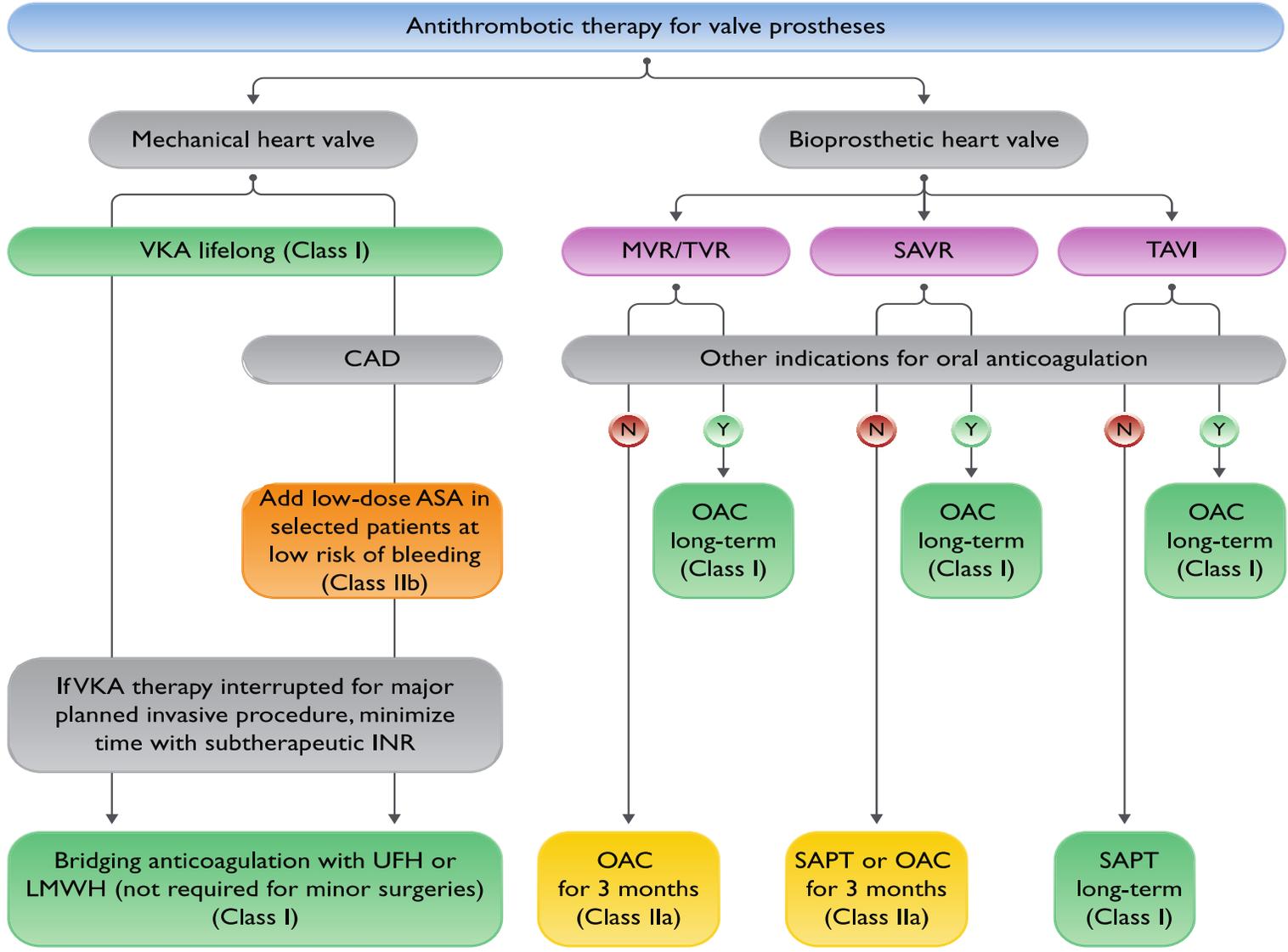
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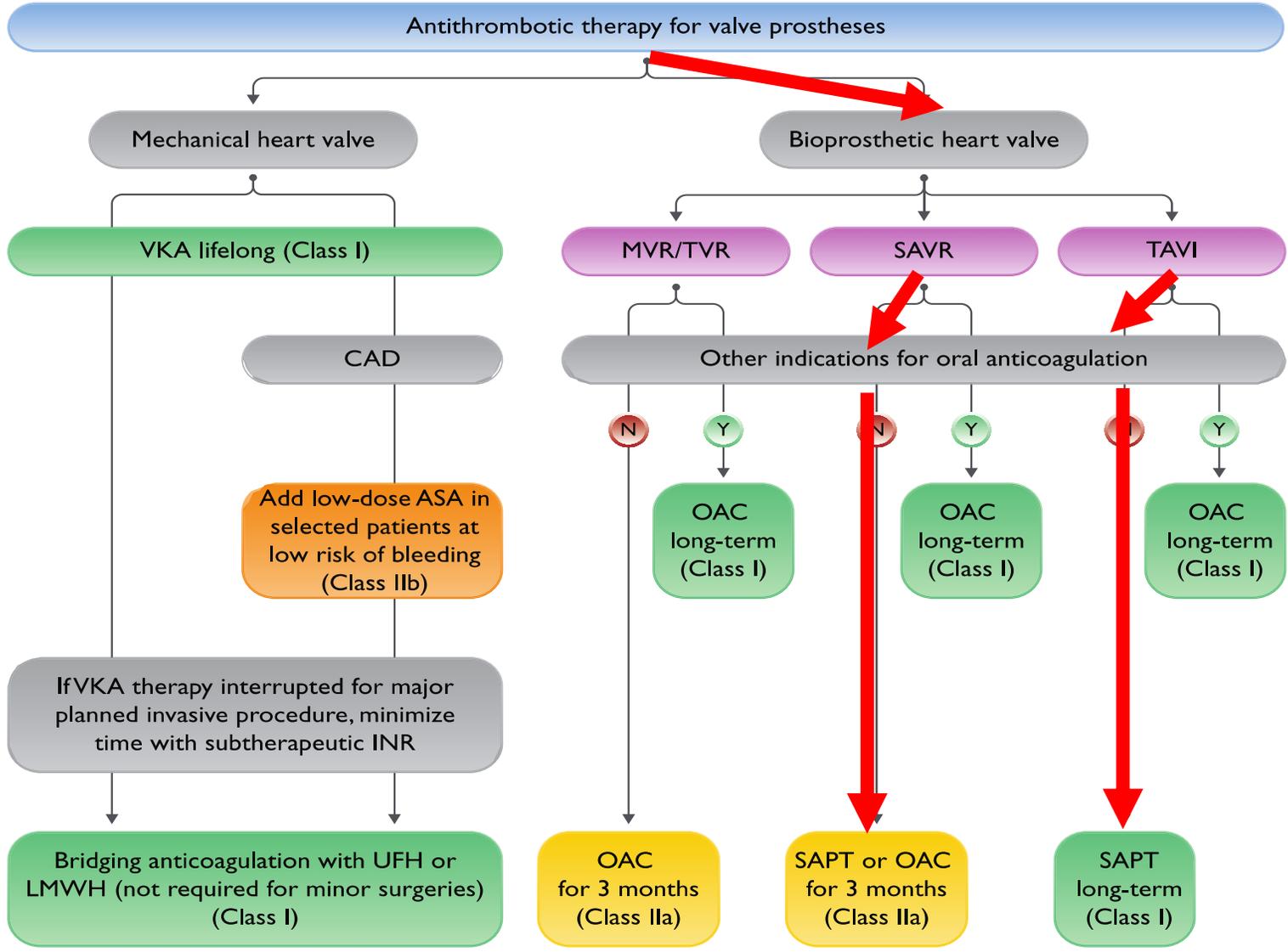


Management of patients with severe chronic primary mitral regurgitation

**2021 ESC/EACTS
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for the management of
valvular heart disease**







CHARTRE RCP / eStaff

Regular meetings at a precise time
(Weekly basis)

Pre-program announcing the files to
discuss

a minimum of 3 different specialties

Several members / Specialties

Involving Coordinator/nurse

Information /Confidentiality

Written decisions recorded

Signatures / date / session

Signature / Date / file

Yearly evaluation

FMC / EPP....

Décision médicale partagée



HAUTE AUTORITÉ DE SANTÉ

ÉVALUATION ET AMÉLIORATION DES PRATIQUES

Développement professionnel continu (DPC)
- Fiche méthode -

Réunion de concertation pluridisciplinaire (RCP)

Mai 2014

