

Amicale des Cardiologues de la Côte d'Azur
7/01/2025

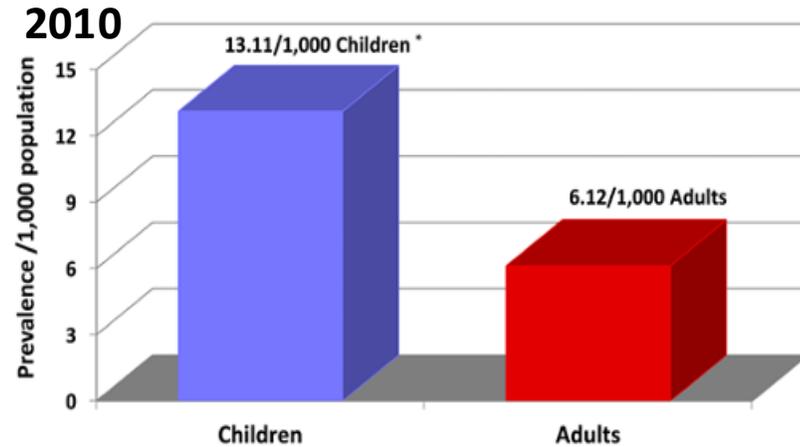
Cardiopathies Congénitales Adultes

Pr Sylvie Di Filippo
Centre Cardio-Thoracique de Monaco

Adultes cardiopathies congénitales

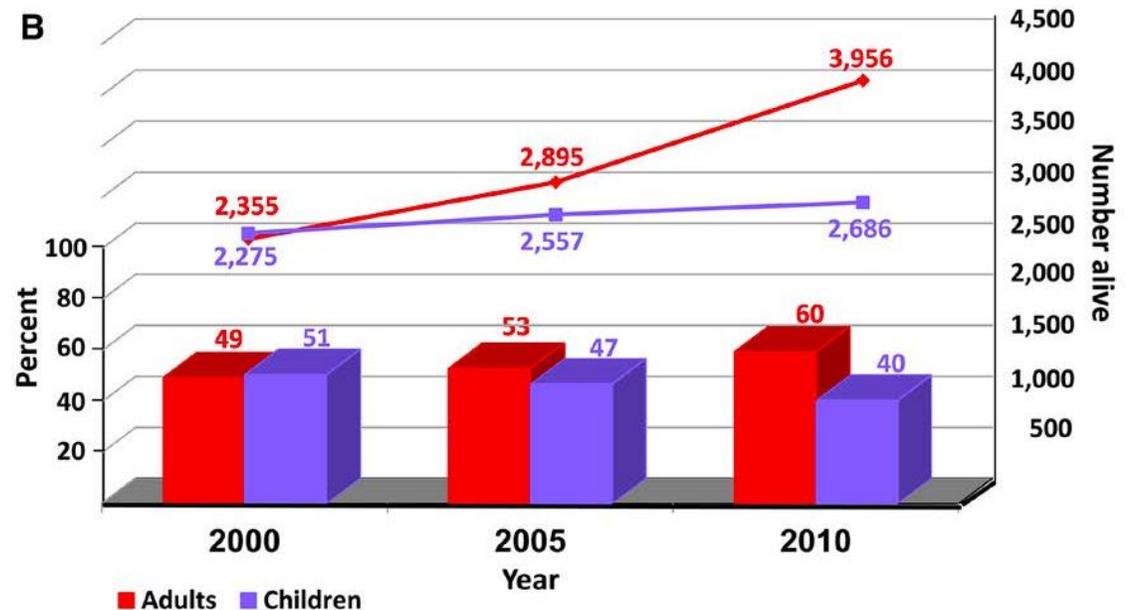
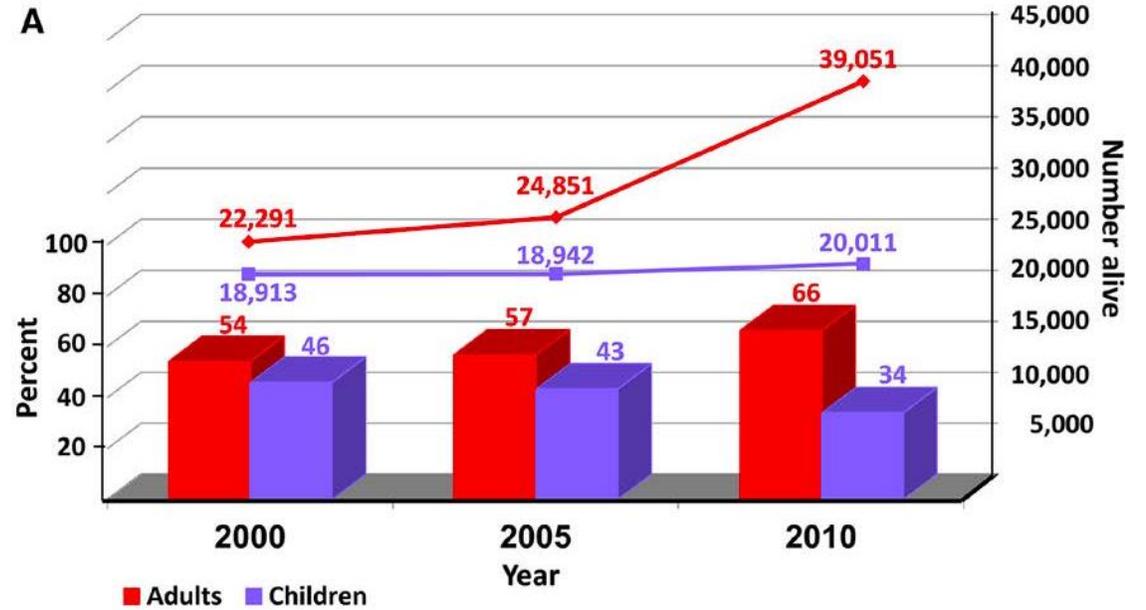
Cohorte en progression

- **Cardiopathies congénitales**
8 naissances /1000 = 775000 NN / an en France
- **Survie à 18 ans : 90%**
- **Adultes avec CC :**
 - USA = 1.5 millions
 - Europe = 1.2 millions



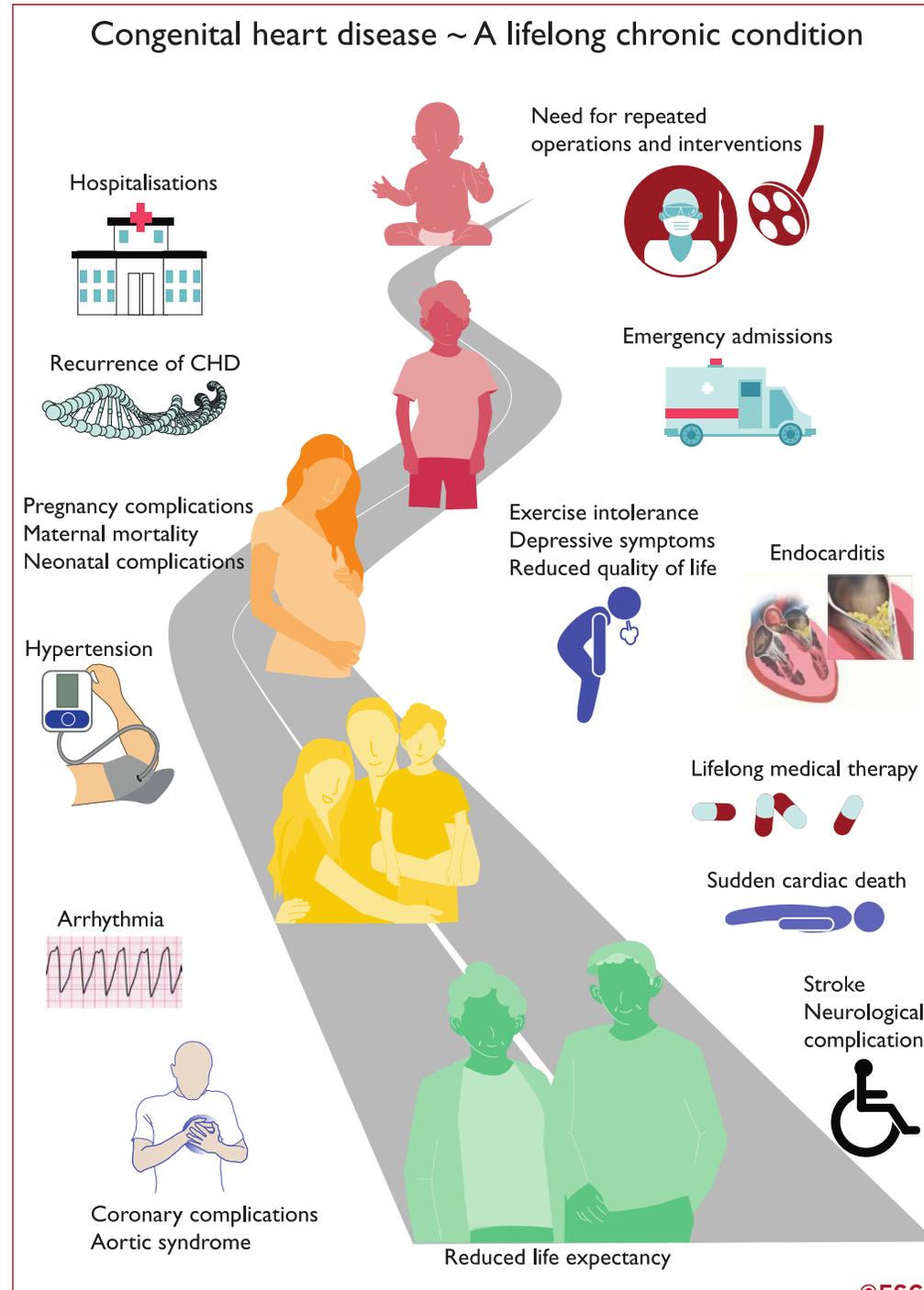
De 2000 à 2010:
augmentation de 70%
du nombre d'adultes vivant avec une CC

Circulation. 2014;130:749-756



2020 ESC Guidelines for the management of adult congenital heart disease

Eur Heart J 2021;42:563-645



Pathologie chronique

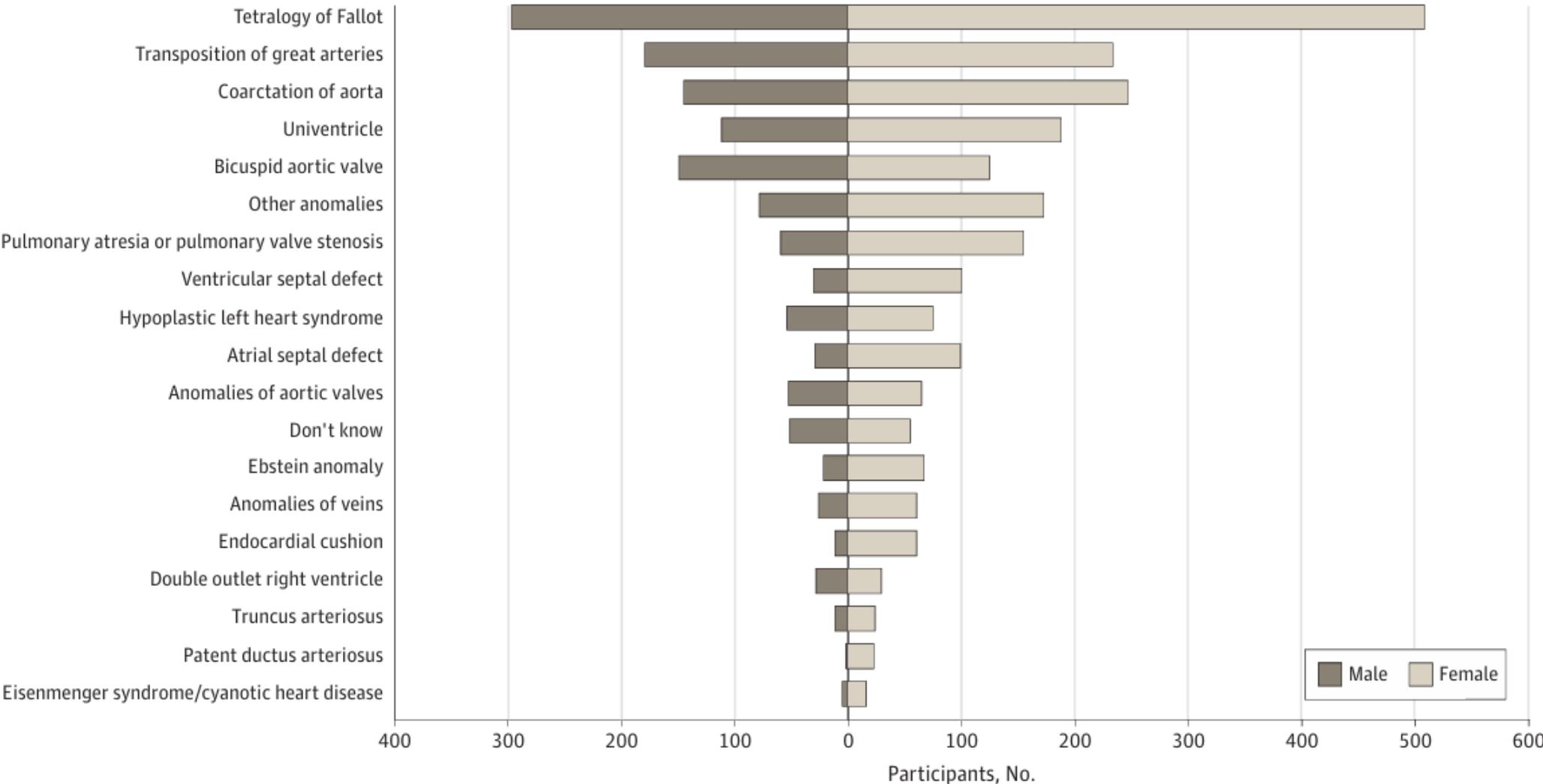
Parcours / Evènements tout au long de la vie

Classification des CC : selon la complexité

Catégorie	Type	Chirurgie	Ttt médic	Suivi	Qualité vie
CC mineure	CIV, CIA/FOP, CAP, RP, RA, PVM, BicAo RVPAPartiel	Non	Non	Espacé	Normale
CC significative « correctible »	TGV, Fallot CIV, CIA, CAP, CAVC/CAVP CoAo, IAAo RA, RP, Tronc commun VD systémique Ebstein mineur Anomalies coronaires	Oui 1 ou +	+/-	1/an ou +	Sub-normale
CC majeure « non correctible »	Ventricules uniques AT, APSI, hypoVG Ebstein majeur Eisenmenger VD systémiques complexes	+/- Palliation 1 ou +	Oui	Fréquent	Limitée

Congenital Heart Initiative (CHI) : digital, online, patient-empowered registry of patient-reported outcomes (PROs) in ACHD

4558 participants



Morbidité et suivi

EVENEMENTS

- **Arythmies ++**
- **Décompensation cardiaque**
- HTAP/ Syndrome d'Eisenmenger
- Coronaires / ischémie
- HTA / coarctation aortique
- Grossesse
- Hypoxie chronique
- Endocardite infectieuse

BILANS / MOYENS

- Explorations non invasives
ETT / ETO
- **Scanner**
- **IRM**
- **Cathétérisme diagnostique**
Hémodynamique
Calibration
- **Marqueurs biologiques**
BNP/ NTproBNP
Troponine
- **Exploration cardiorespiratoire**
VO2max

THERAPEUTIQUES

- **Cathétérisme (interventionnel)**
- **Chirurgie (reduct)**
- **Traitement médical**
- **Transplantation cardiaque**

Arythmies

- **Fréquence des arythmies**

Supraventriculaire / Ventriculaire

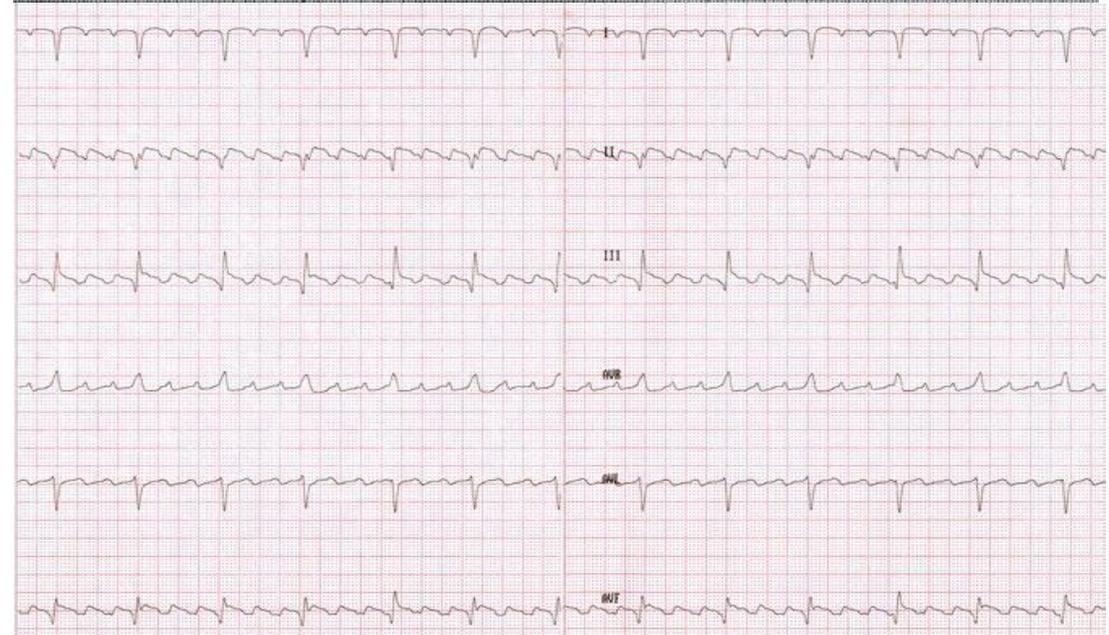
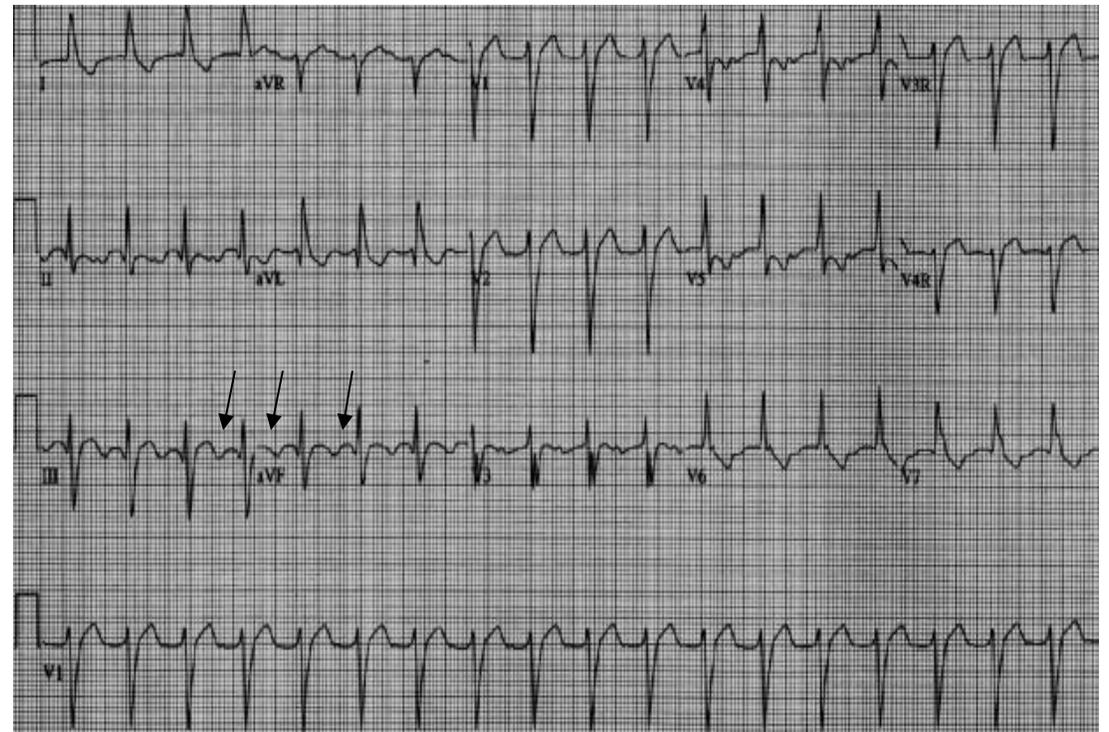
FA, flutter A, TV, FV

- **Risque de**

- **Mort subite**

- **Décompensation cardiaque**

➔ **Mauvaise tolérance hémodynamique**



Arythmies

Facteurs favorisants

- Ventriculotomie/ atriectomie
 - Circuits de réentrées
- Distension myocardique
- Dysfonction myocardique
- Fibrose myocardique
- Hypoxie chronique
- Blocs postopératoires: BAV, BDB

Cardiopathies

Fallot
 TGV avec VD sous aortique (Mustard)
 Ebstein
 TGV corrigée (double discordance)
 Ventricule unique

Type of CHD	Supraventricular arrhythmias			Ventricular arrhythmias and SCD		Bradycardia				
	AVRT	IART/EAT	AF	Sustained VT	SCD	SND		AV block		
						Congenital	Acquired	Congenital	Acquired	
Secundum ASD		++	++			(+)	+		(+)	
Superior sinus venous defect		++	+				+			
AVSD/primum ASD		++	++	(+)		(+)		(+)	++	
VSD		+	(+)	+	(+) ^a				+	
Ebstein anomaly	+++	++	+	(+)	++ ^b		++			
TOF		++	++	++	++		+		+	
TGA										
Atrial switch		+++	+	++ ^c	+++ ^b		+++		+	
Arterial switch		+		+ ^c	(+)		(+)			
ccTGA	++	+	+	(+)	++ ^b			+	++	
Fontan operation										
Atriopulmonary connection		+++	++		+ ^b		++			
Intracardiac lateral tunnel		++	+		+ ^b		++			
Extracardiac conduit		+	+		+ ^b		+			
Eisenmenger physiology Incompletely palliated CHD		++	++		++ ^d					

Empty cells indicate that although not specifically indicated, arrhythmic events may occur (no symbol).

(+) = minimal risk + = mild risk ++ = moderate risk +++ = high risk

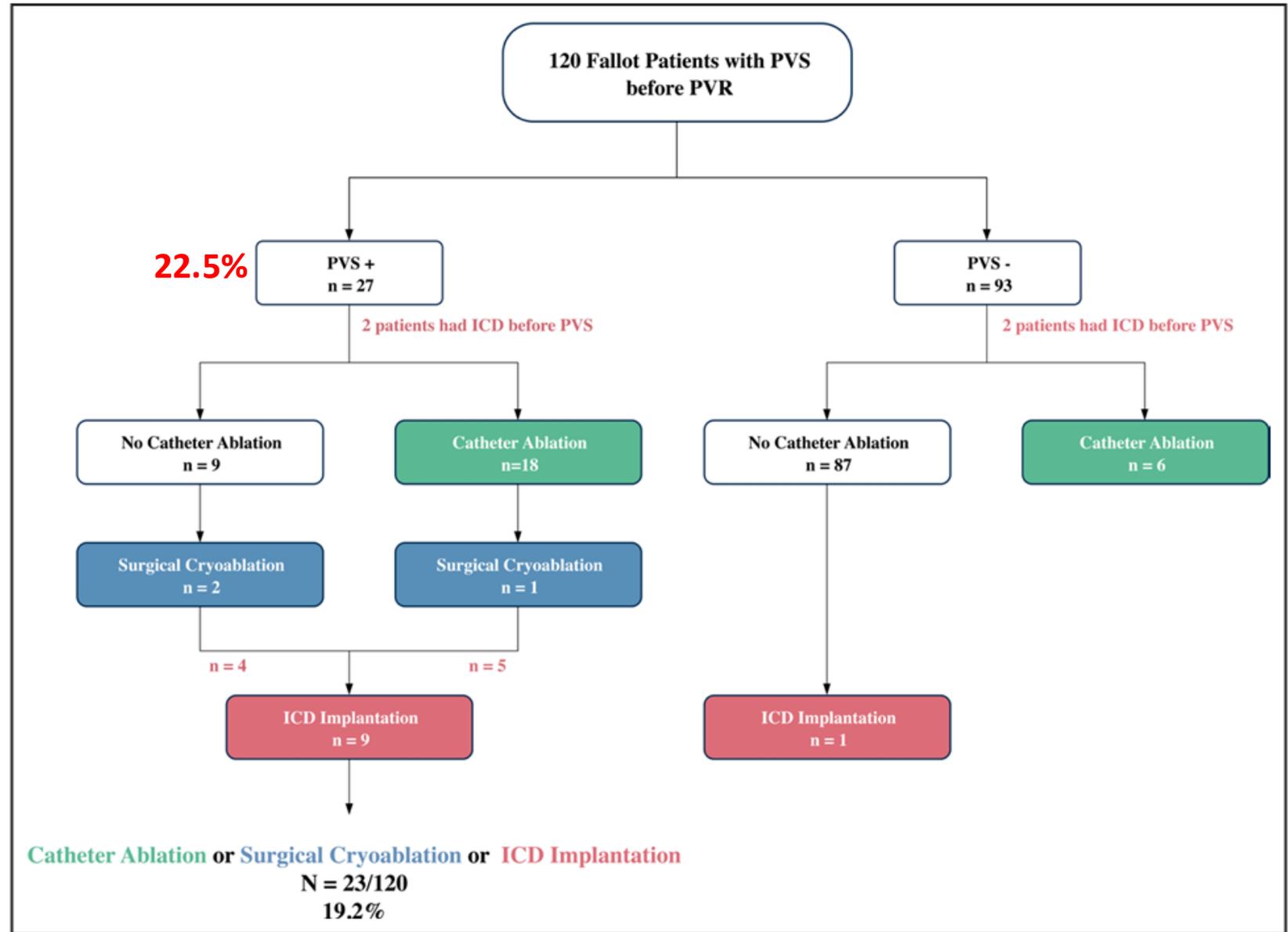
Circ Arrhythm Electrophysiol
2023;16:e011745.

FALLOT

EPP systématique
avant RVP

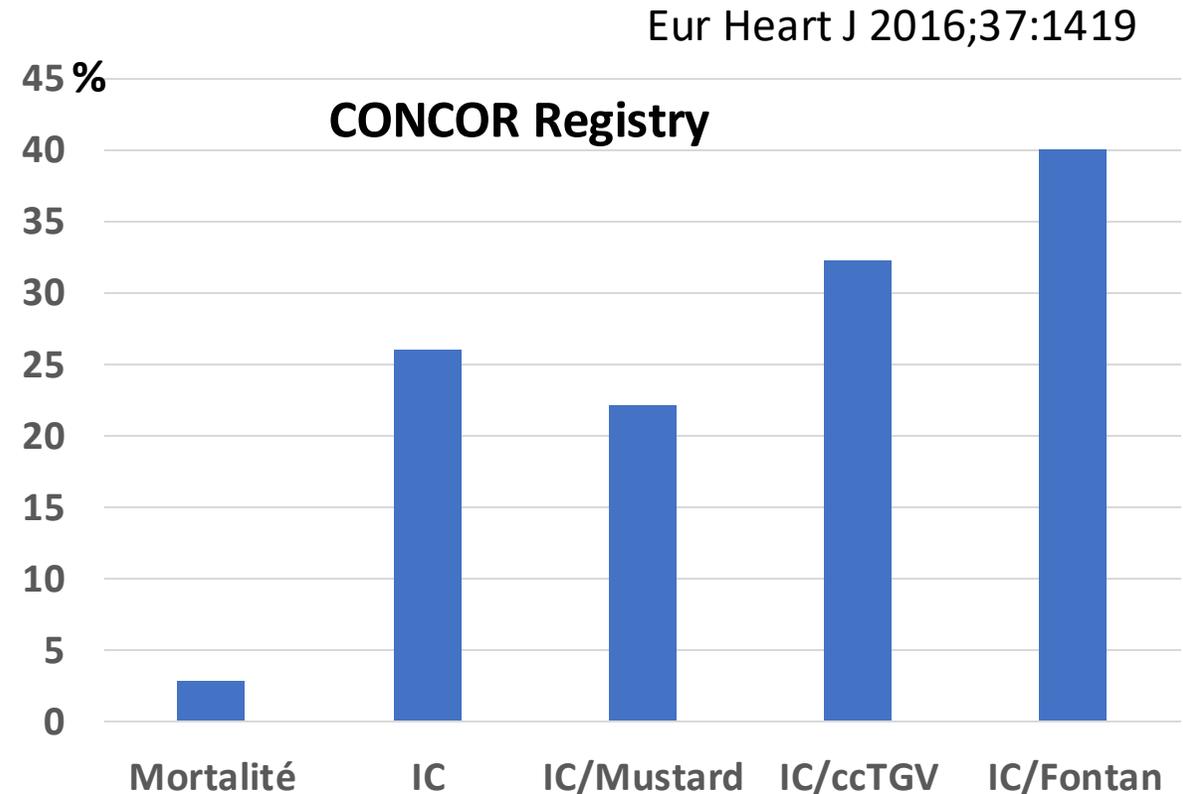


22.5% inducible



Insuffisance cardiaque

- **VG mais aussi VD ou ventricule unique**
 - VD systémique: sous aortique
 - VU de type droit
 - VG en hypoxie chronique
- **Facteurs de risque**
 - CEC itératives
 - Ventriculotomies
 - Surcharge volumétrique
 - Arythmies
 - Obstacle
 - Fuites valvulaires
 - Ischémie
- **Evaluation difficile** : VD, VU
- **Traitements classiques** : moins efficaces ?



Insuffisance cardiaque (IC)

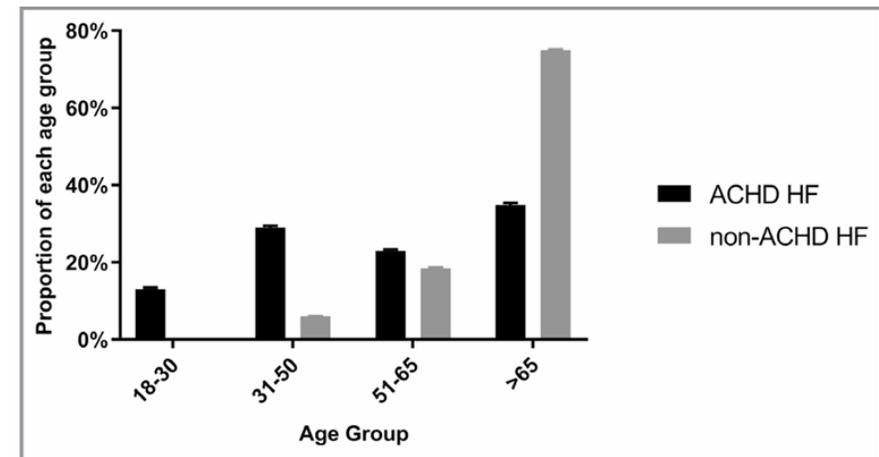
Intern J Cardiol 2021;322:149-157

- Risque cumulé d'IC à l'âge de 65 ans
= **12.58%**
- Facteurs de risque à 1 an
 - Age \geq 50 ans
 - Genre masculin
 - Sévérité de la CC
 - Accès d'IC récent (< 1 an)
 - HTAP
 - Insuffisance rénale chronique
 - Coronaropathie
 - HTA
 - Diabète

Heart 2021;107:807-813.

Patients avec IC	Groupe CC 76 557 cas	Groupe non-CC 31 137 414 cas
Age	V.Unique : 33 ans, Bi-Ventriculaire : 62 ans	74 ans
Admissions en urgence	78%	70%
Mortalité	V.Unique : 6.6% Bi-Ventriculaire : 6.3%	5.5%
Hospitalisation sur 10 ans	+ 46%	+ 6%

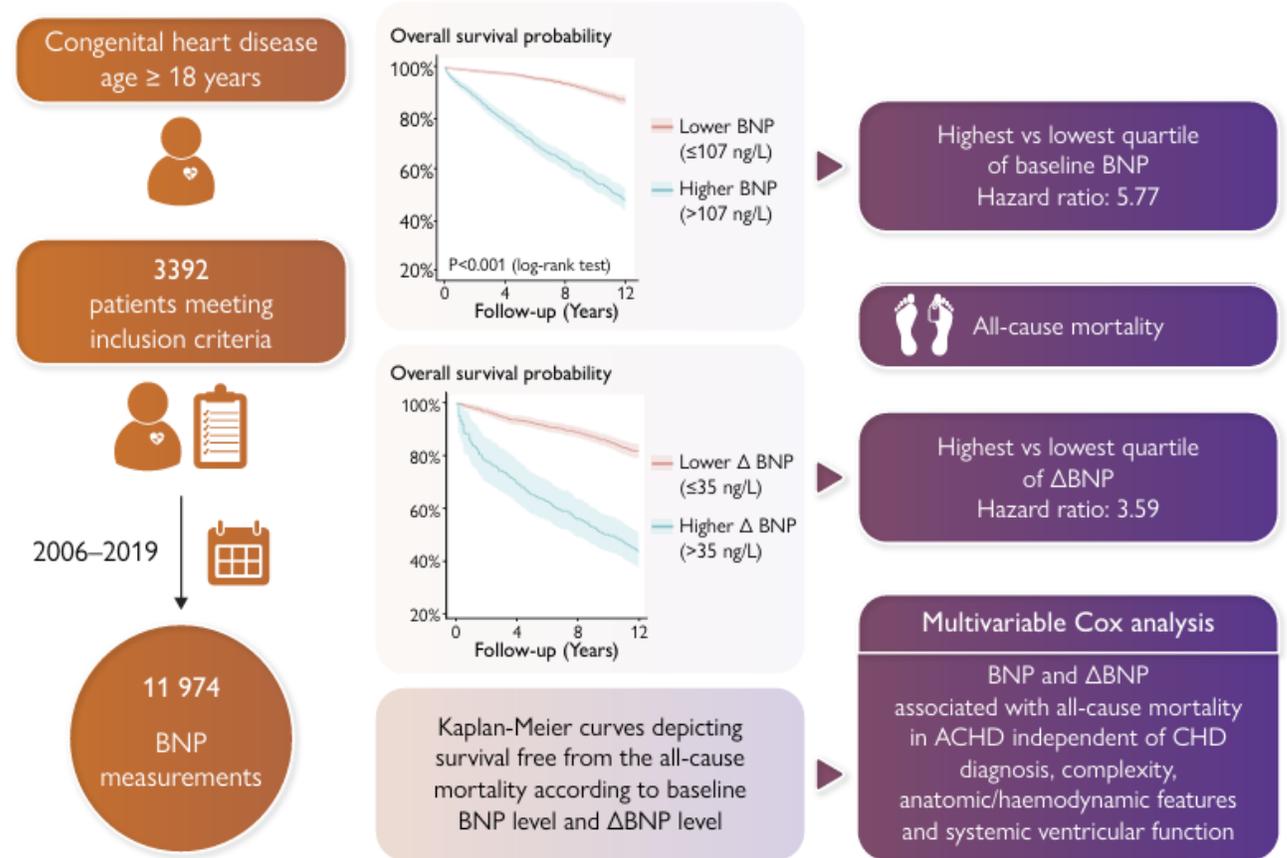
J Am Heart Assoc. 2018;7:e008775



Marqueurs biologiques : BNP

European Heart Journal 2024;45:2066–2075

- 3392 patients avec CC
- Endpoint = mortalité toutes causes
- 11 974 mesures de BNP
- BNP median basal = 47 (24–107) ng/L.
- Follow-up median = 8.6 ans
- Décès : 615 (18.1%)
- **BNP basal et modifications taux BNP : prédictifs de mortalité**
- **BNP basal >107 ng/L et augmentation BNP >35 ng/L = facteur de risque de mortalité**



- Variabilité du taux dépendant de la cardiopathie et de la réparation
 - *Plus utile dans cardiopathie bi-ventriculaire*
 - *Moins utile dans cardiopathie uni-ventriculaire et Fontan*
- Identification des cas à risque de complications
- Taux augmenté dans CC cyanogène par sécrétion peptide due à l'hypoxie

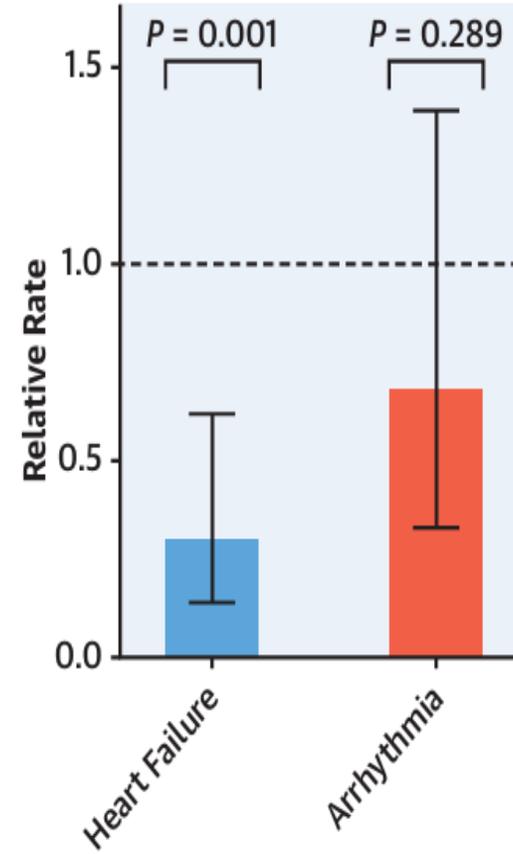
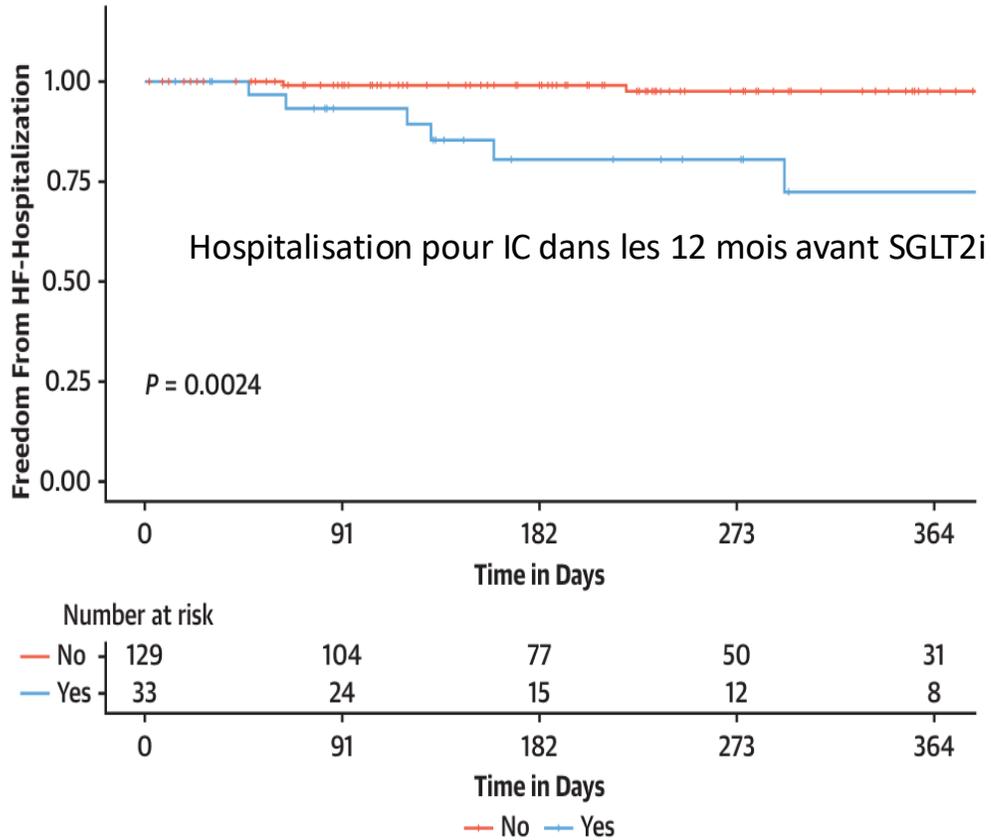
ESC Guidelines 2020.

Eur Heart J 2021;42:563 645

Glifozine SGLT2i et CC

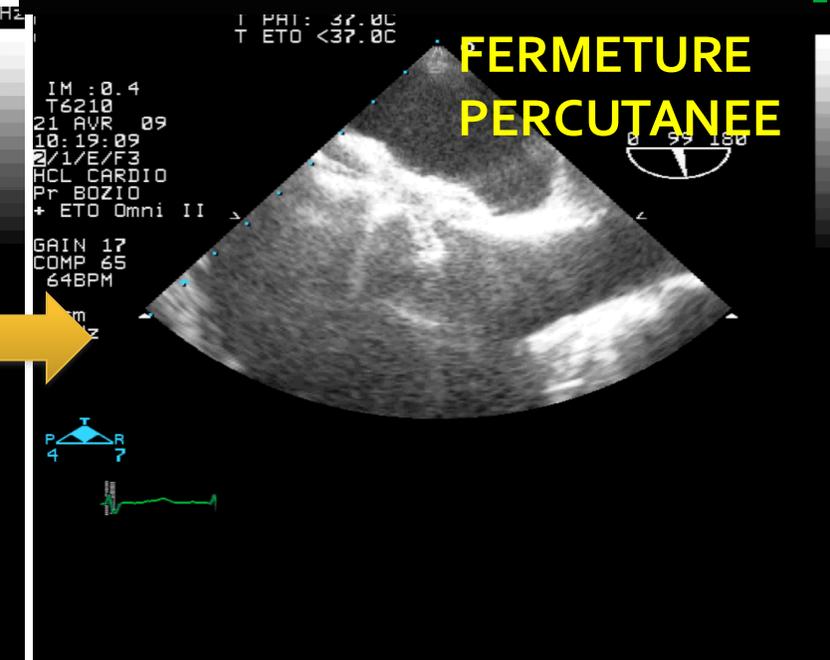
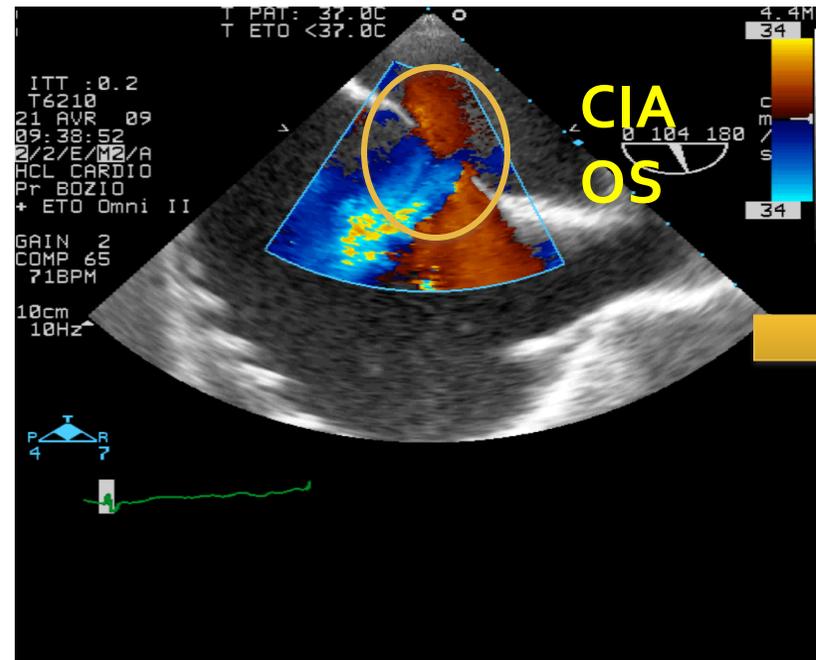
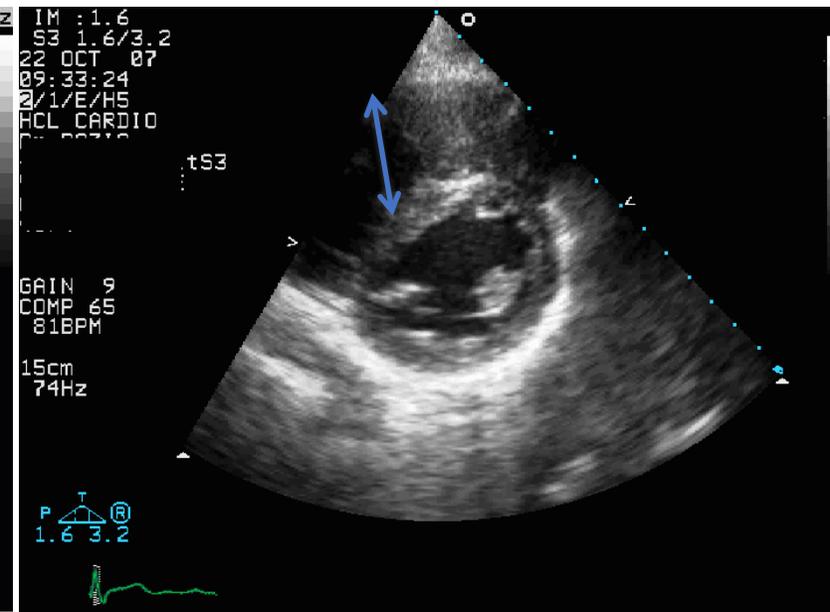
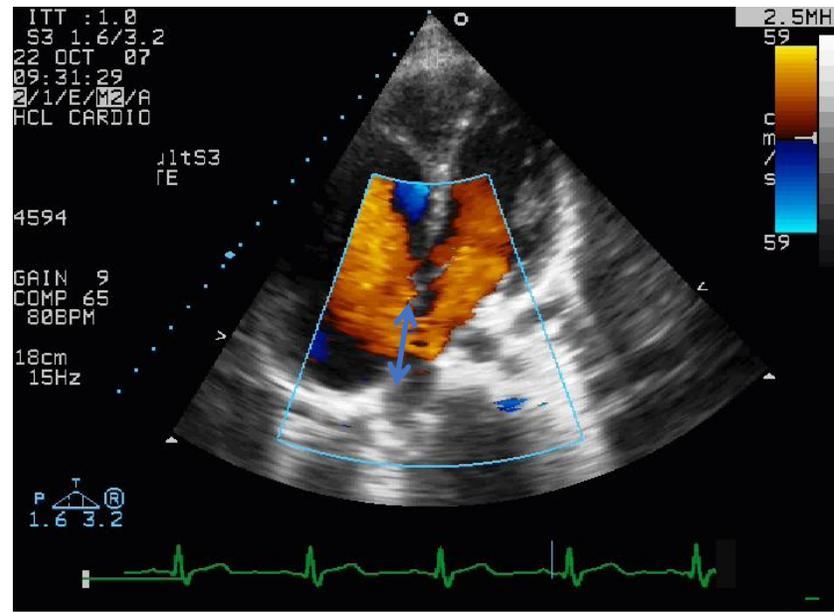
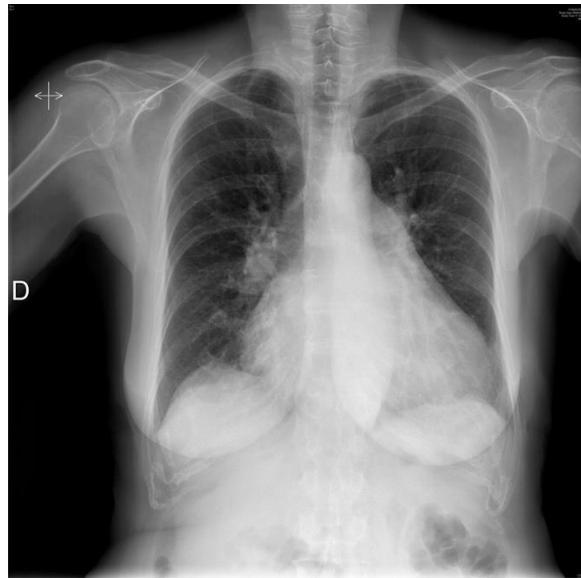
Réduction au tiers des hospitalisations pour IC

3-Fold Reduction in Heart Failure Hospitalization Rate:
Relative Rate = 0.30 (95% CI: 0.14-0.62), $P = 0.001$
No Significant Reduction in Arrhythmia Admission Rate



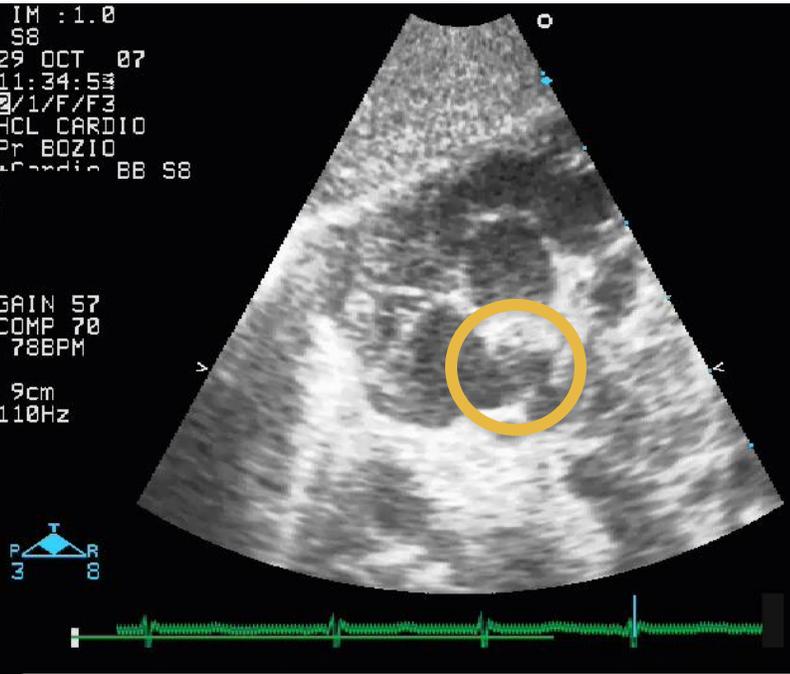
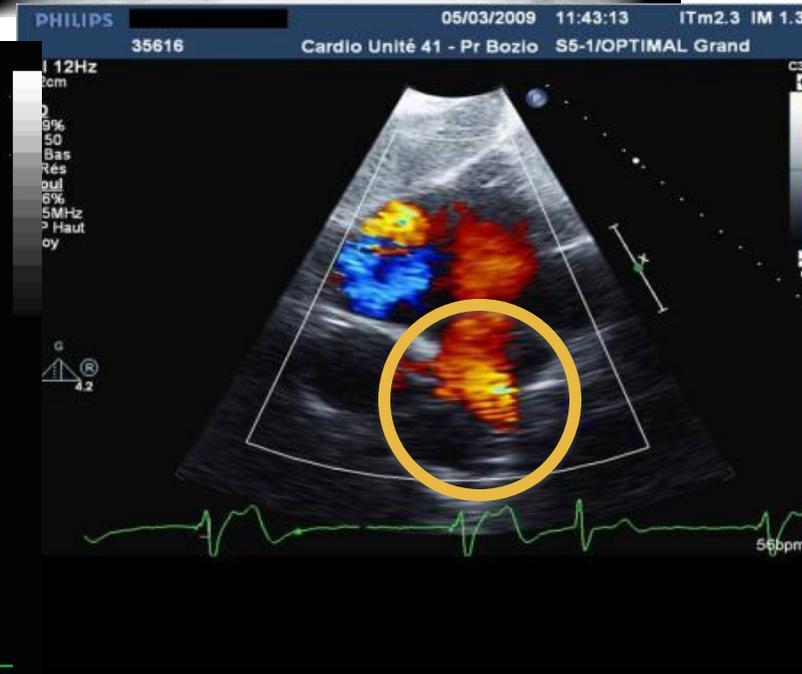
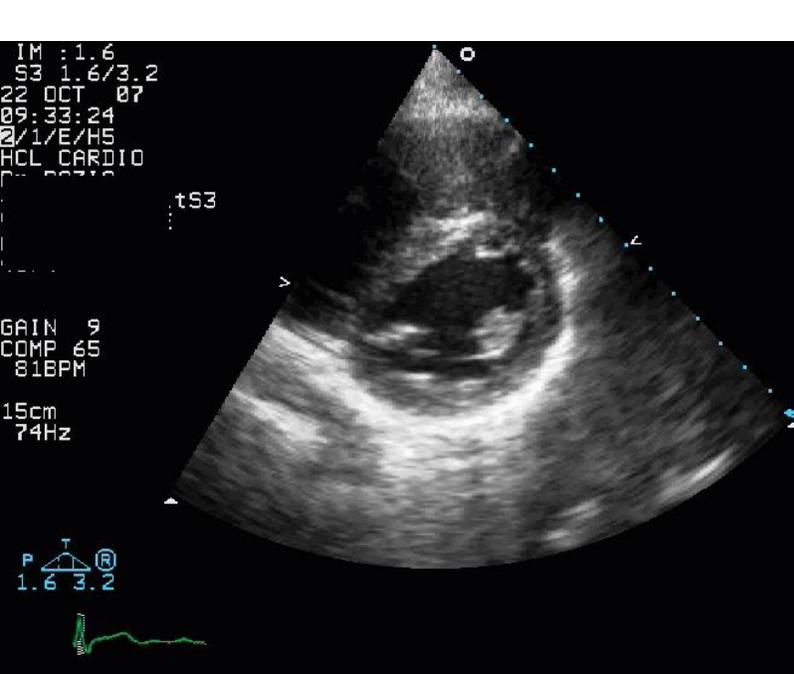
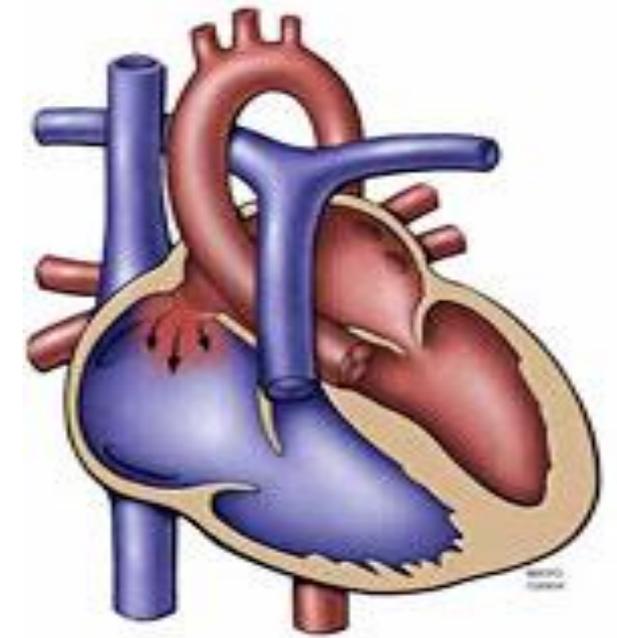
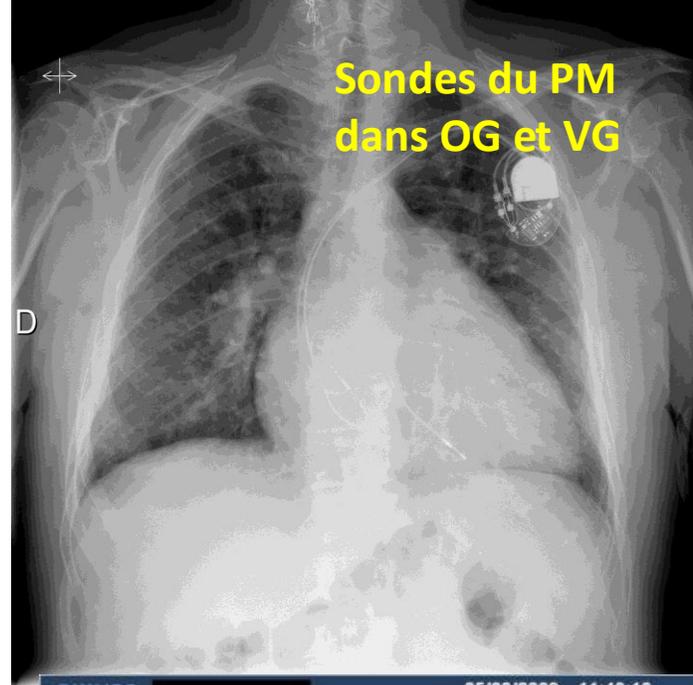
Cas clinique

- Mme X, 58 ans
- 1 fille en BS
- Symptomatologie:
 - IC globale
 - FA rapide
 - Hospitalisation



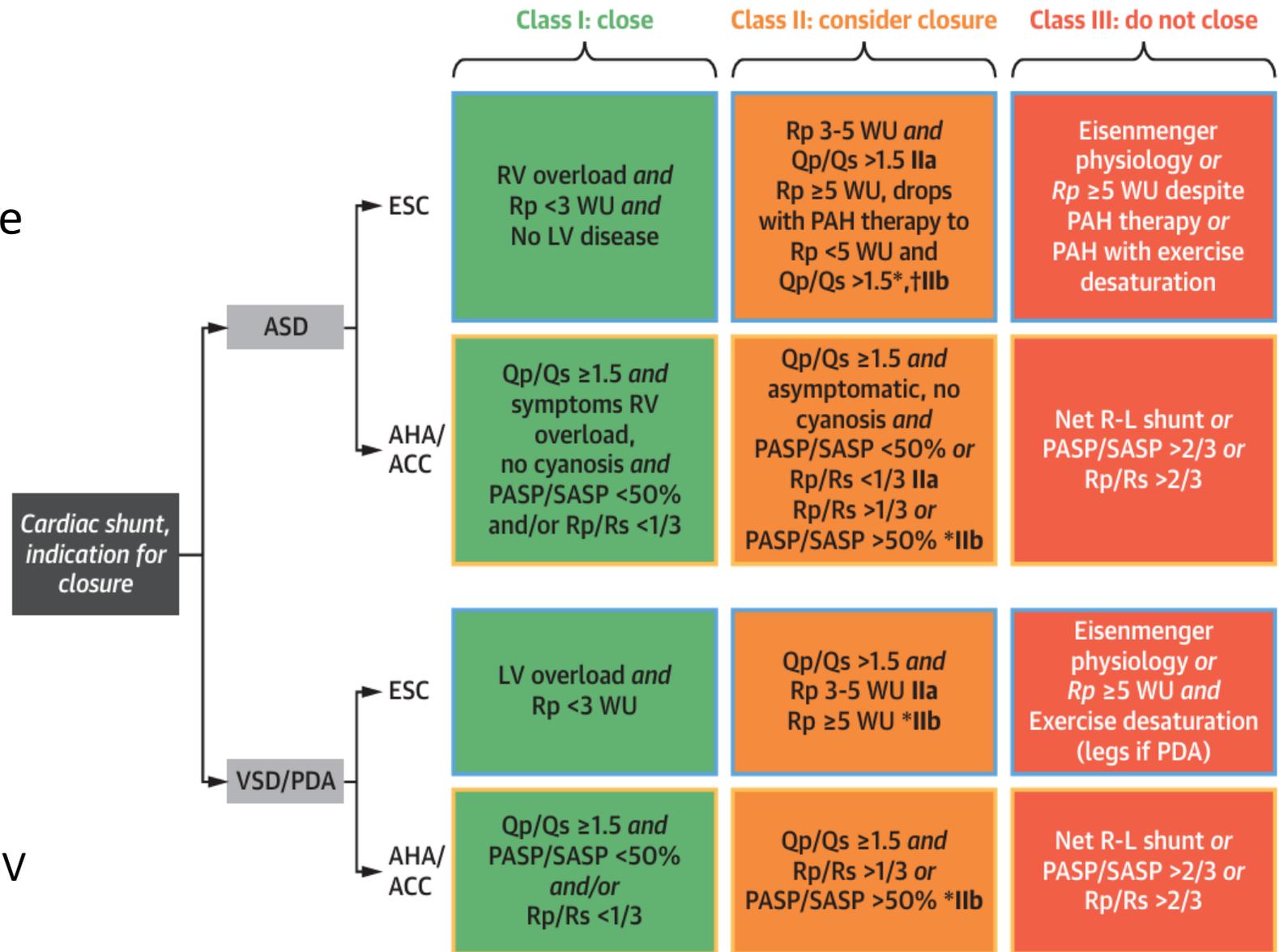
Cas clinique

- Mr Y, 75 ans
- ATCD: Bitronculaire
Infarctus inférieur
PM double chambre
- Douleurs thoraciques



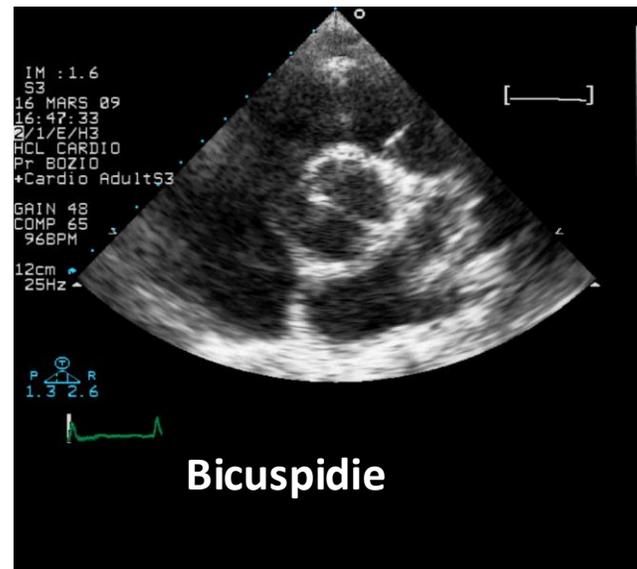
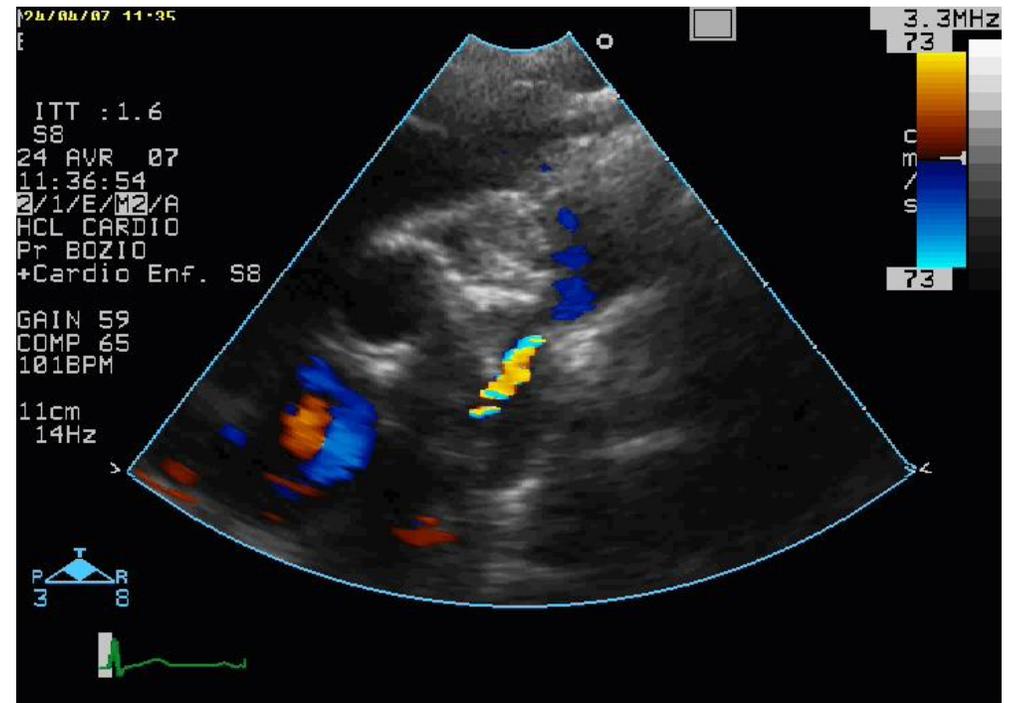
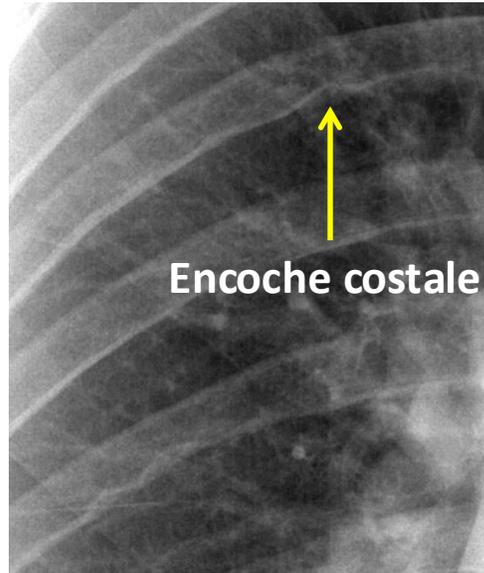
CIA de l'adulte

- Découverte fortuite : souffle
- Ou symptômes :
 - Arythmie
 - IC
 - thromboembolie
- Bilan d'HTAP :
 - rechercher un shunt
- Shunt GD, surcharge VD
- Localisation :
 - ne pas méconnaître la CIA/SV



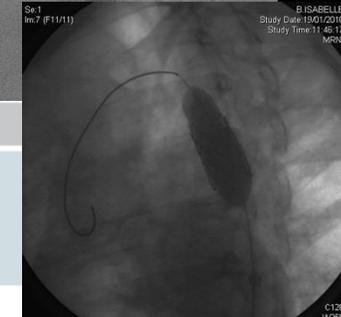
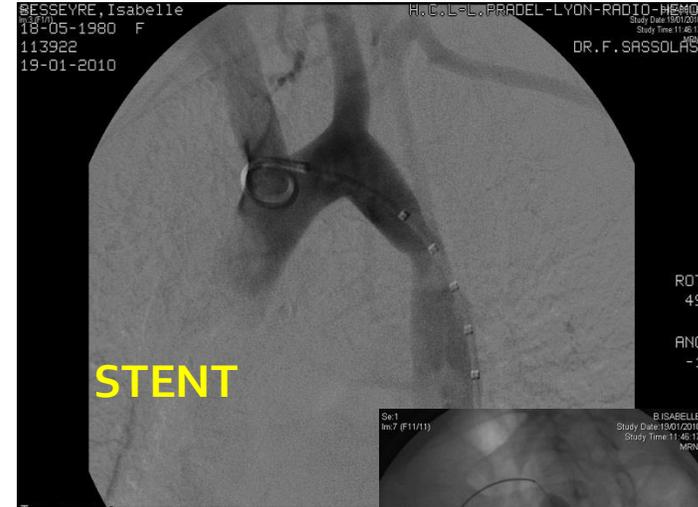
Cas clinique

- Mr B. 40 ans
- 180 cm, 80 kg
- Vie normale
- HTA traitée depuis 20 ans
- Clinique :
 - TA MSD 180/100
 - TA MID 90/40
 - Pouls fémoraux très faibles
 - Souffle dorsal continu
 - Pouls intercostaux et mammaires



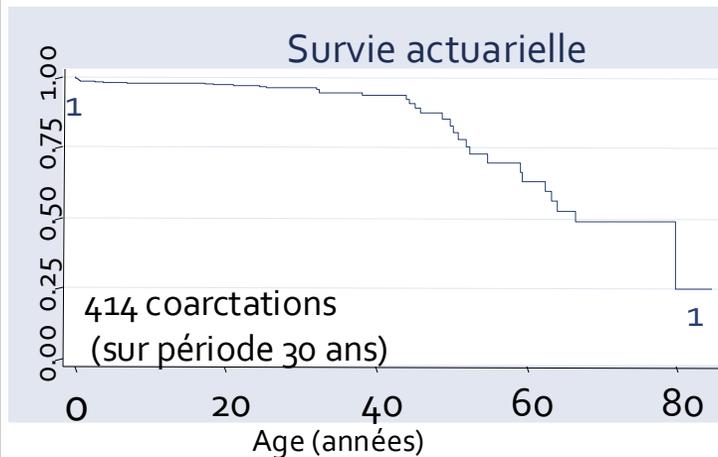
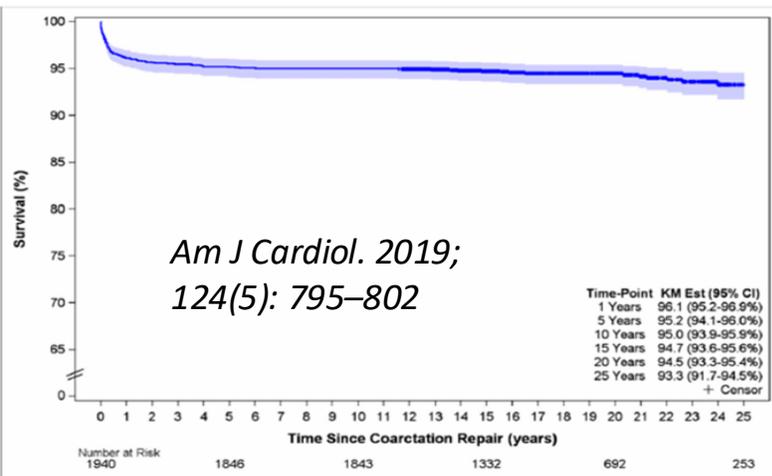
La coarctation aortique

- HTA sujet jeune
- Bicuspidie aortique : 50%
- Palper les pouls fémoraux
- Ausculter le dos
- Recherche de pouls intercostaux
- **Scanner ou IRM +++**



Coarctation and re-coarctation of the aorta

Repair of coarctation or re-coarctation (surgically or catheter based) is indicated in hypertensive patients with an increased non-invasive gradient between upper and lower limbs confirmed with invasive measurement (peak-to-peak ≥ 20 mmHg) with preference for catheter treatment (stenting) when technically feasible.



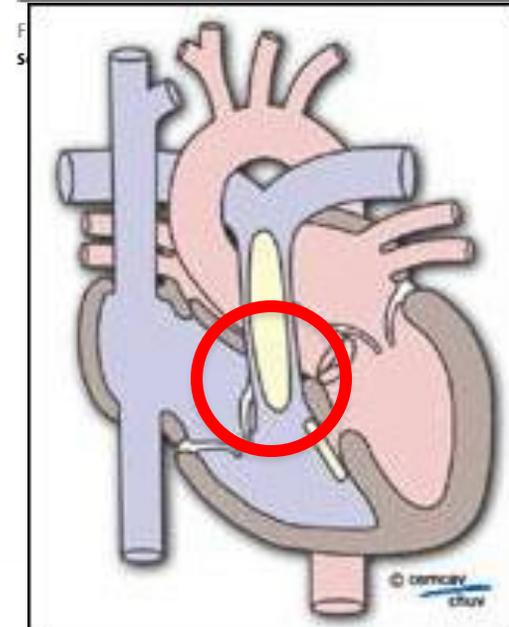
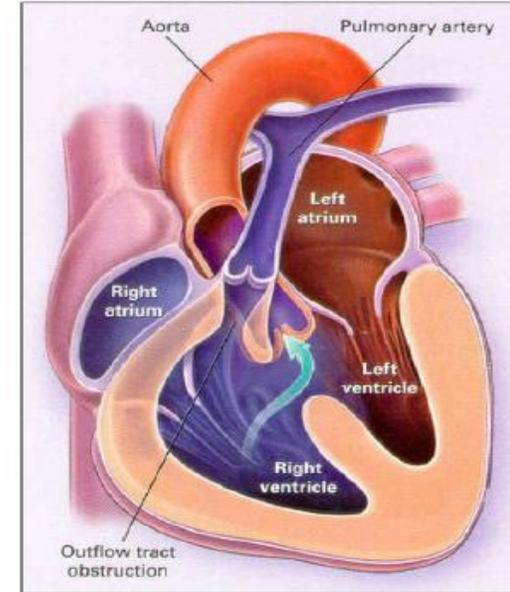
VD sous pulmonaire

Tétralogie de Fallot

- Cardiopathie cyanogène fréquente
- Hypoplasie de la voie pulmonaire (anneau, AP)
- Sténose infundibulum
- Correction complète à 6-12 mois
 - Patch CIV
 - Elargissement de la voie pulmonaire : anneau, valve, infundibulum

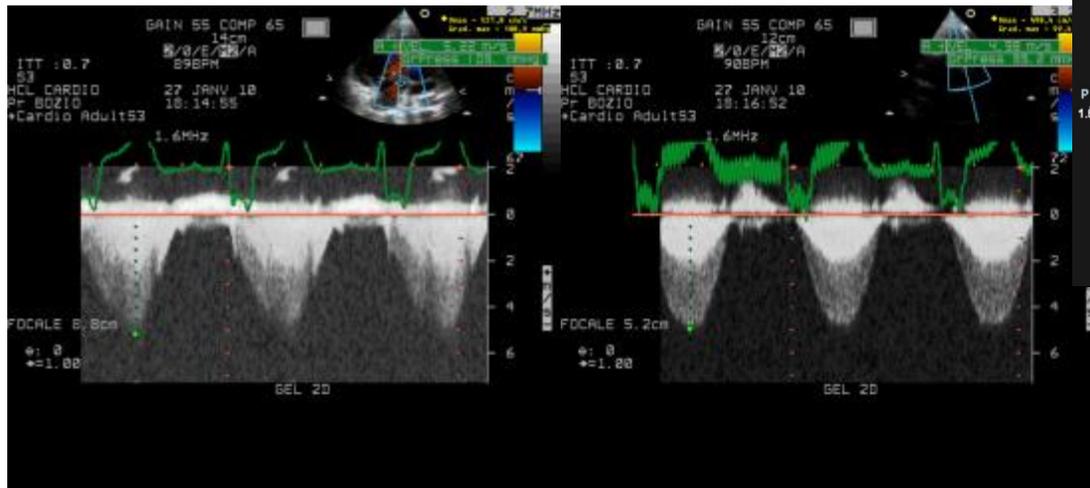
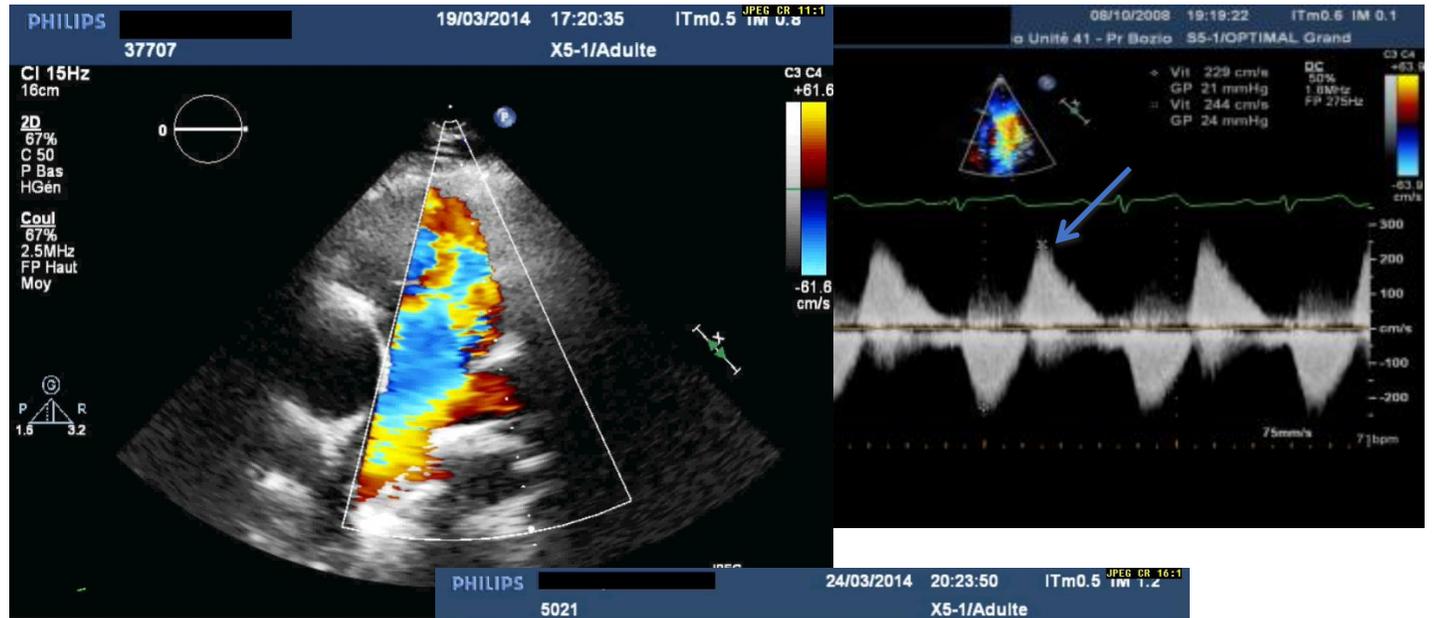


**FUITE PULMONAIRE
DILATATION VD**



Tétralogie de Fallot adulte

- IP massive ++
- Dilatation VD ++
- Dysfonction VD ++
- Arythmies, TV ++
- Risque de MS (effort) ++
- Parfois sténose AP et HVD





PERCUTANEE Vs CHIRURGICALE

Timing ?

Evaluation fonction VD

- IRM ++ (FEVD, VTDVD/m²)
- DTI, 3D

PVRep is recommended in symptomatic patients with severe PR^c and/or at least moderate RVOTO.^d

In patients with no native outflow tract,^e catheter intervention (TPVI) should be preferred if anatomically feasible.

PVRep should be considered in asymptomatic patients with severe PR and/or RVOTO when one of the following criteria is present.

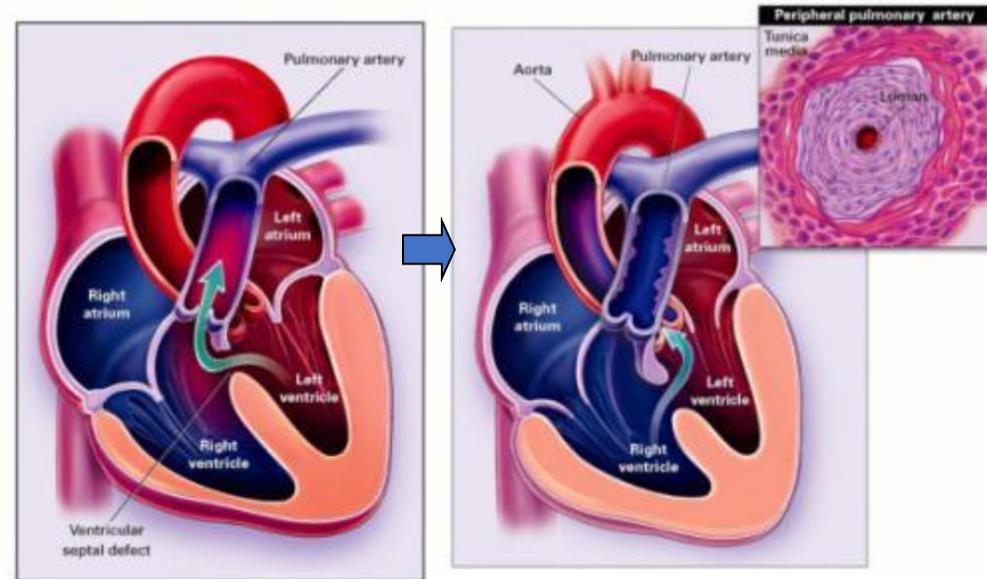
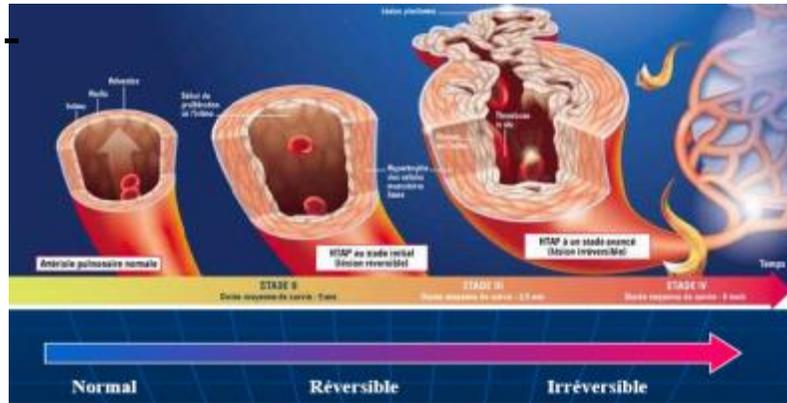
- Decrease in objective exercise capacity.
- Progressive RV dilation to RVESVi ≥ 80 mL/m², and/or RVEDVi ≥ 160 mL/m² ^f, and/or progression of TR to at least moderate.
- Progressive RV systolic dysfunction.
- RVOTO with RVSP >80 mmHg.

I	C
I	C
IIa	C

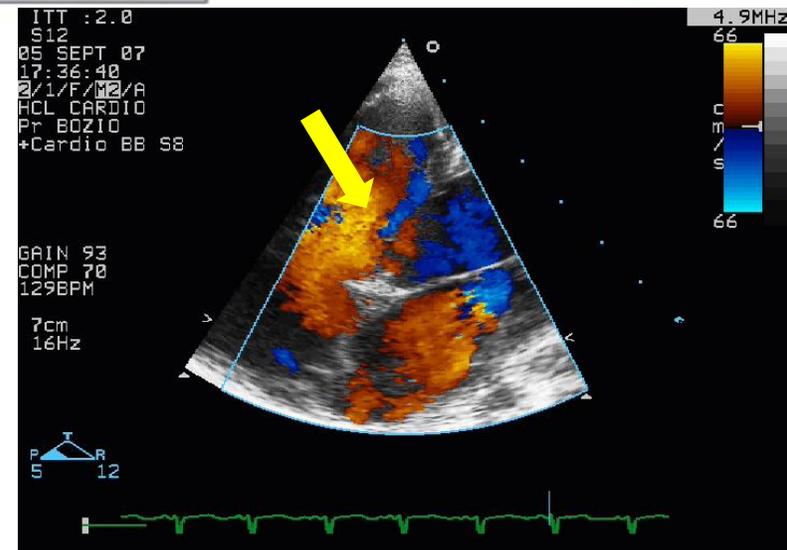
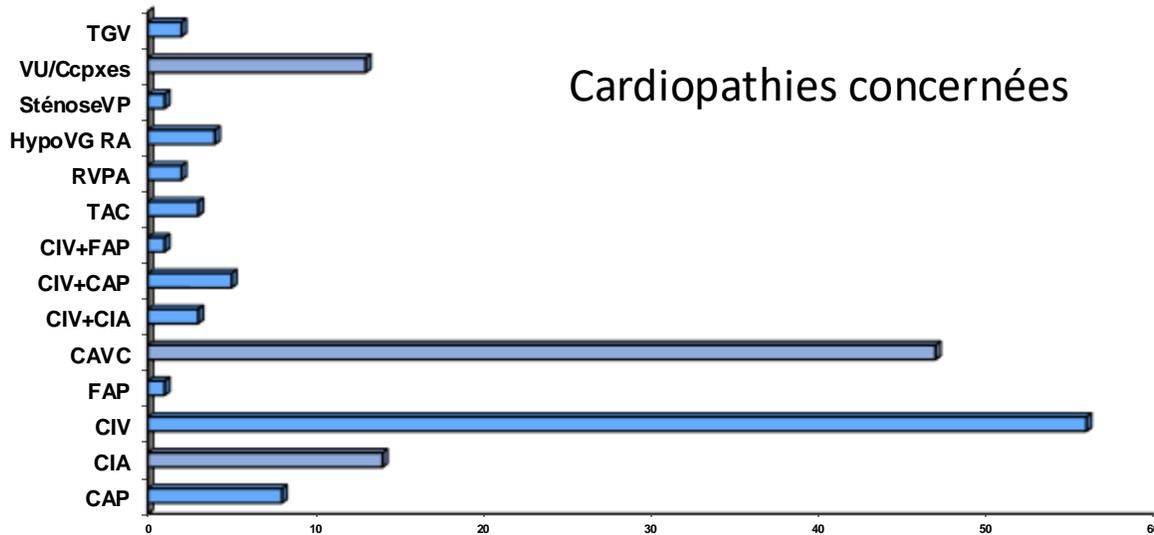
Shunts → Eisenmenger

Hyperdébit: ↗ Flux + Pressions

NEJM 2000; 342: 334-342



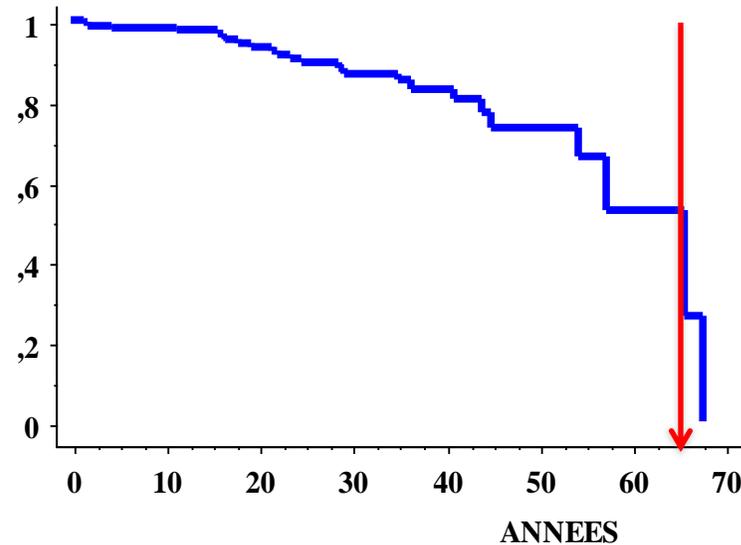
Résistances ↗ (irréversible) Évolutivité variable ++



Symptomatologie Complications

Circulation. 2007;115:1039-1050

- **HYPOXIE CHRONIQUE**
 - Cyanose, Hippocratismes digitaux, Polyglobulie
- **HYPERVISCOSITE SANGUINE**
- **DYSPNEE** : Intolérance à l'effort
- **SYNCOPEs**
- **HEMOSTASE** : Thrombopénie
- **HEMORRAGIES** : Hémoptysies, cérébrales
- **THROMBOSES** : EP, AVC
- **INFECTIONS**: abcès cérébraux, EI
- **ARYTHMIES**
- **INSUFFISANCE CARDIAQUE** : IVD
- **AUTRES**: Insuffisance Rénale, Hyperuricémie, goutte, Dysfonction hépatique



Suivi / 6 mois

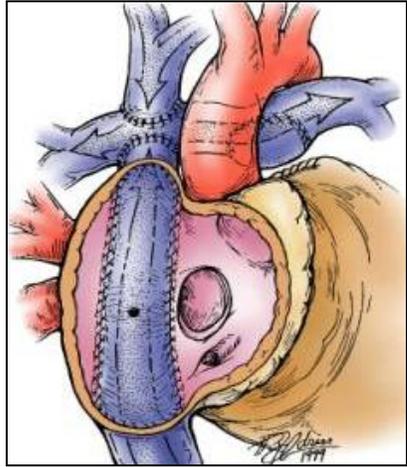
- **Classe fonctionnelle**
 - Test de marche 6 minutes
 - VO² max
- **Biologique**
 - Hématocrite
 - Saturation cutanée (repos, effort)
 - BNP ??
- **EchoDoppler cardiaque**
 - Fonction VD
 - Mesure PAP
 - Débit cardiaque
 - Valves AV
 - Shunt
- **Hémodynamique**
 - Pressions, débits, résistances vasculaires
 - Risque ++

In low- and intermediate-risk patients with repaired simple lesions and pre-capillary PH, initial oral combination therapy or sequential combination therapy is recommended and high-risk patients should be treated with initial combination therapy including parenteral prostanoids.

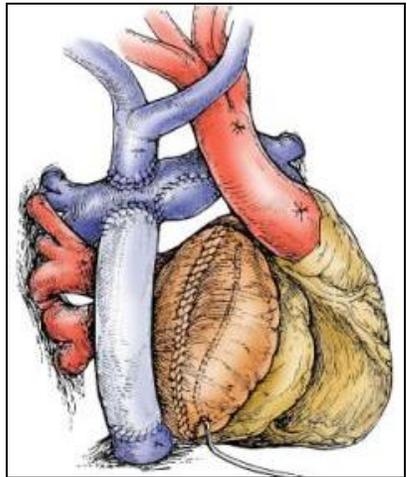
I

A

Cœur univentriculaire : FONTAN

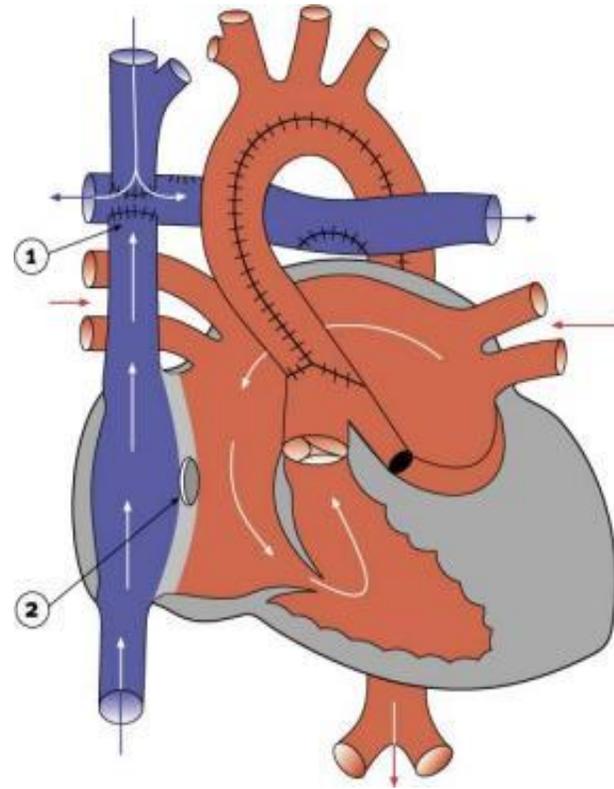


Anastomose
VCS- AP

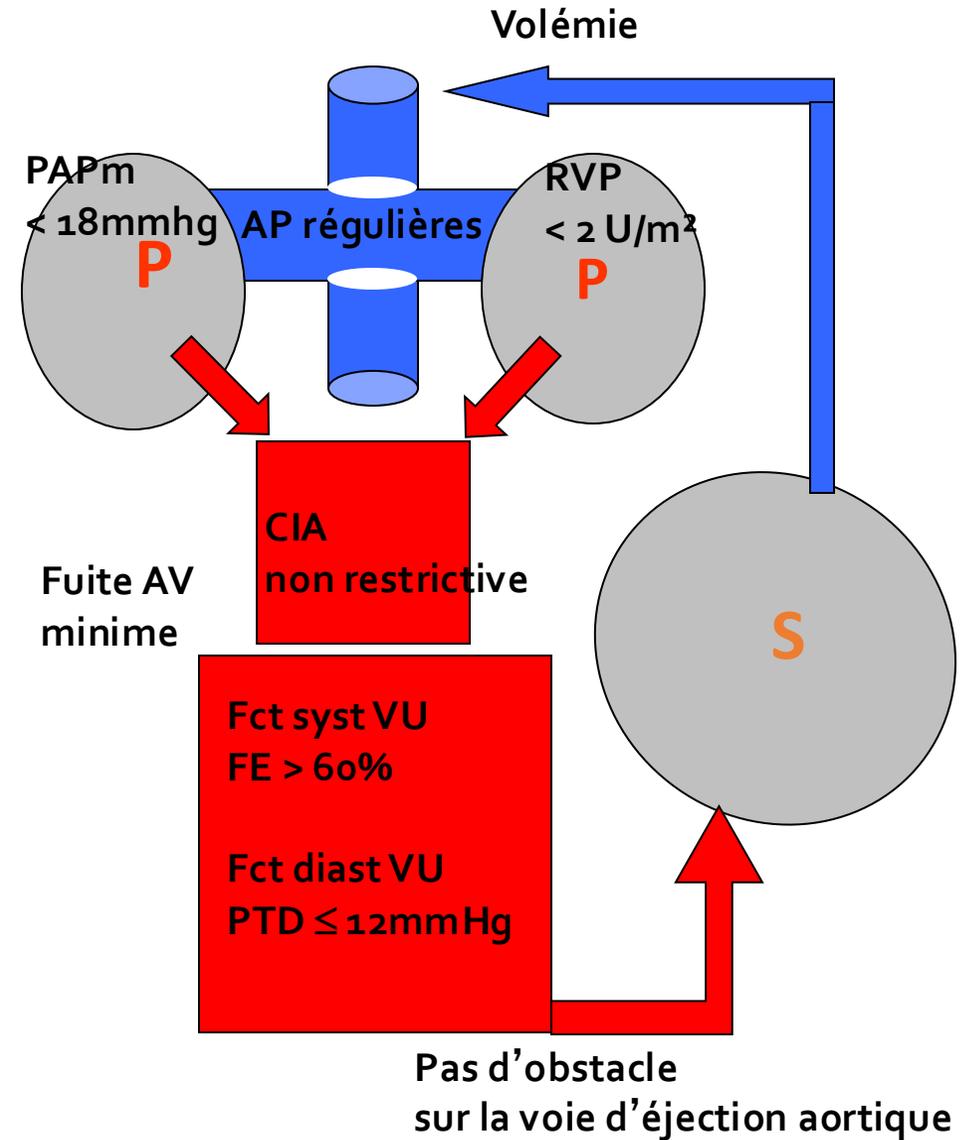


±
Fenestration

Anastomose
VCI- AP

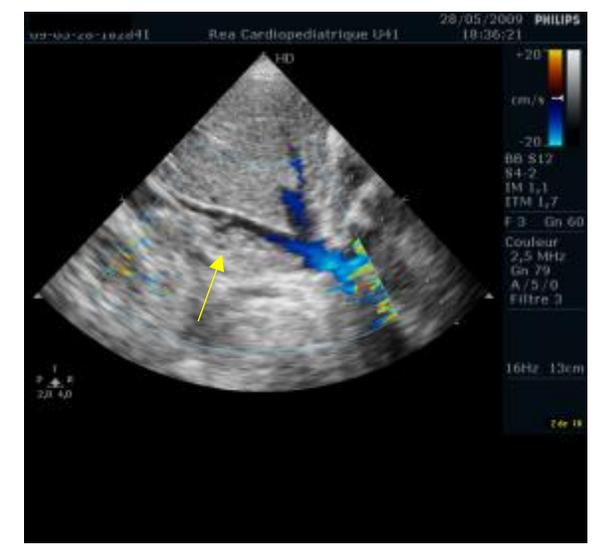
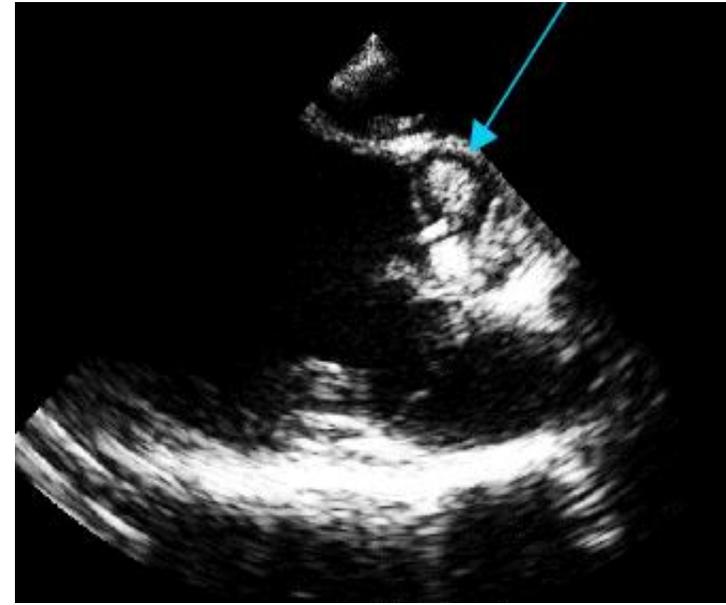


ENTRE 2 ET 3 ANS



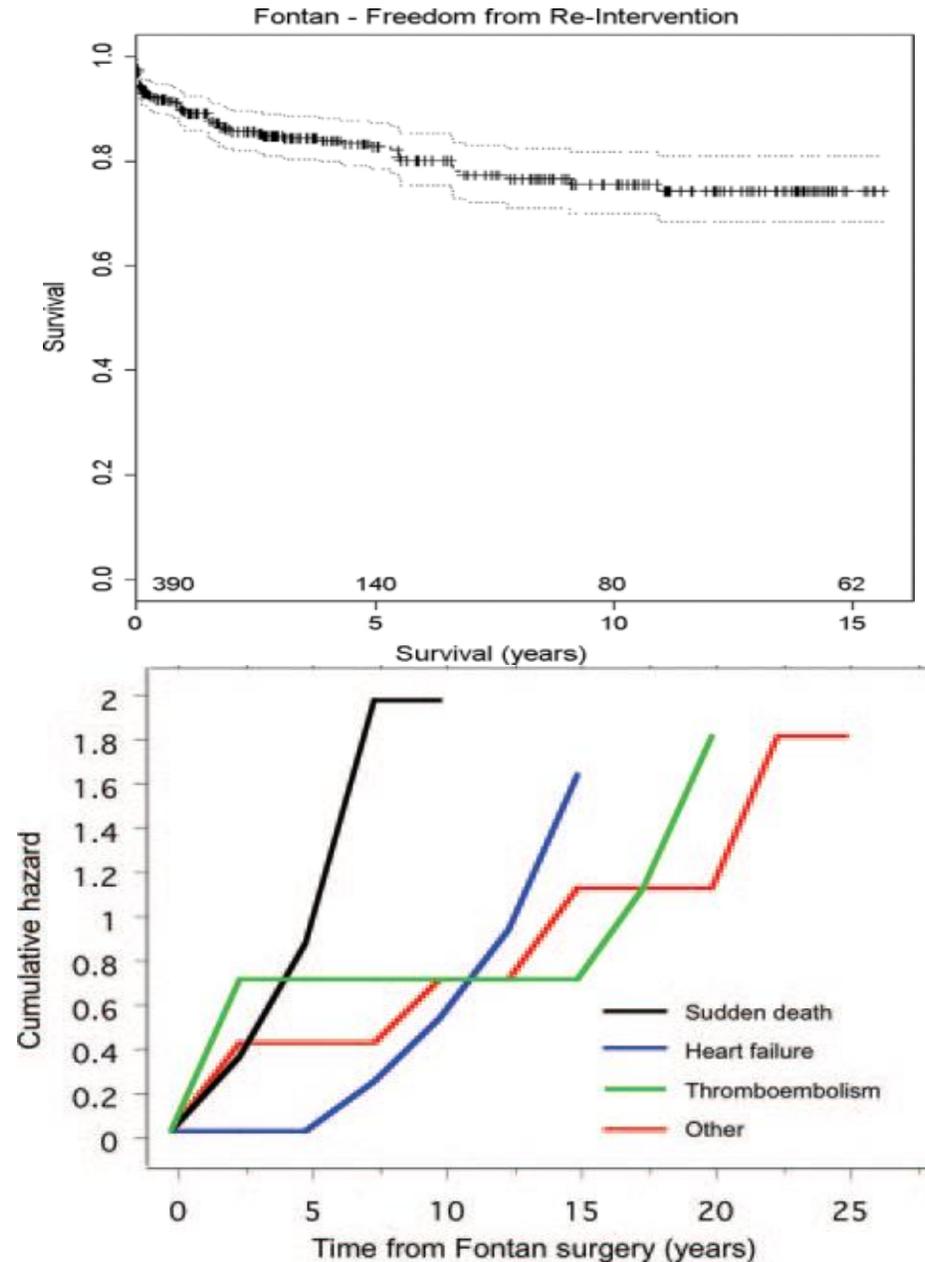
Complications

- **Arythmies**: SV type Flutter ou FA
50% des cas à 20 ans
- **Thrombo-embolies**
- Cyanose: shunt résiduel, fistules
- **Entéropathie exsudative**: gravité ++
- **Dysfonction myocardique**
- Fuite valve auriculoventriculaire
- Obstacle voie aortique
- **Dysfonction hépatique**
- Epanchements récidivants
- Sténoses du circuit



Suivi / 6 mois

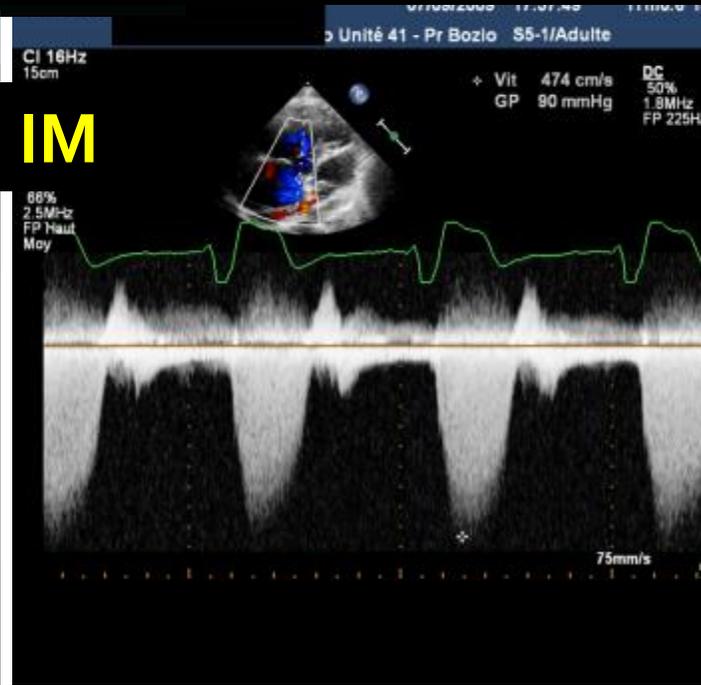
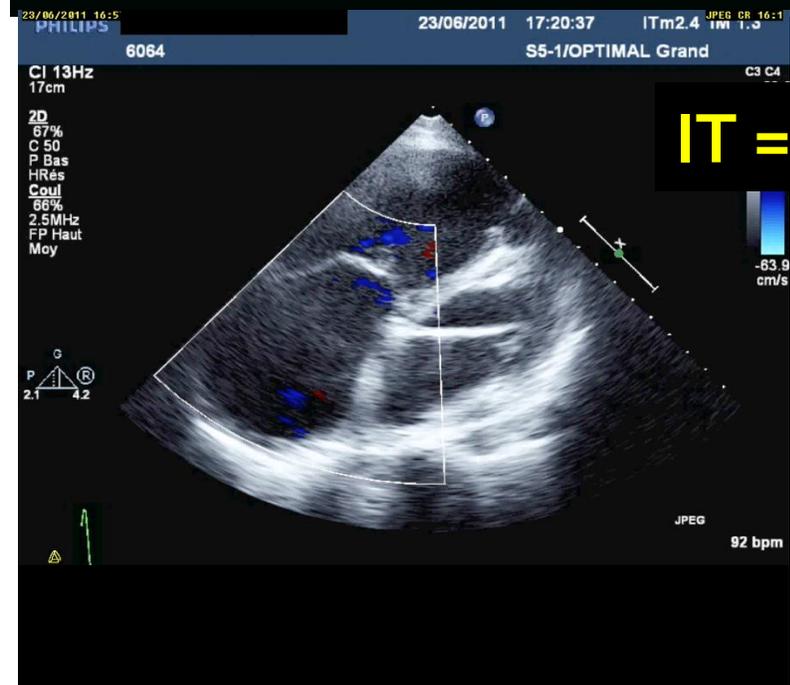
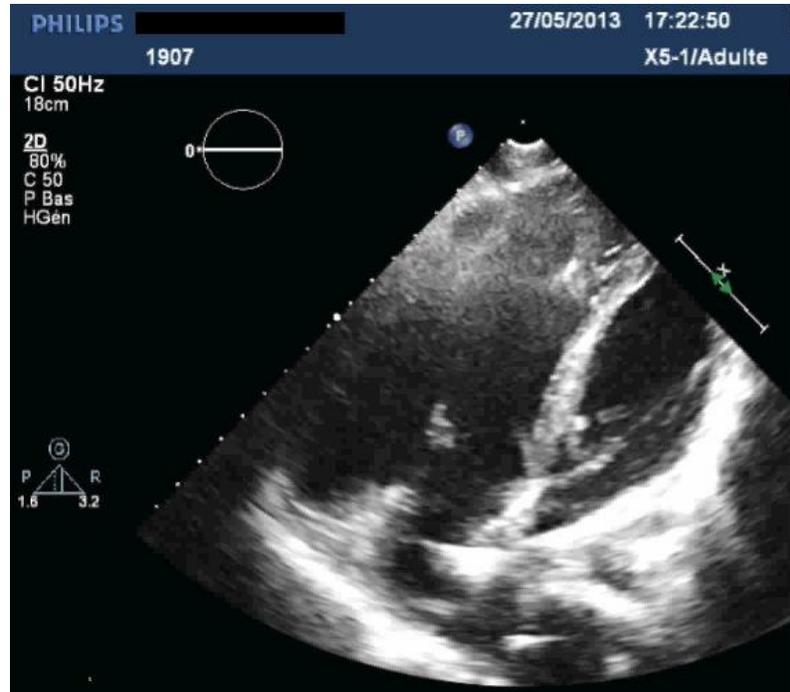
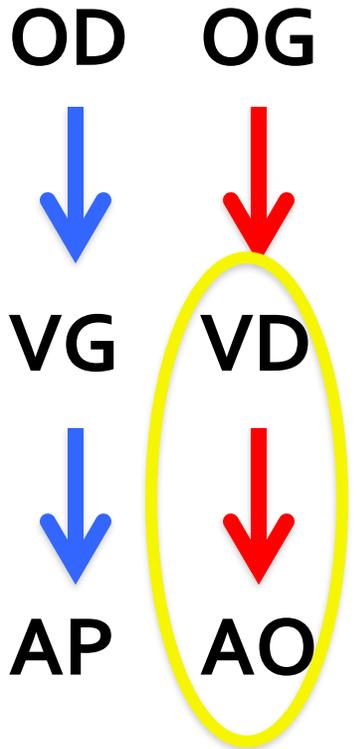
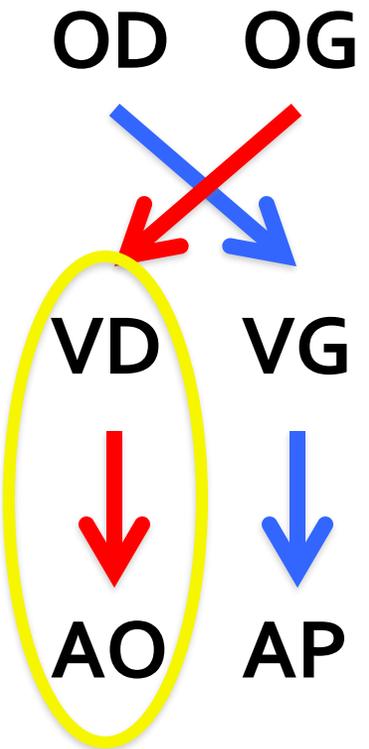
- **Echocardiographie :**
 - Fonction ventriculaire
 - Fuite sur la valve AV
 - Sténoses sur le montage
 - Thrombus intra-cavitaire
- **ECG :** étude du rythme
- **Holter ECG**
- **Test d'effort** (VO2 max)
- **Biologie**
- **IRM**
 - Anatomie précise du montage
 - Taille de l'OD
- **Cathétérisme**
 - Hémodynamique
 - Angiographie
- **Prévention de l'EI**



Le VD systémique

Transposition des gros vaisseaux
 Mustard / Senning
 (atrial switch) < 1987

Double discordance
 Cardiopathie native



Le VD sous aortique

Post Mustard / Senning

- Arythmies auriculaires
- Défaillance VD
- IT = IM
- Sténose chenaux caves

Double discordance

- BAV complet
- Défaillance VD
- IT = IM



Challenges

- Evaluation de la fonction VD
- Quantification de l'IT
- Evaluation du pronostic à long terme
- Efficacité des traitements de l'IC : IEC, BB ?

Congenitally corrected transposition of the great arteries		
In <i>symptomatic</i> patients with severe TR and preserved or mildly impaired systemic RV systolic function (EF >40%), TV replacement is indicated.	I	C
Transposition of the great arteries after atrial switch operation		
In <i>symptomatic</i> patients with pulmonary venous atrium obstruction, surgical repair (catheter intervention rarely possible) is recommended.	I	C
In <i>symptomatic</i> patients with baffle stenosis not amenable to catheter intervention, surgical repair is recommended.	I	C
In <i>symptomatic</i> patients with baffle leaks not amenable to catheter-based closure, surgical repair is recommended.	I	C
PA banding in adults, as LV training with subsequent arterial switch procedure, is not recommended.	III	C
In <i>symptomatic</i> patients with baffle stenosis, stenting is recommended when technically feasible.	I	C
In <i>symptomatic</i> patients with baffle leaks and cyanosis at rest or during exercise, or with strong suspicion of paradoxical emboli, stenting (covered) or device closure is recommended when technically feasible.	I	C
In patients with baffle leaks and symptoms due to L–R shunt, stenting (covered) or device closure is recommended when technically feasible.	I	C

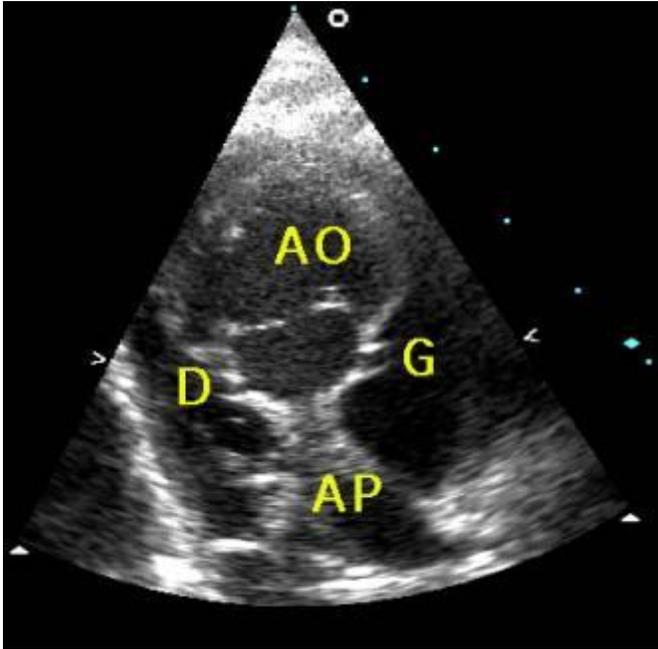
Congénital Adulte = Patient coronarien

Post opératoire

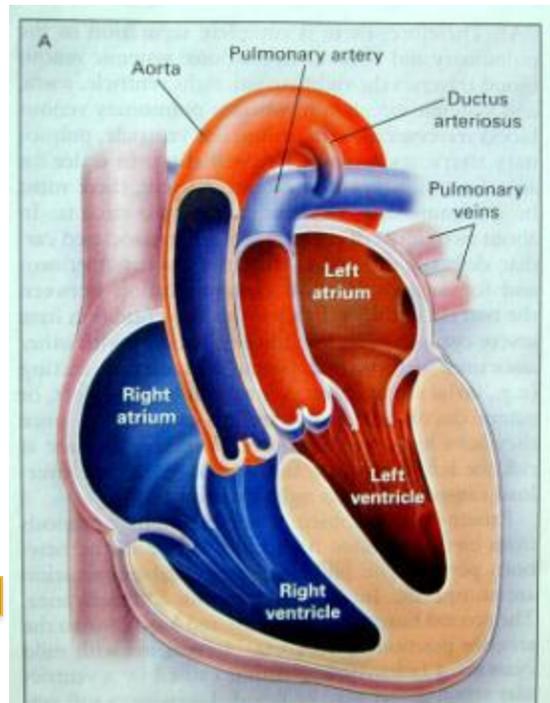
- **Switch artériel** pour TGV
- Intervention de Ross
- Réimplantation coronaire
- Norwood
- Transplantation cardiaque

Anomalie coronaire native

- Anomalie de trajet associé aux cardiopathies
- **Anomalies de trajet** isolées (sinus aortique opposé)
- Anomalies de connexion (coronaire née de l'AP)

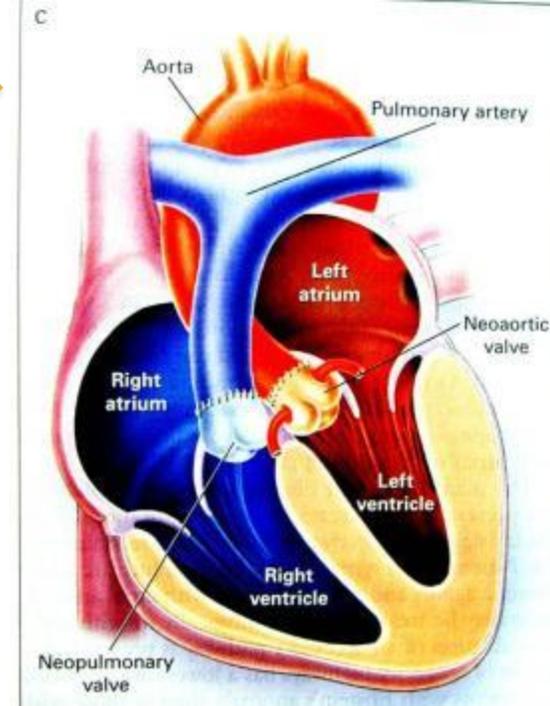
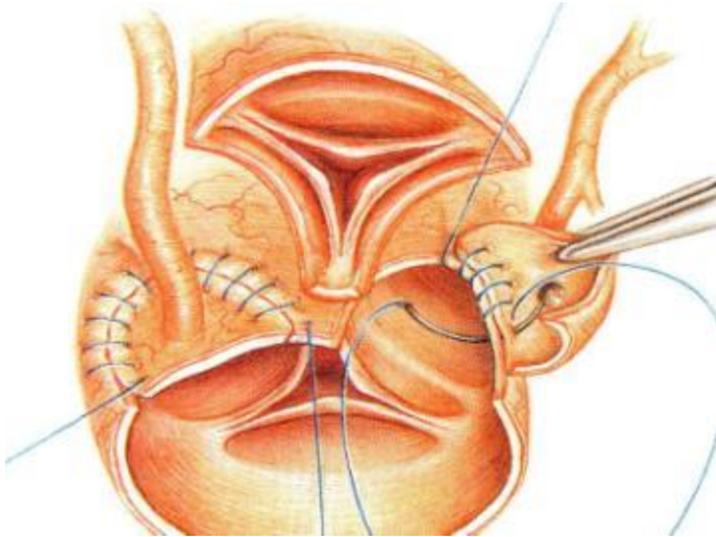


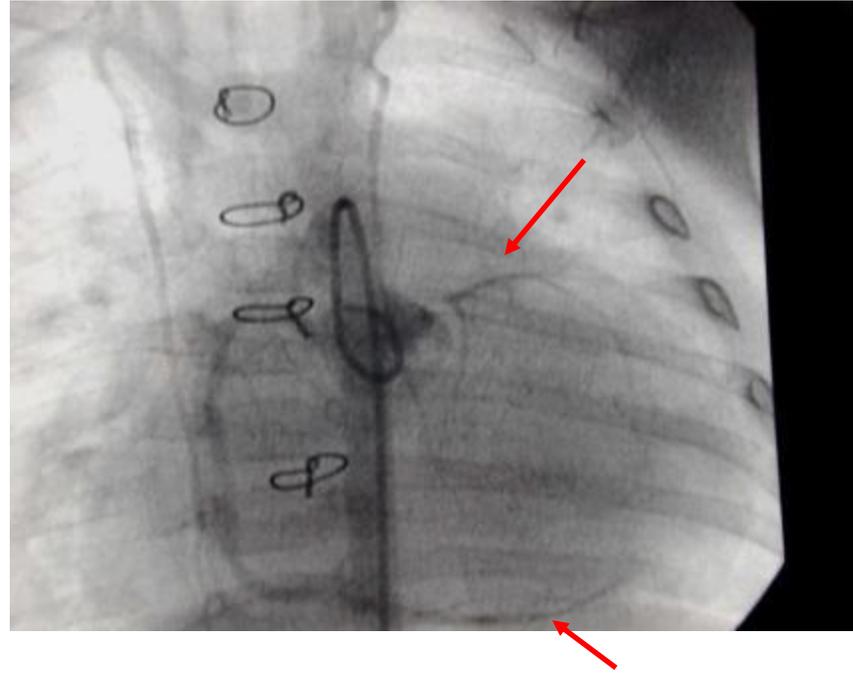
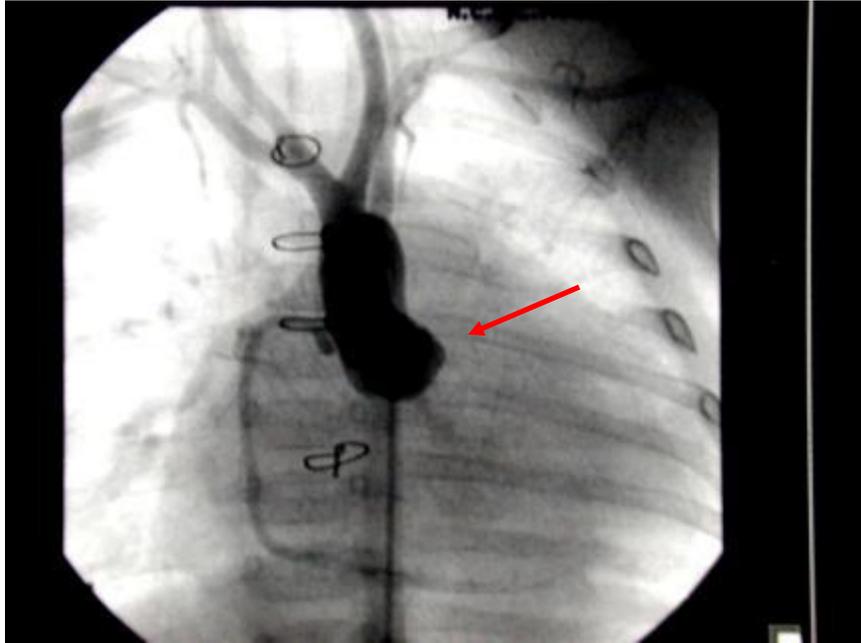
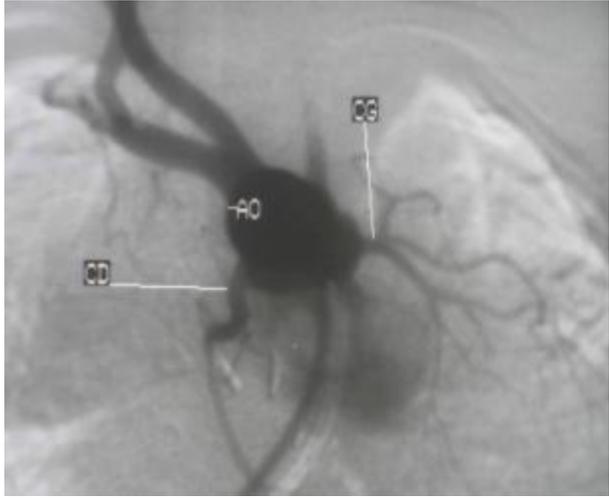
TGV



SWITCH

ARTERIEL

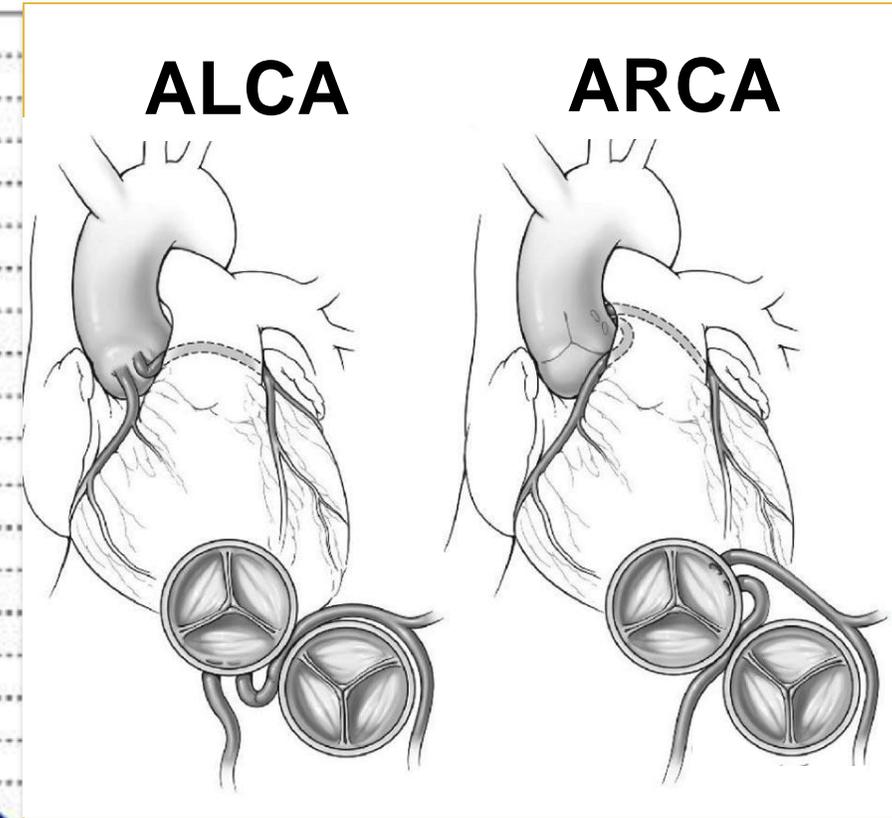
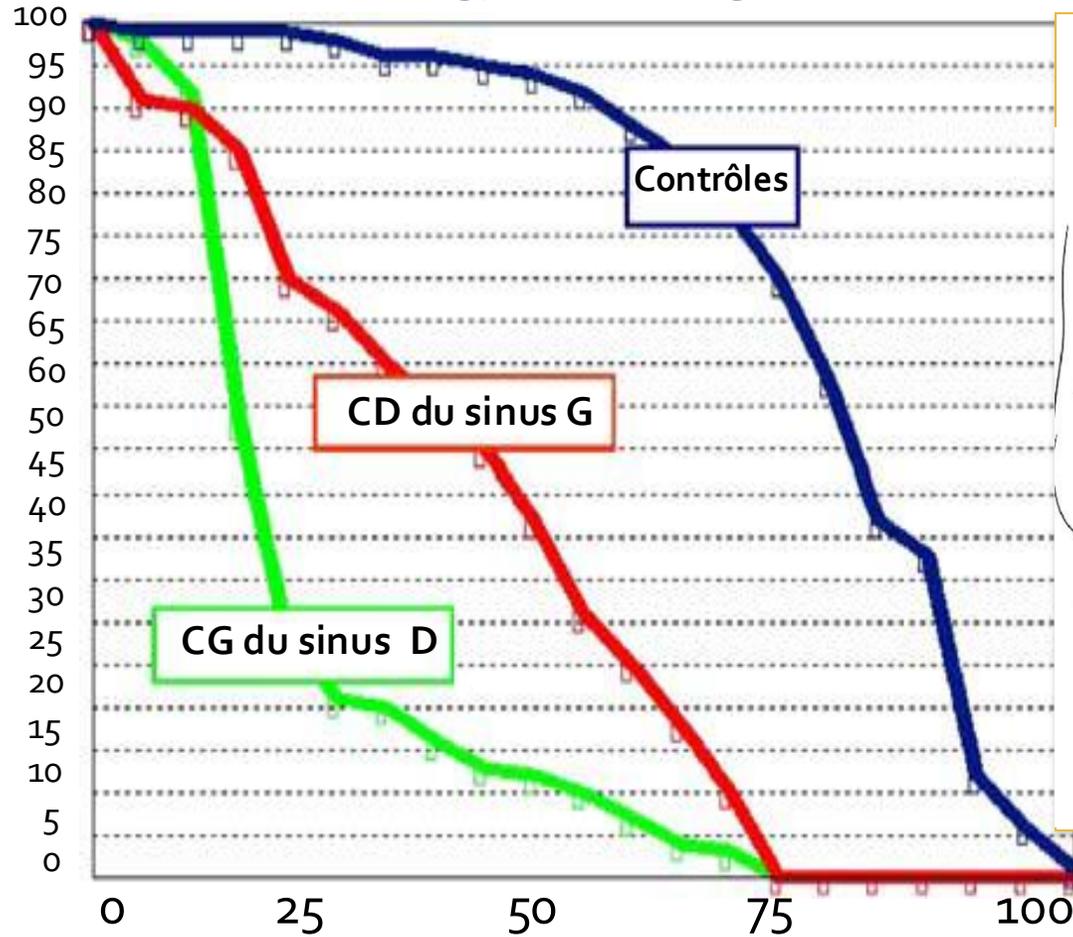


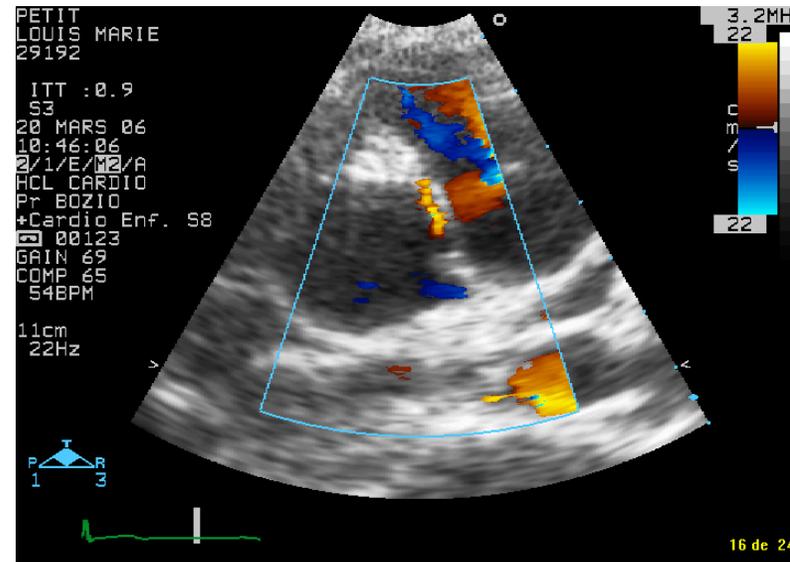
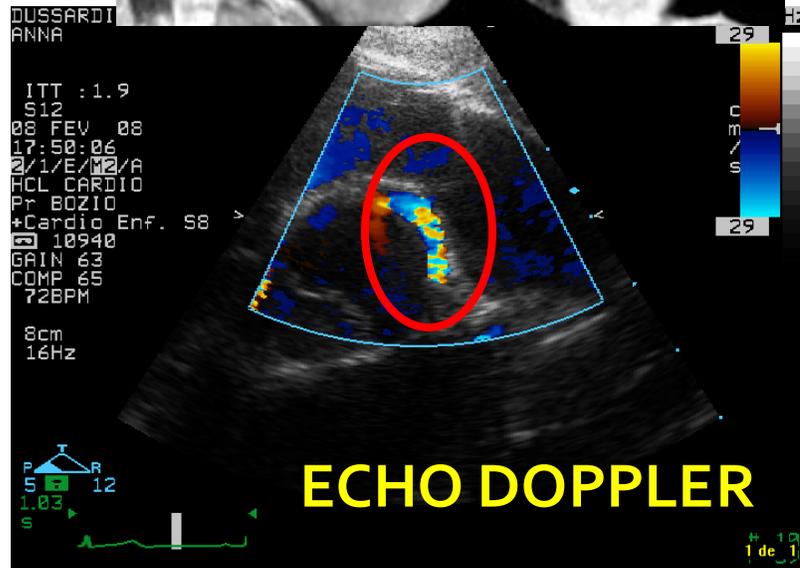
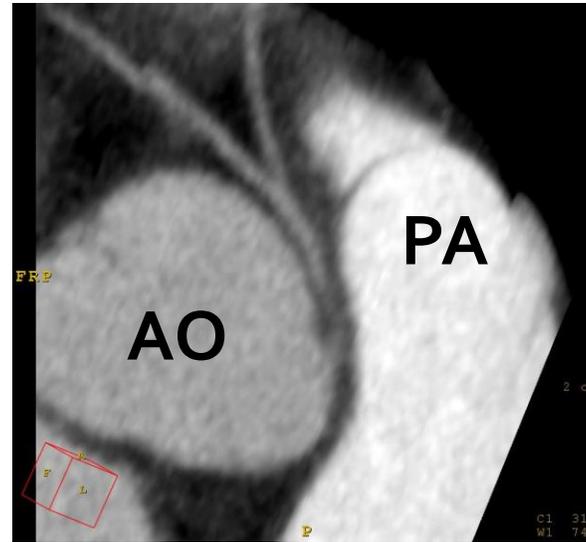
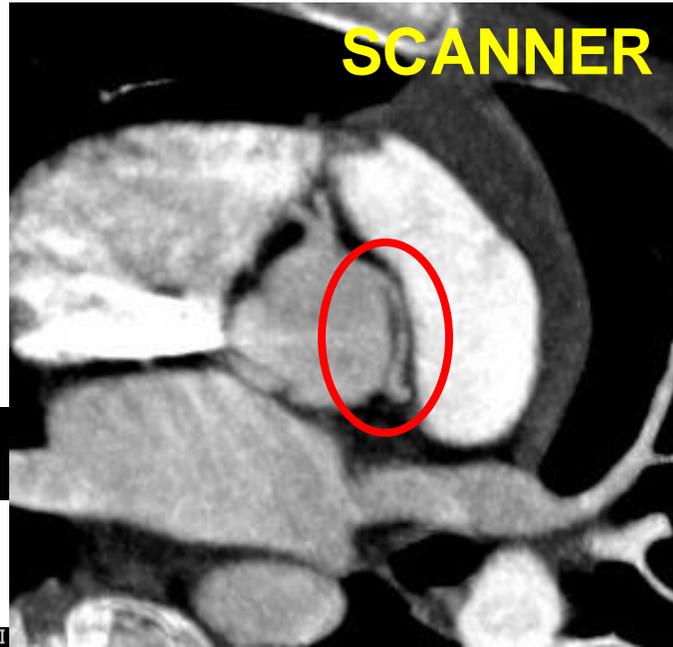


Anomalies de trajet coronaires

Risque : **Mort subite effort** / Symptômes : douleurs, malaises

Karl TR et al. Cardiology in the Young 2010;20:44





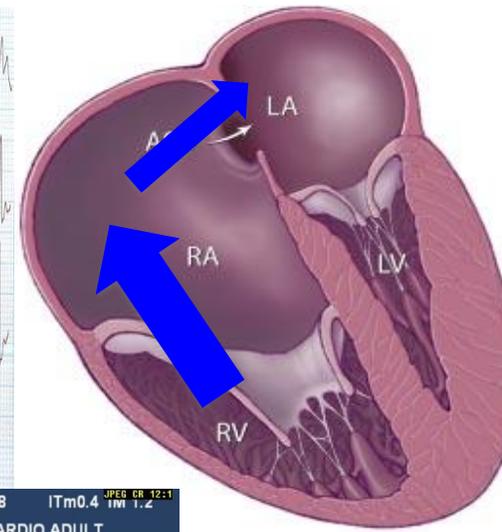
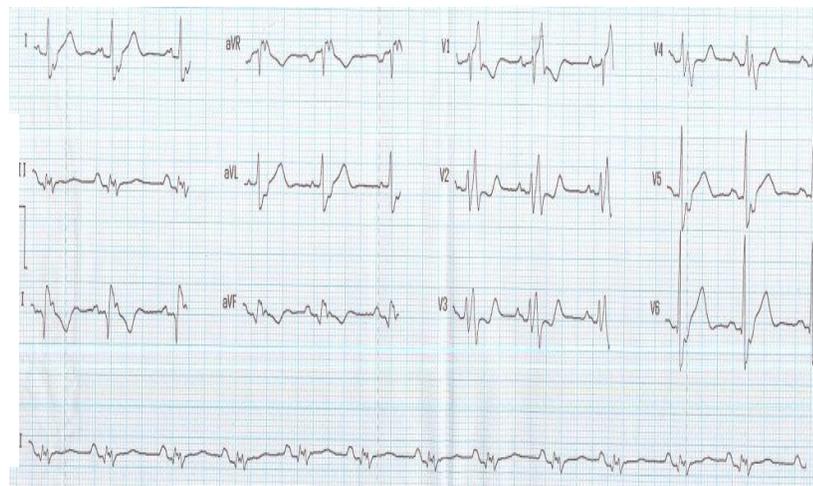
➔ Réimplantation chirurgicale

Ebstein

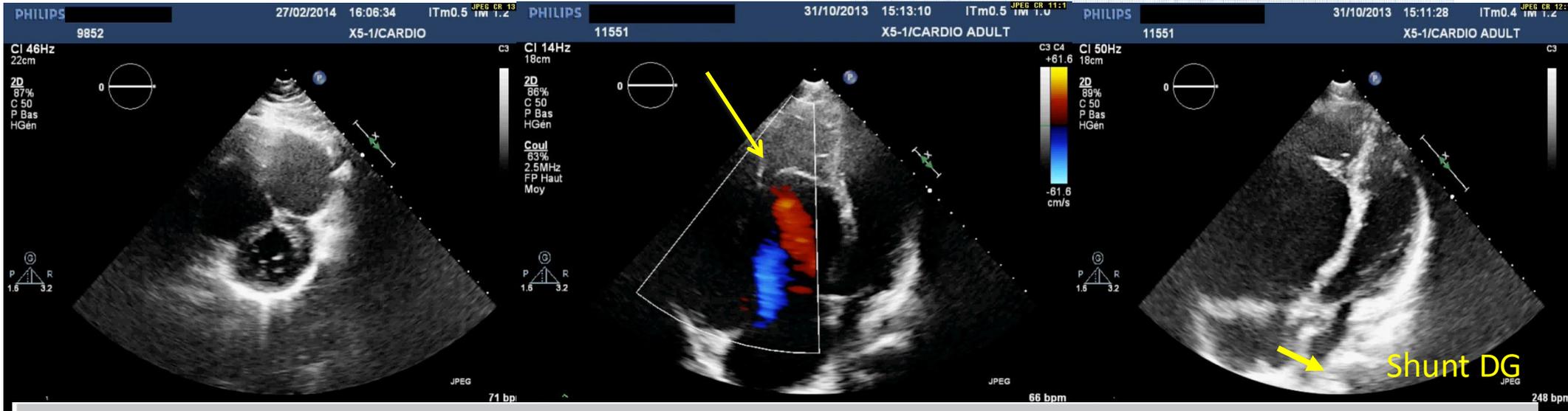
- BBDC, WPW= 26%
- Hypoxie
- ArythmieAVC
- IC, IVD



Amplatz CIA
Ablation
Plastie Tricuspide



Ebstein's Anomaly



Ebstein anomaly

Surgical repair is recommended in patients with severe TR and symptoms or objective deterioration of exercise capacity.

I **C**

It is recommended that surgical repair is performed by a congenital surgeon with specific experience in Ebstein surgery.

I **C**

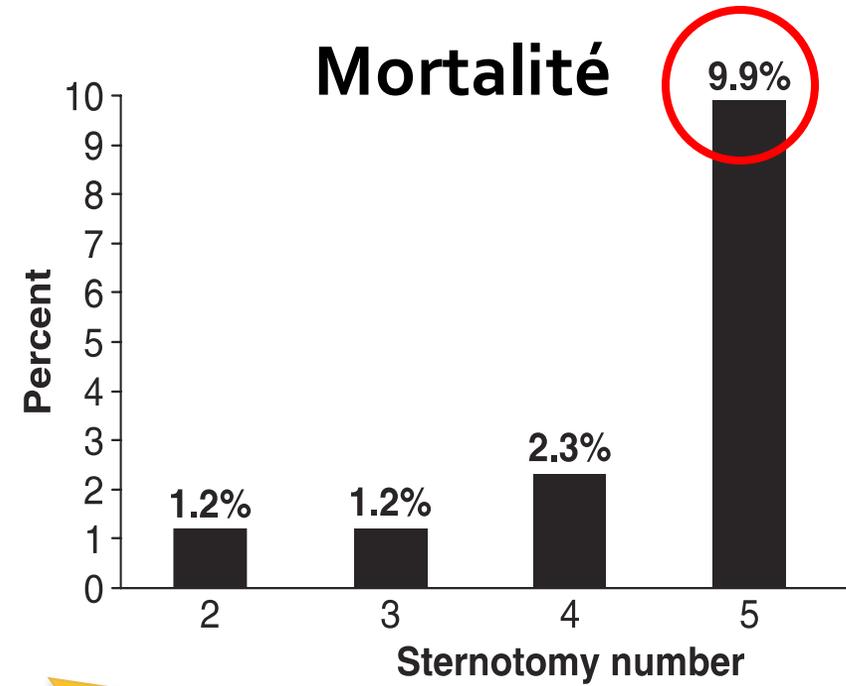
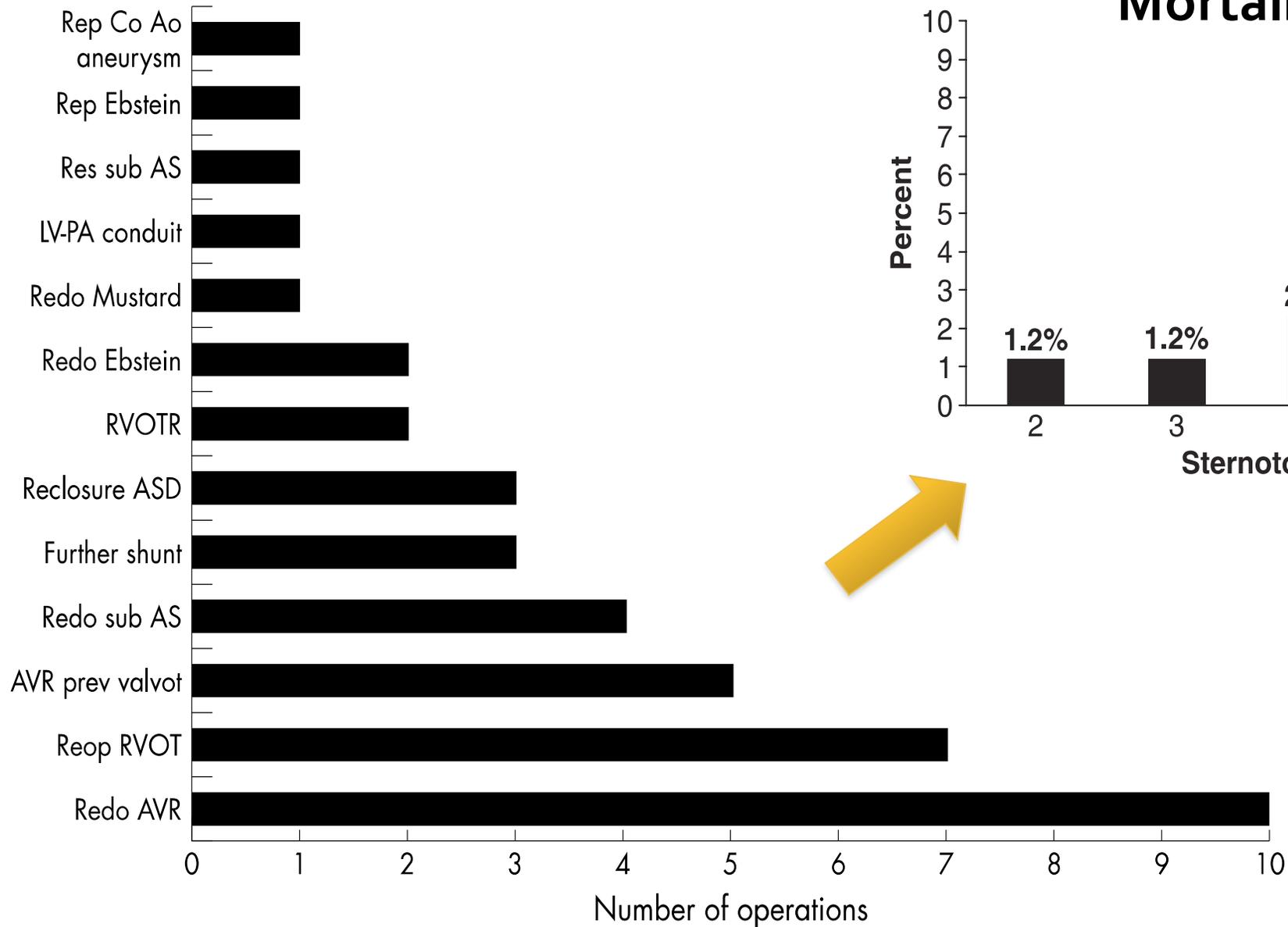
If there is an indication for TV surgery, ASD/PFO closure is recommended at the time of valve repair if it is expected to be haemodynamically tolerated.

I **C**

In patients with symptomatic arrhythmias or pre-excitation on the ECG, electrophysiologic testing followed by ablation therapy, if feasible, or surgical treatment of the arrhythmias in the case of planned heart surgery is recommended.

I **C**

Chirurgie Redux



Thérapeutiques interventionnelles

• Cathétérisme



- Alternative à la chirurgie
- Complément de la chirurgie
- Evite une CEC

• Connaître et comprendre

- La cardiopathie
- Les antécédents
- Les montages chirurgicaux
- La situation vasculaire

- 
- Fermeture de shunts: CIA, CIV, CAP
 - Dilatation valvulaire: RP, RA
 - Prothèse valvulaire: pulmonaire
 - Stent/ angioplastie: isthme Ao, AP
 - Embolisation: fistule, collatérales
 - Septostomie atriale

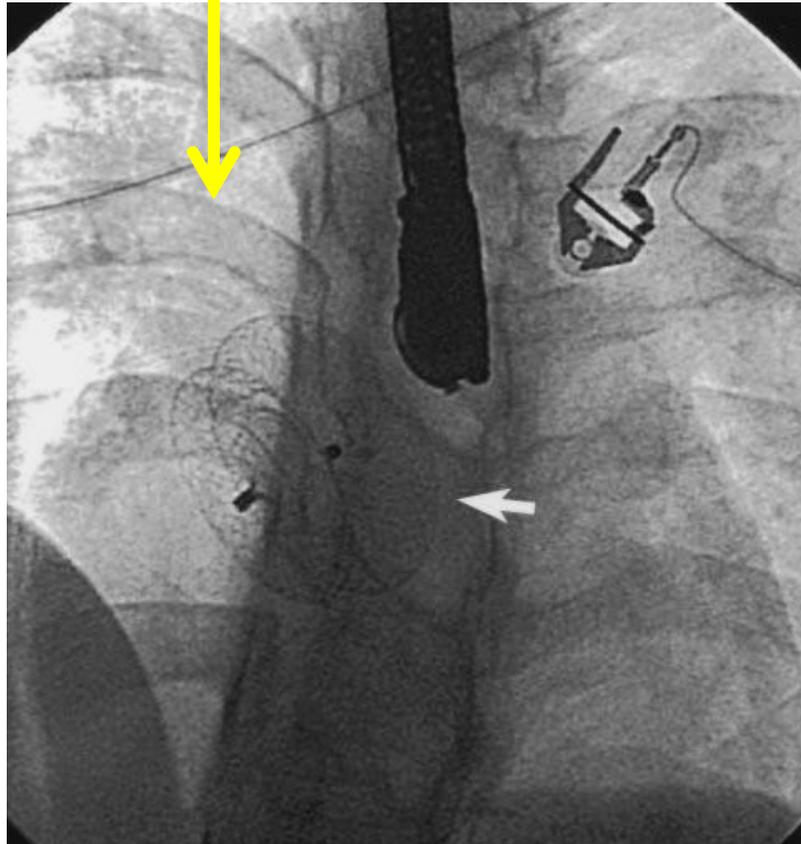
• Rythmologie



- 
- Ablations
 - Pacemakers (épicardiques...)
 - Défibrillateurs, resynchronisation



**Prothèse
CIA**



CIA sinus venosus



**Fermeture percutanée
« Optivenosus »**

ue S8-3

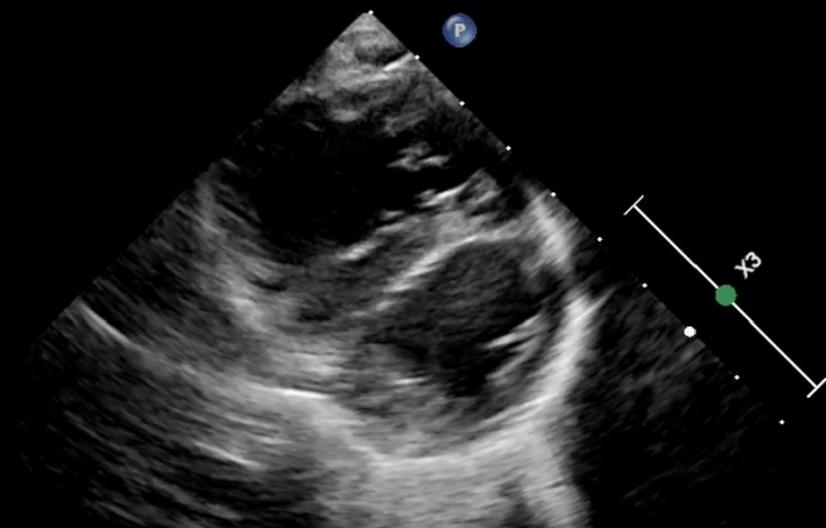
TIS1.6 MI 0.6 CCM MONACO Philips Medical Systems

1/83

10cm

2D

63%
C 50
P Arrêt
Gén



M4

CompRatio: 100

e S8-3

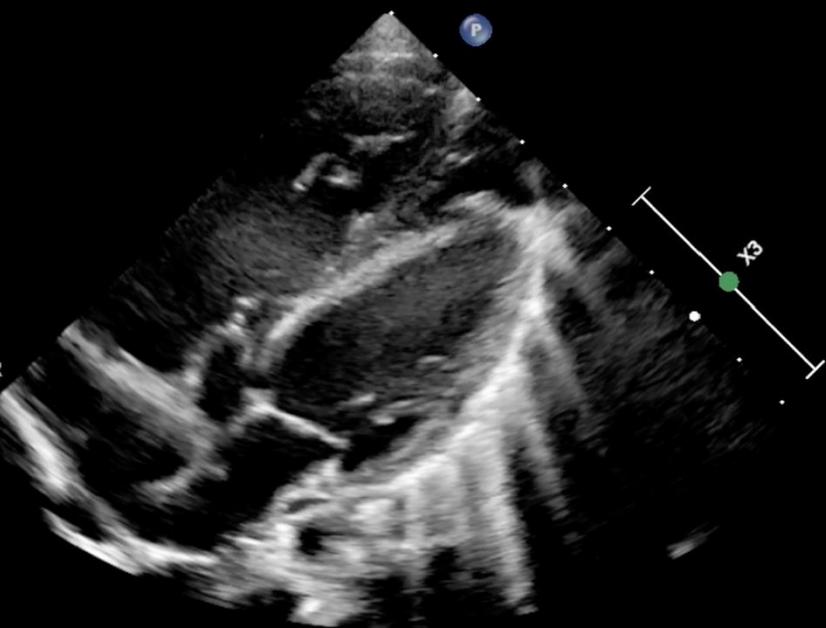
TIS1.6 MI 0.6 CCM MONACO Philips Medical Systems

1/90

10cm

2D

63%
C 50
P Arrêt
Gén



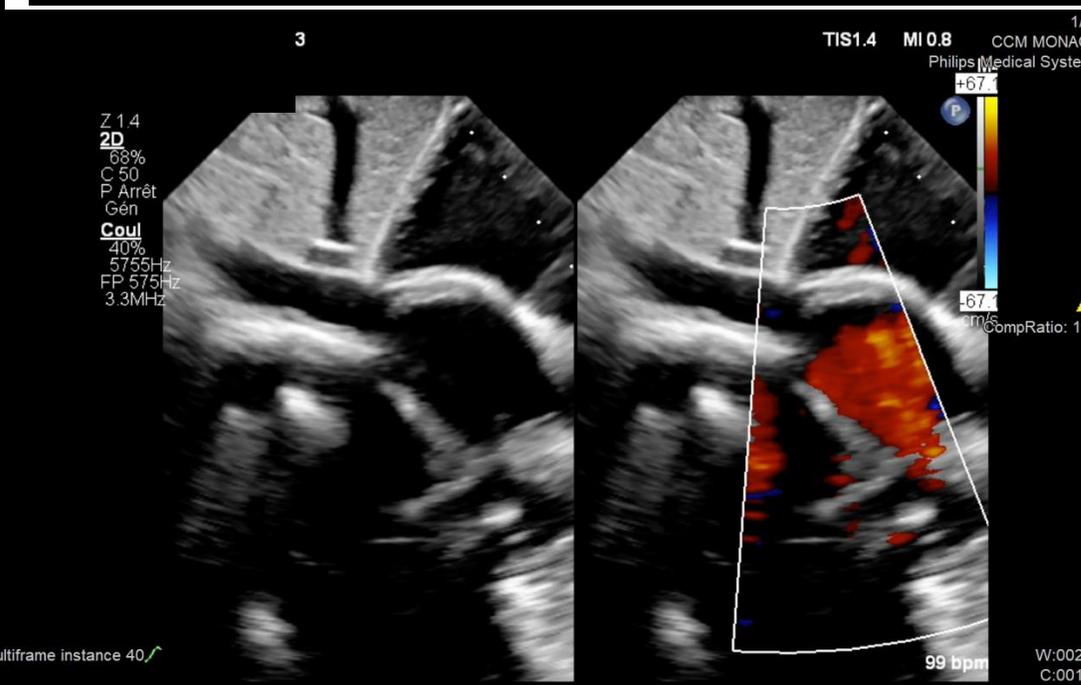
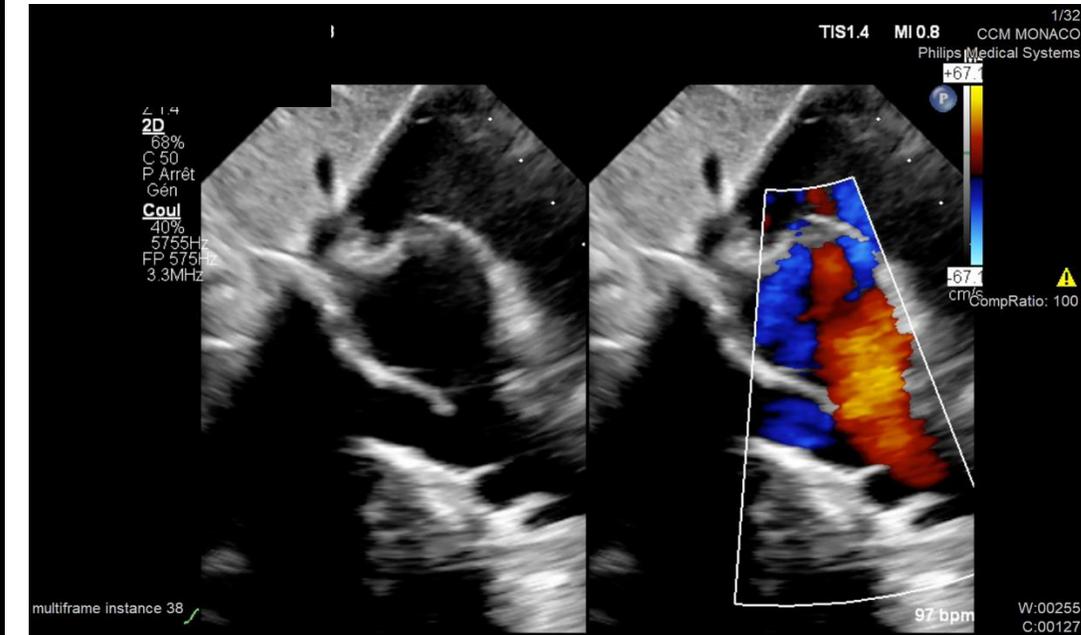
M4

CompRatio: 100

96 bpm

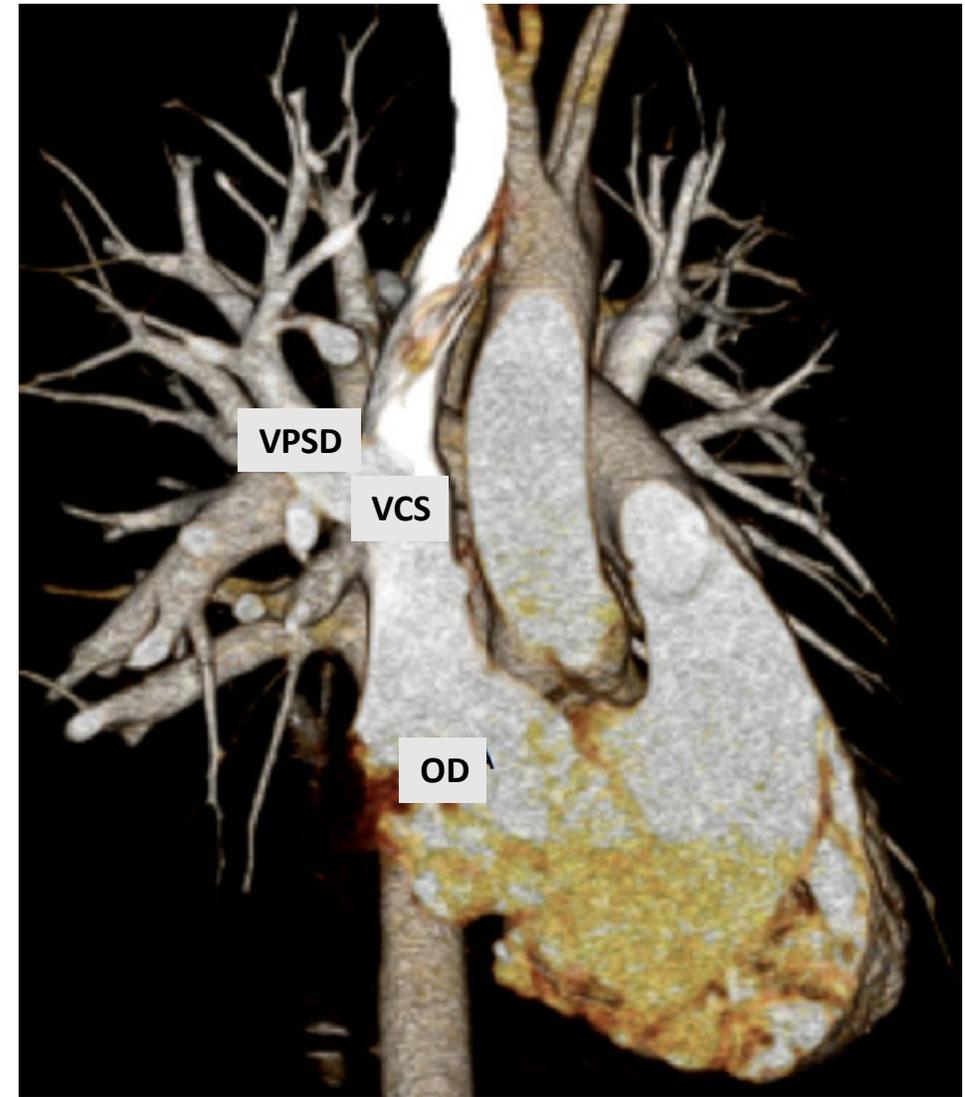
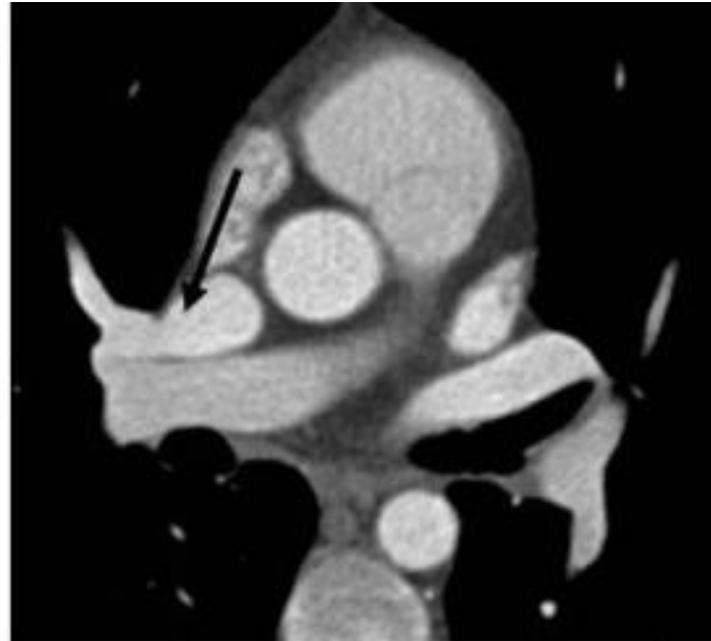
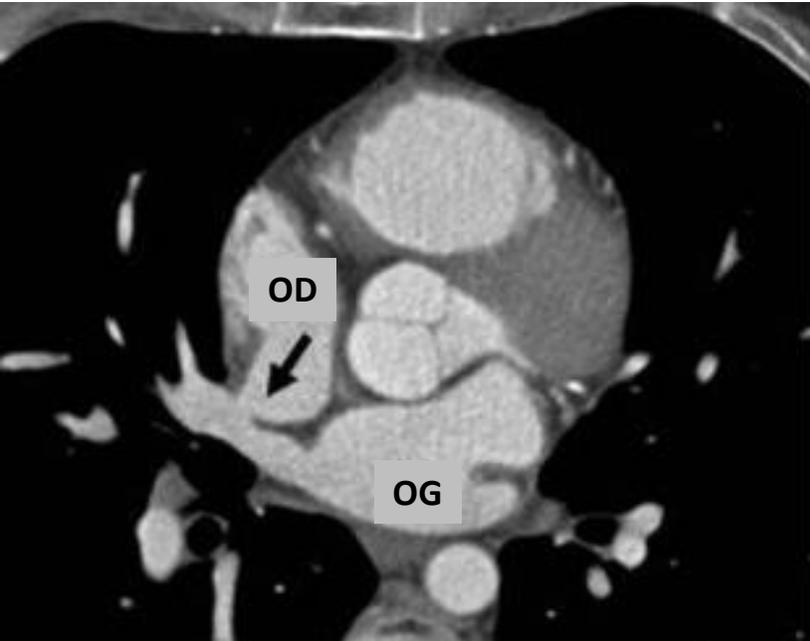
W:00255
C:00127

multiframe instance 5

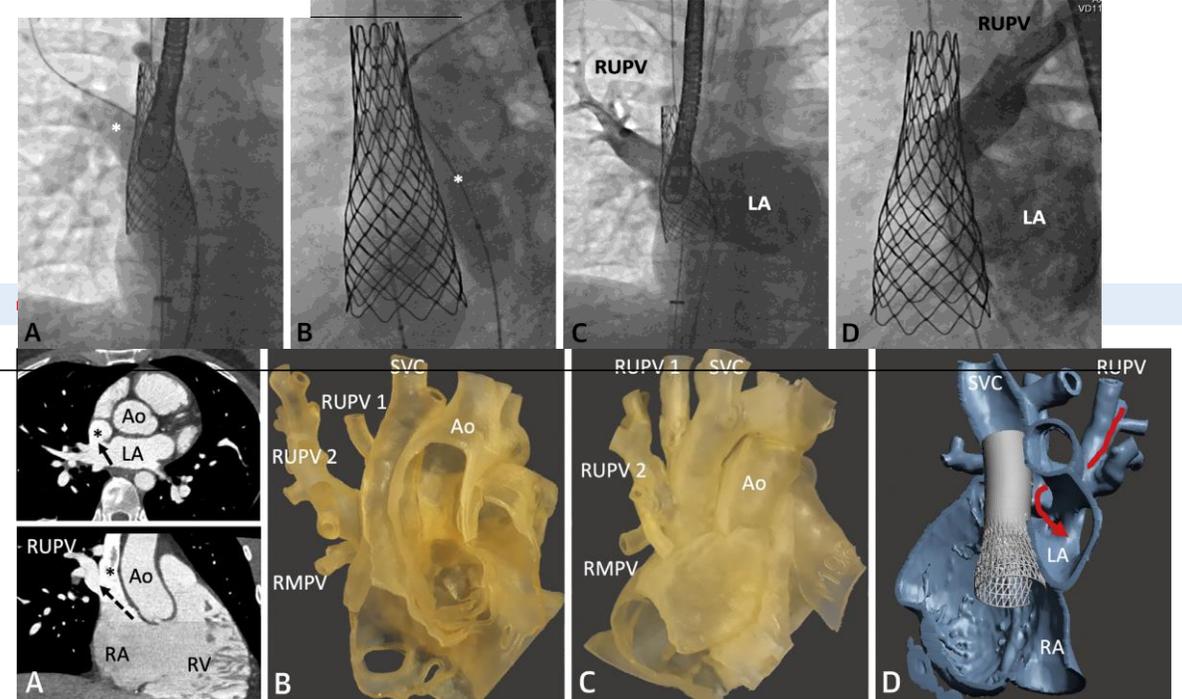
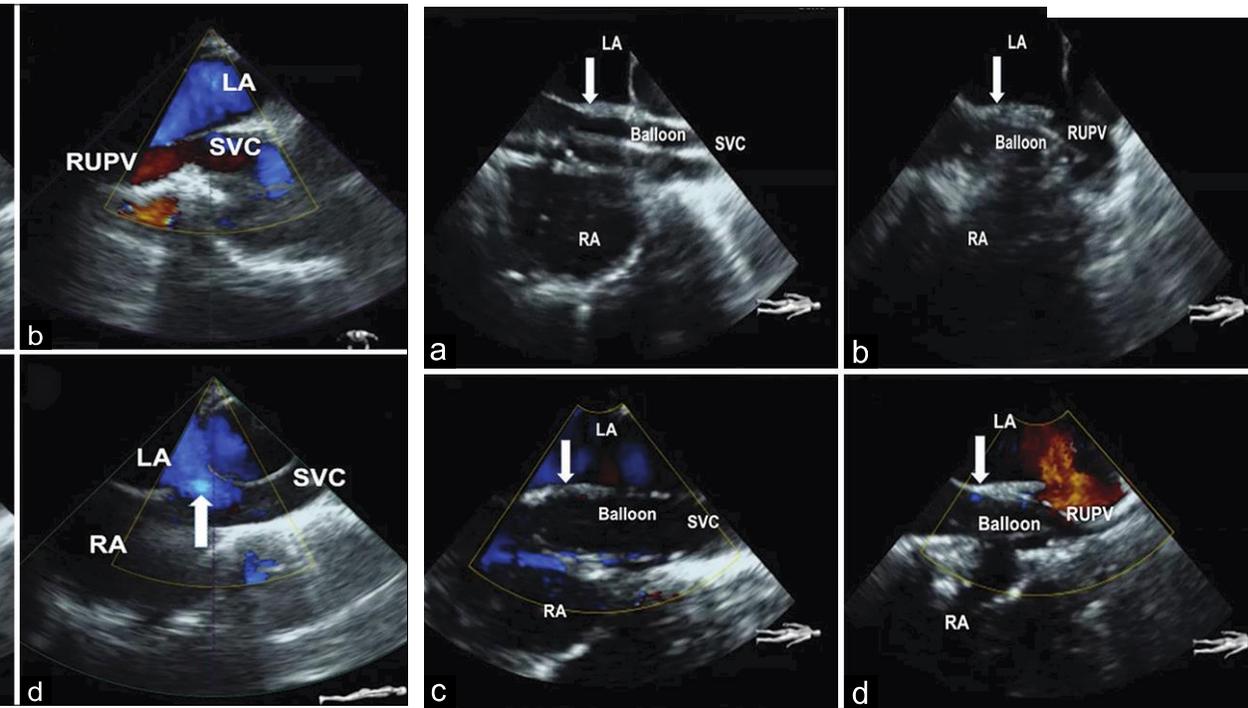
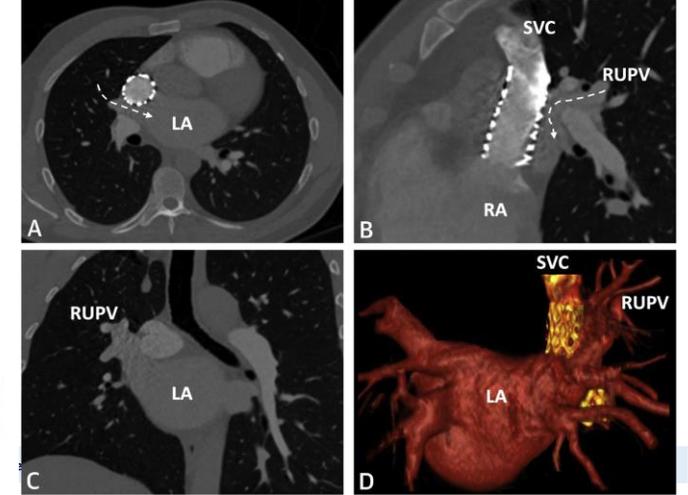
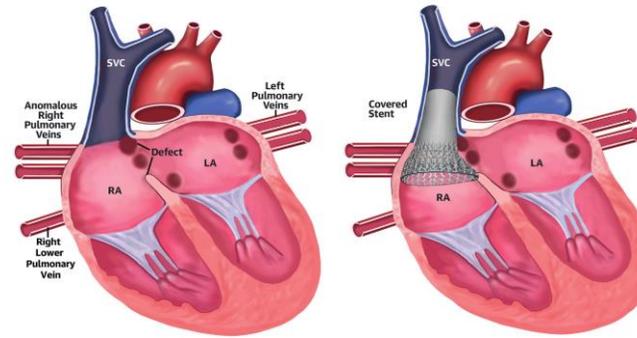
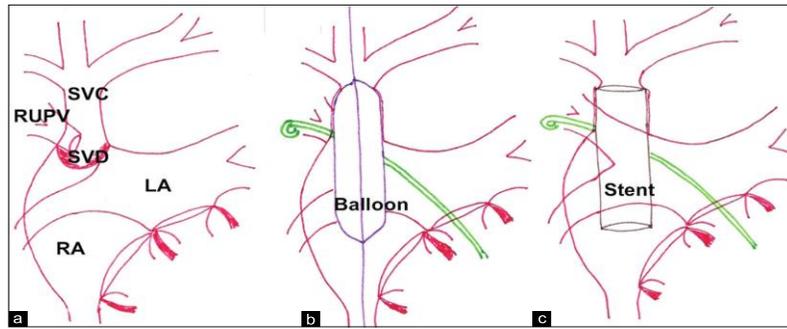


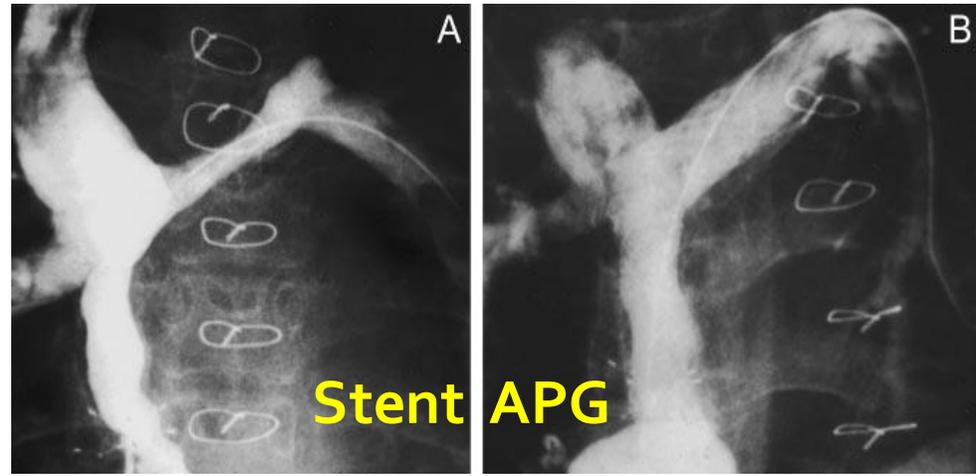
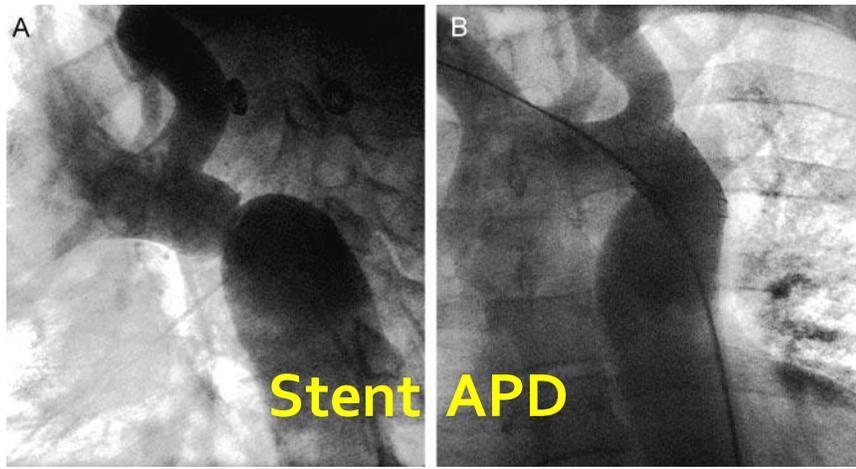
multiframe instance 40

Scanner CIA sinus venosus

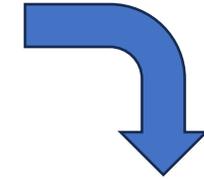
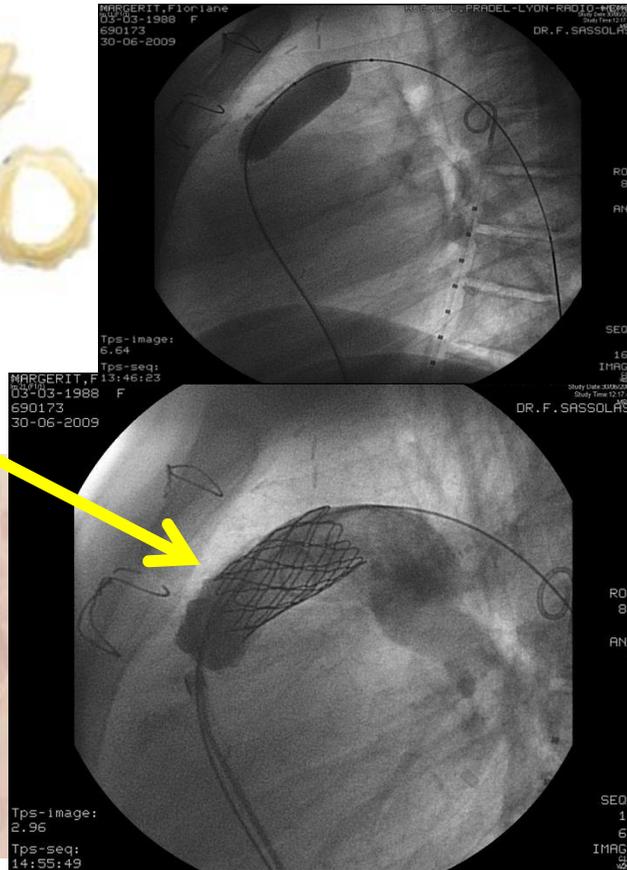


Novel technique for transcatheter closure of sinus venosus atrial septal defect. Y Hejazi et al. *Cath Card Interv* 2022;100:1068





**Valve Pulmonaire
percutanée**

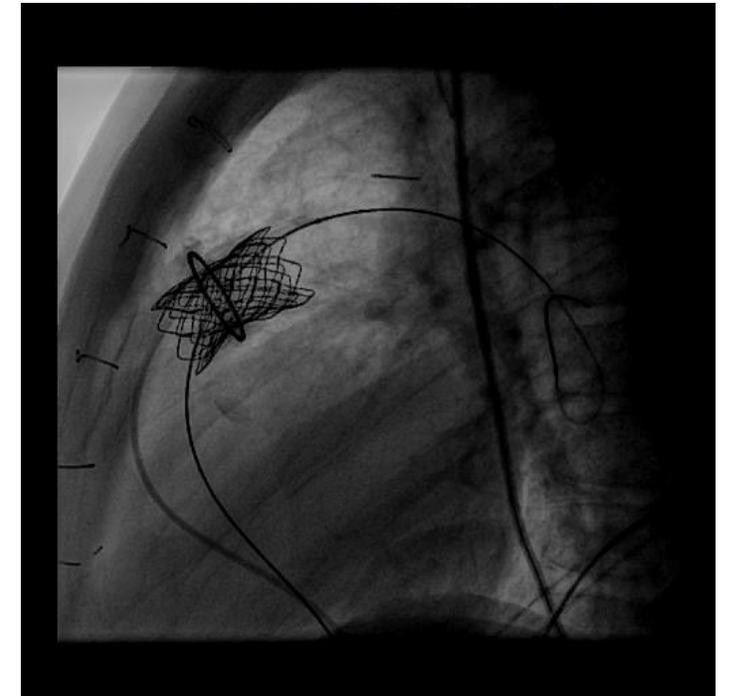
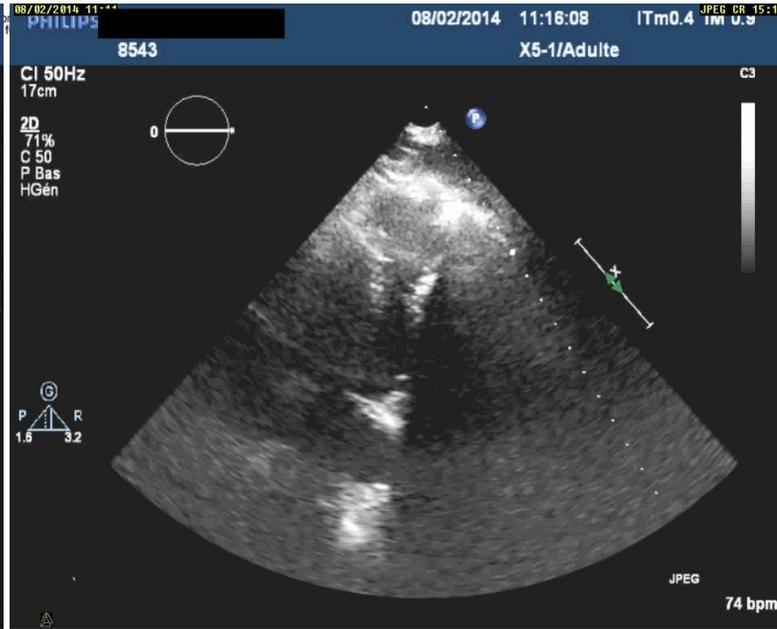
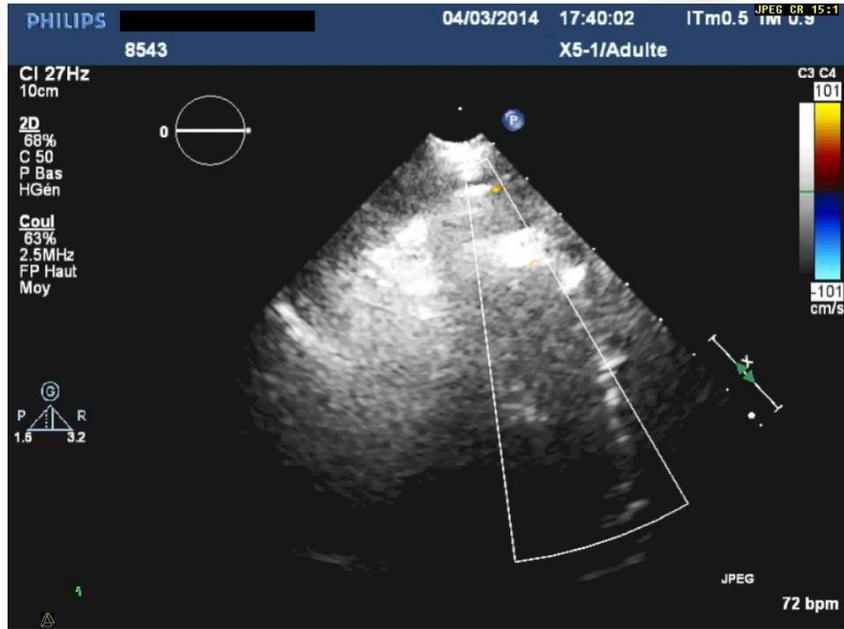
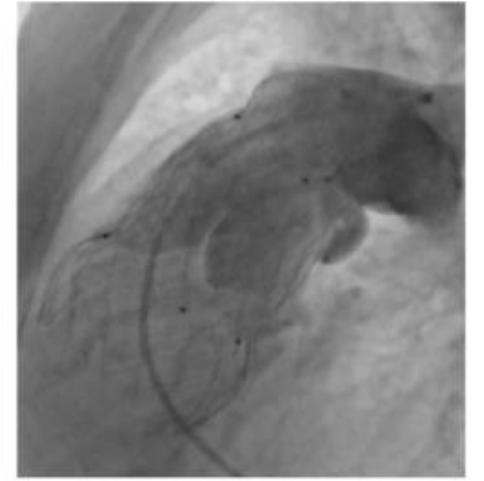
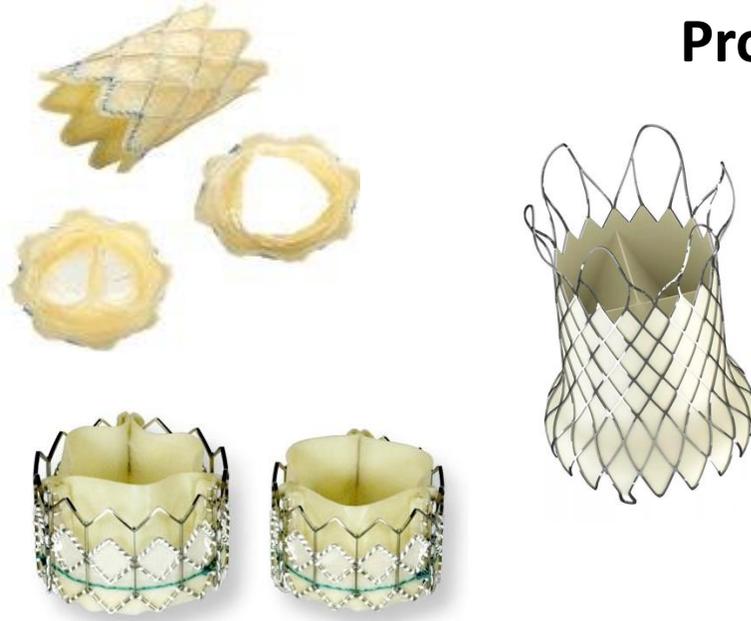
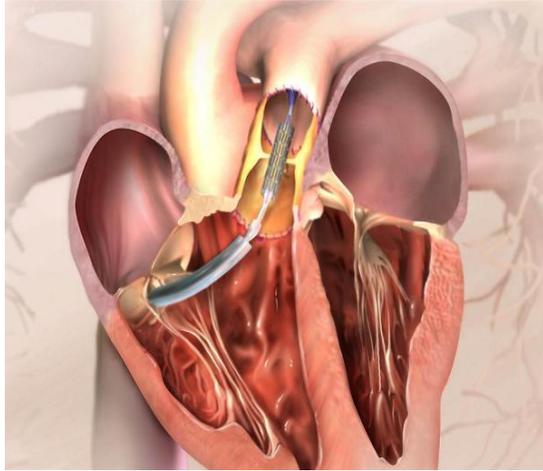


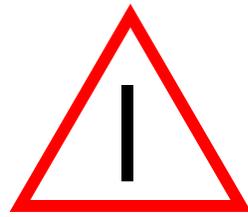
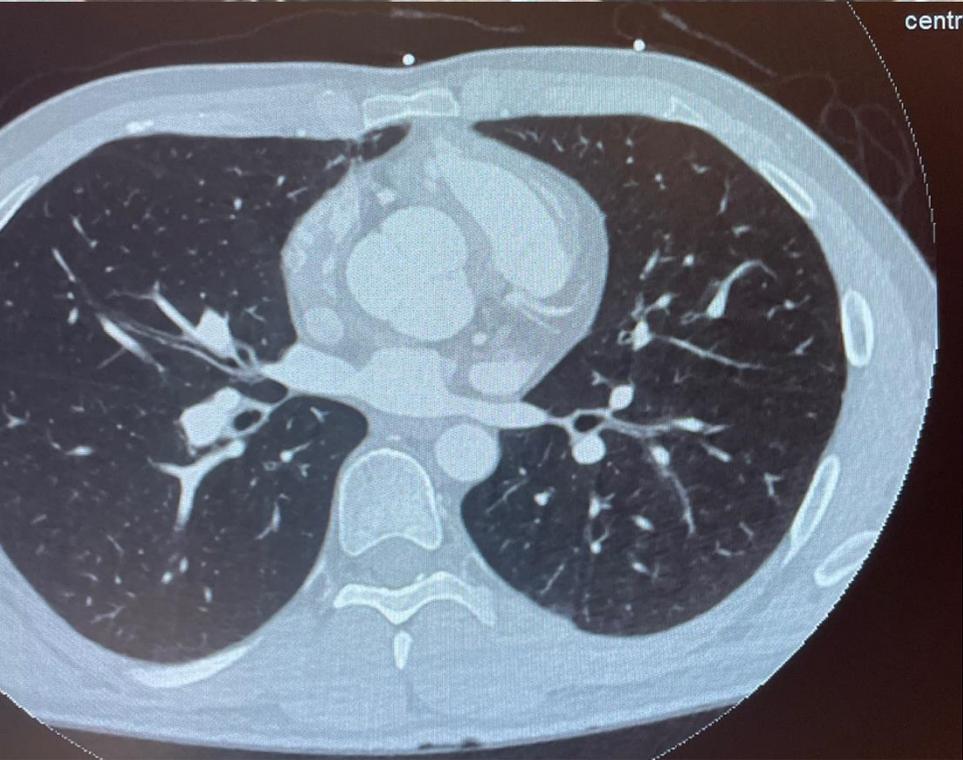
MELODY

EDWARDS

VENUS

Prothèse valvulaire pulmonaire percutanée



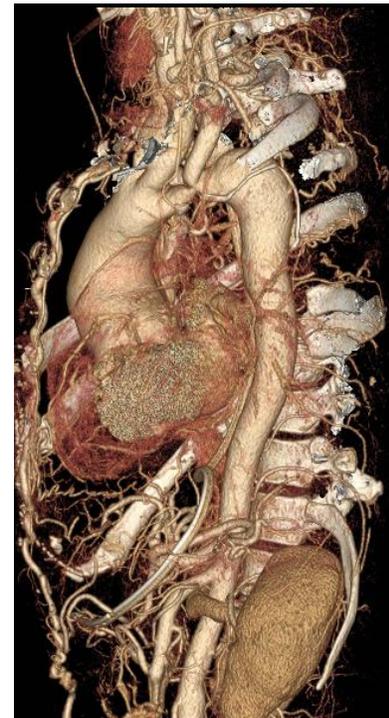
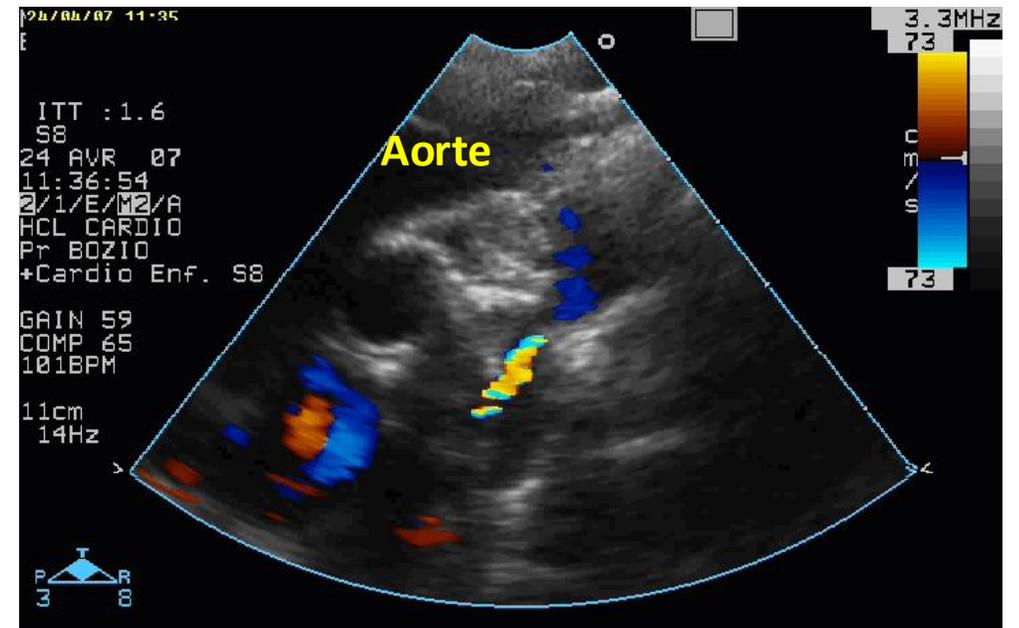
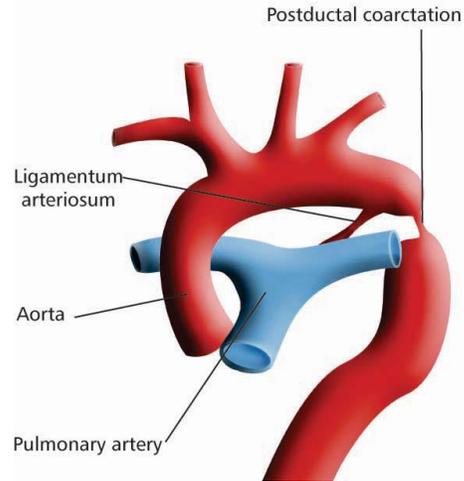


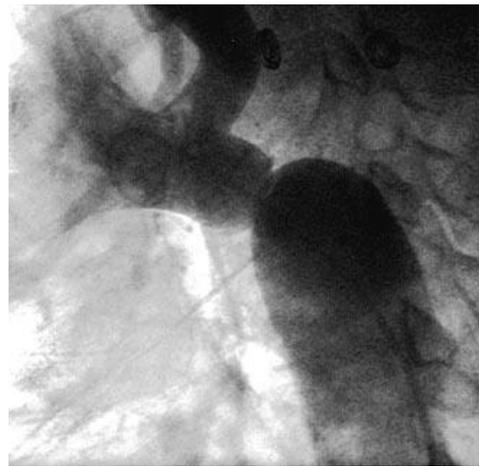
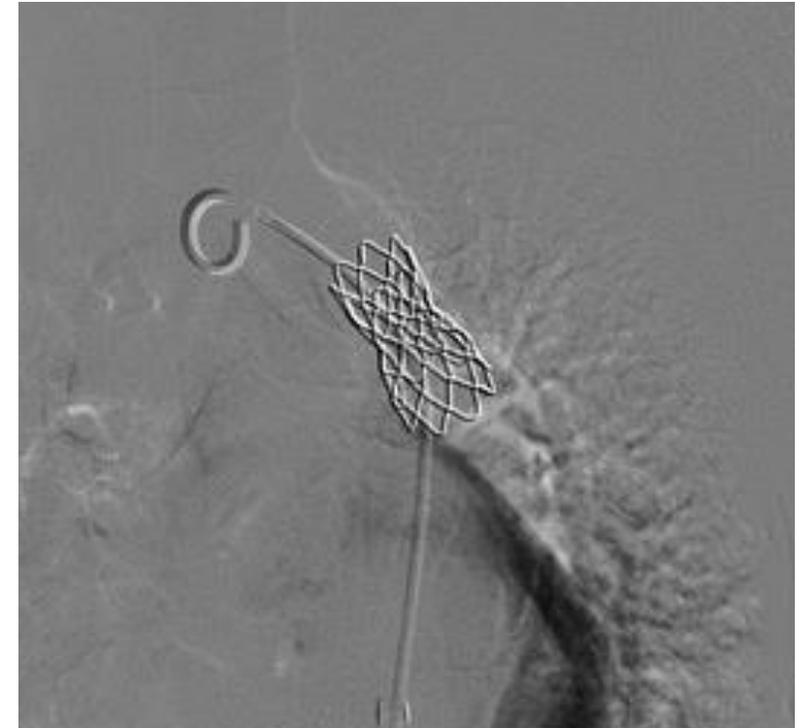
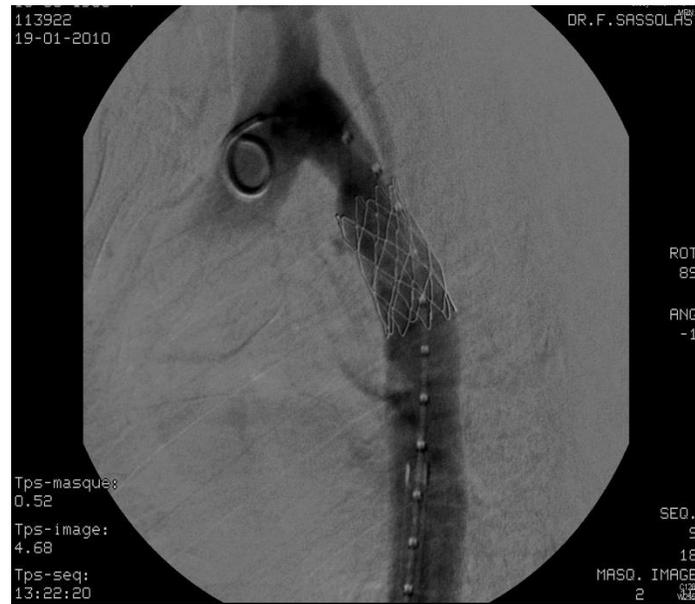
POSITION DES CORONAIRES



Coarctation aortique

- HTA sujet jeune
- Bicuspidie aortique : 50%
- Scanner ou IRM





- **Qualité de vie: satisfaisante**

Congenital Heart Initiative (CHI) :
digital, online, patient-empowered registry
of patient-reported outcomes (PROs) in ACHD

JAMA Network Open 2024;7(10):e2439629

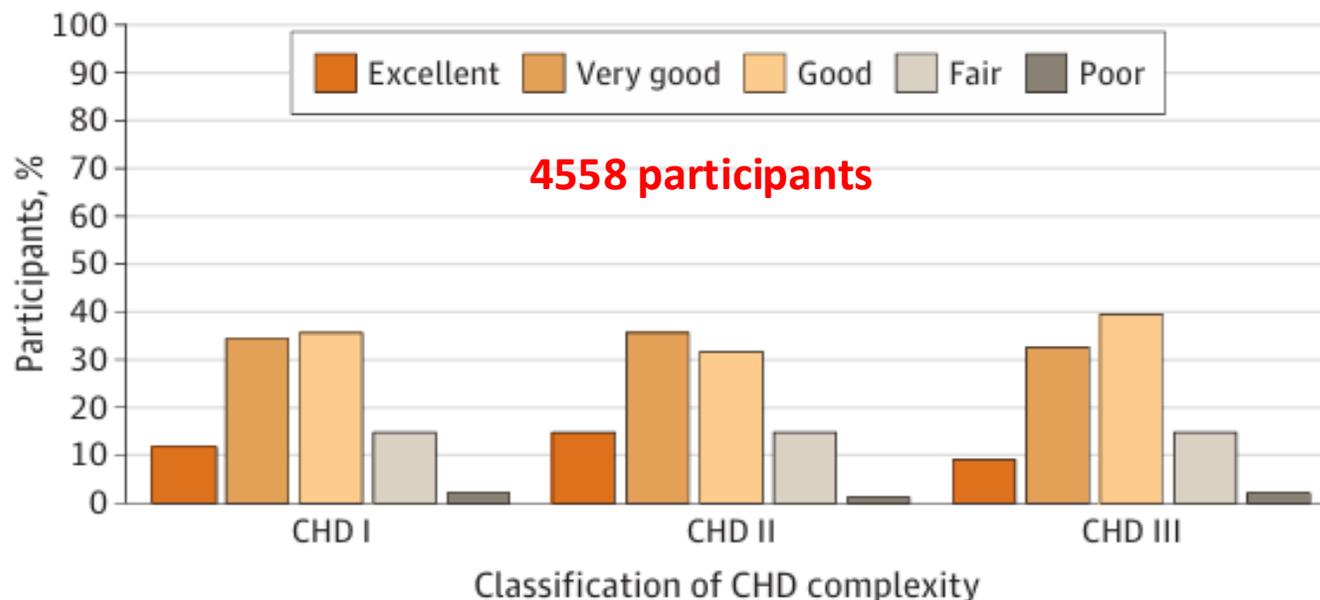
- **Sport : recommandé**

- Intérêt de EFCR/ VO2max

JASE 2024 (24)00638-2.

- **Grossesse**➔

- Le plus souvent possible
- Récurrence de la CC



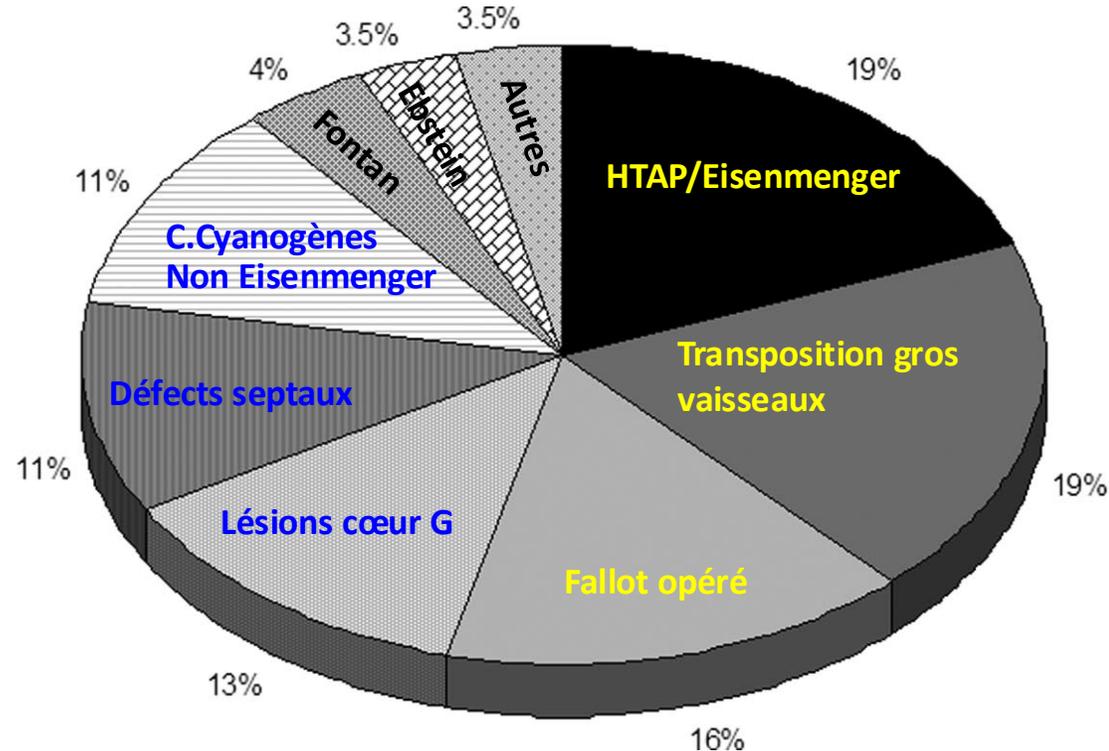
Pas de risque	Risque minime	Risque significatif	Grossesse contre indiquée
<ul style="list-style-type: none"> •RP, CIV,CAP petits/modérés •IM petite sur prolapsus •CIA, CIV, CAP, réparées avec succès 	<ul style="list-style-type: none"> •CIA non opérée •Tétralogie de Fallot opérée •Dysfonction VG minime •Cardiomyopathie hypertrophique •Marfan sans dilatation de la racine de l'aorte 	<ul style="list-style-type: none"> •Valve mécanique •VD systémique •Fontan •Cardiopathie cyanogène •Autres cardiopathies congénitales complexes 	<ul style="list-style-type: none"> •HTAP sévère •Dysfonction VG sévère (FE<40%) •ATCD de cardiomyopathie du peripartum avec dysfonction VG •Obstruction sévère gauche •Marfan: racine aortique>40 mm

25 790 adultes avec CHD
1189 décès (5%) dont

213 morts subites = 19% des décès

Mort subite

Circulation. 2012;126:1944-1954



Cardiopathies

- mineures: 12%
- modérées: 33%
- sévère: 55%

Variables associées à la MS

- Tachycardie
supraventriculaire
x 3,5
- Dysfonction du ventricule
systémique
x 3,4
- Dysfonction du ventricule
sous pulmonaire
x 3,4
- Élargissement QRS
x 1,34
- Dispersion QT
x 1,22

Stratification du risque

- **Critères**
 - Clinique: signes d'IC, malaise, syncope
 - Traitement antiarythmique
 - ECG : QRS largeur
 - Holter ECG : QT dispersion
 - ECHO : fonction myocardique
- **Evaluation spécifique à chaque cardiopathie**

Int J Cardiol 2017; 245 : 125–130

Circulation. 2012;126:1944-1954

Valente AM, et al. Heart 2014;100:247-

Cas clinique

- Patient de 54 ans (18/04/1969)
- **Tétralogie de Fallot**
- 22/05/1970 : anastomose AO AP gauche
- 24/07/1975 : correction complète
- Anomalie génétique : `
syndrome Di George
microdélétion 22q11
- Pharyngoplastie en 2002
- Dernière consultation : 2021

Vu en urgence 4/09/2023: dyspnée depuis 4 jours, orthopnée, NYHA IV

EXAMEN: IC globale avec OAP, OMI, HMG, FC 170/mn, TA conservée, satO2 normale sous air

ECG: Flutter auriculaire



ECHODOPPLER

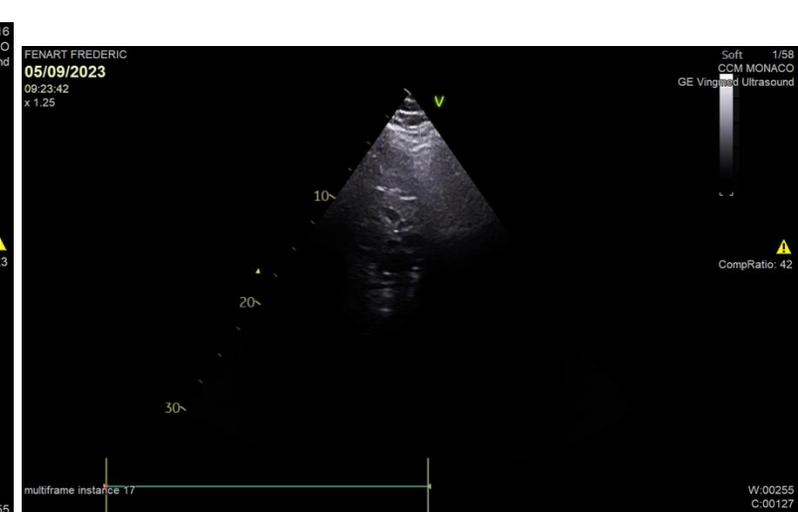
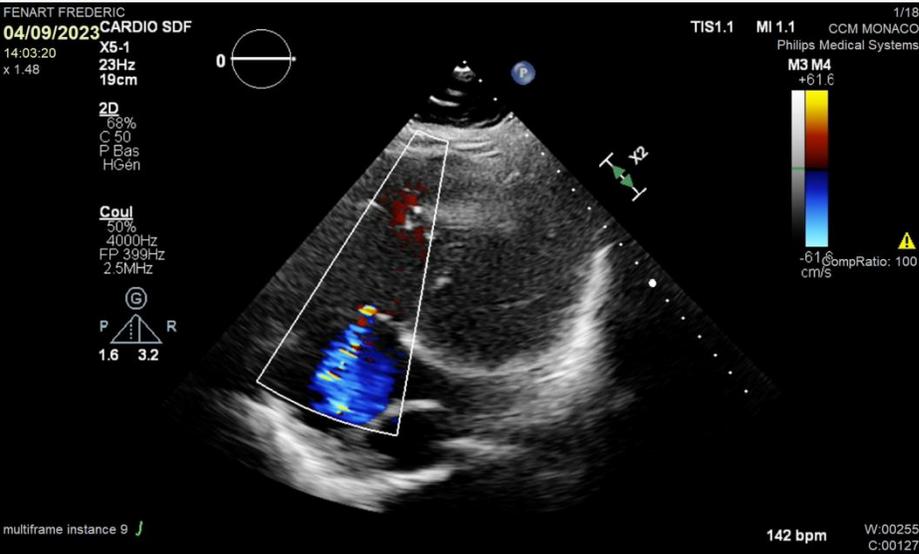
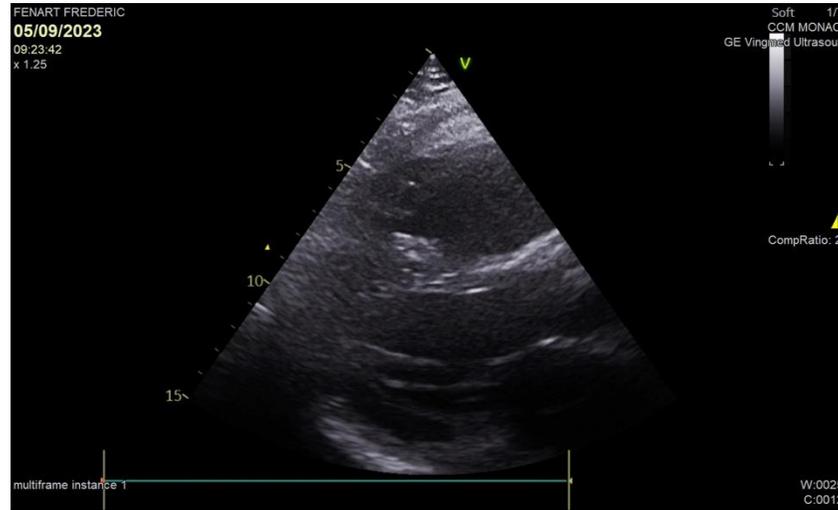
Dysfonction VD majeure

IP grade 3

IT grade 2

Dysfonction VG majeure

IM grade 2



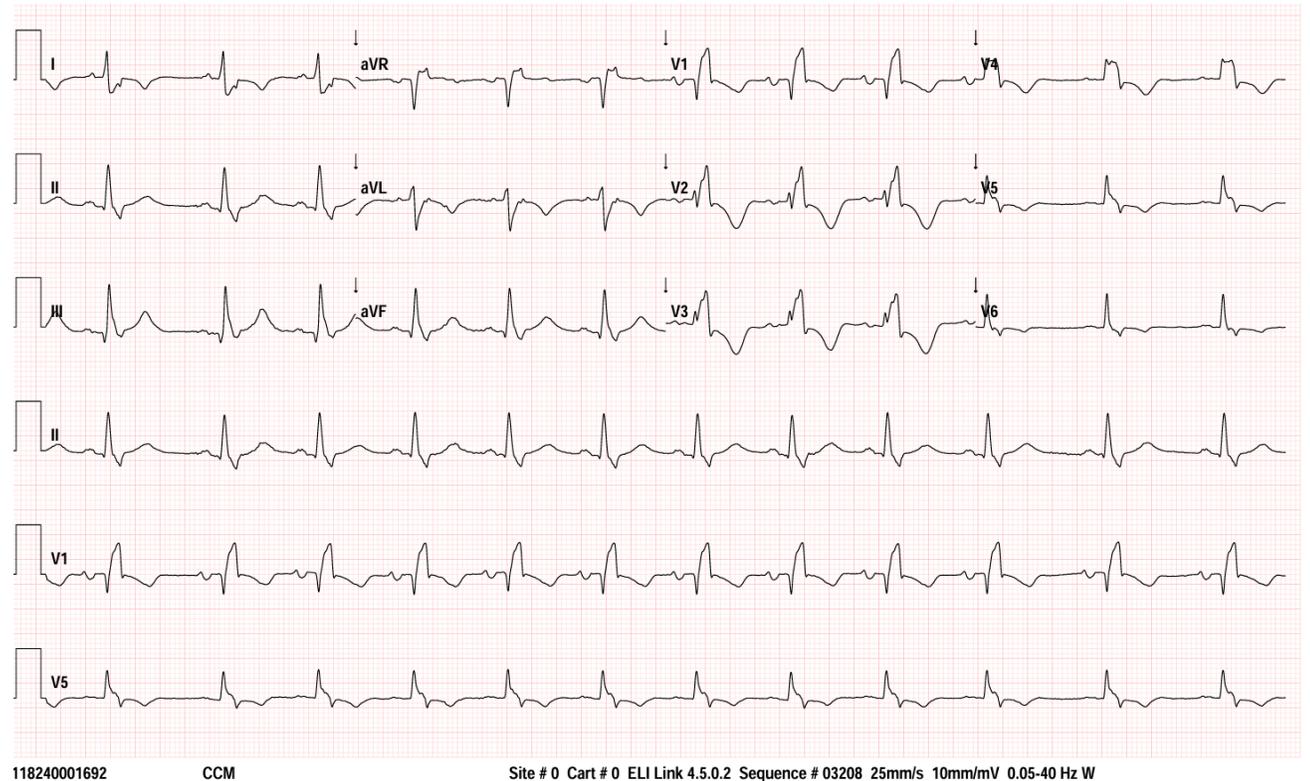
Evolution

- Prise en charge rythmologique en urgence :

ablation

➔ Retour en RS stable

- Entresto, Forxiga, Lasilix, Aldactone, bisoprolol, spironolactone, apixaban
- ECG: RS 70/mn, BBDC
- ETT: FEVG normale, pas d'IM, IT 2, VD dilaté, IP grade 3
- Scanner
- IRM



ECHODOPPLER post-ablation

Dysfonction VD modérée

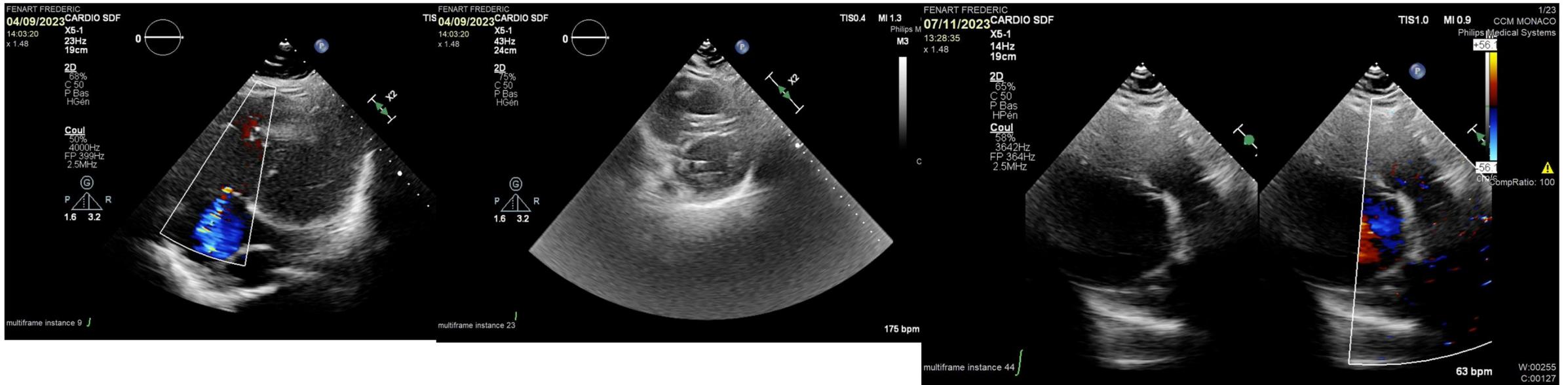
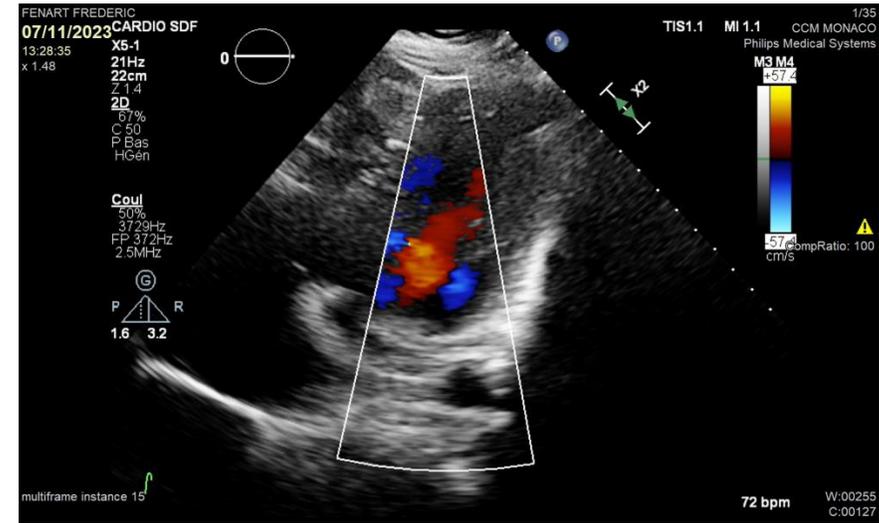
Dilatation VD

IP grade 3

IT grade 2

FEVG normale

Pas d'IM

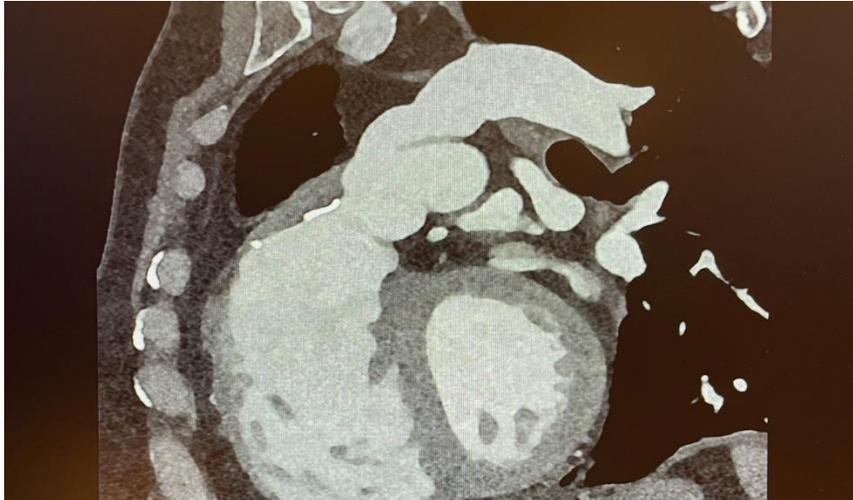
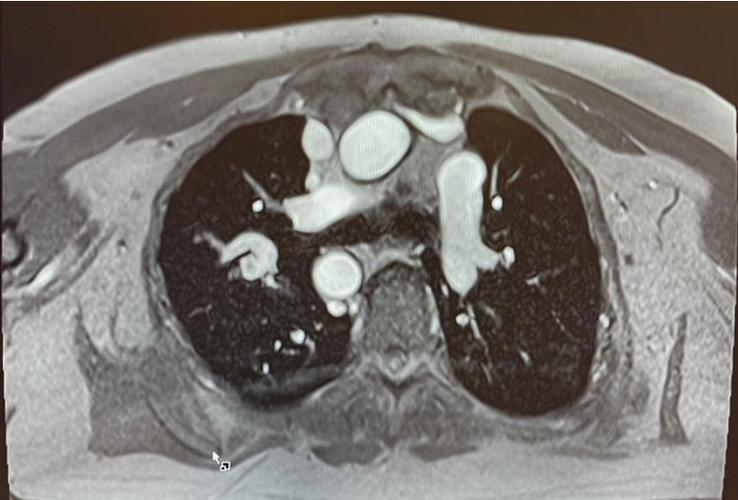
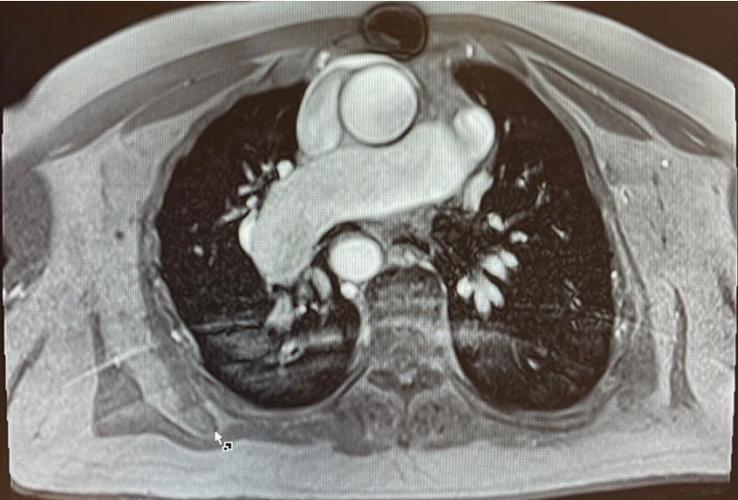


Scanner

APD

APG

Sténose APG



IRM

SiTm:13:59:52
FENART FREDERIC
 DoB:18/04/1969
 Age:049Y
24/04/2018
 14:41:46
 HFS
 x 3.26

RP

TR:48.28
 TE:1.23
 ST:6.00
 0/272/216/0
 APD

1 SiTm:15:19:56
 CCM **FENART FREDERIC**
 Skyra DoB:18/04/1969
 SeNo:43 Age:054Y
15/01/2024
 15:35:18
 HFS
 x 4.93

RHA

cm

RR 705 +/- 3; 8 heartbeats
 *tfi2d1_17
 cine 2C-4C (shim)

AFR

Centre Cardio Thoracique de Monaco
 MAGNETOM Skyra
 SeNo:7

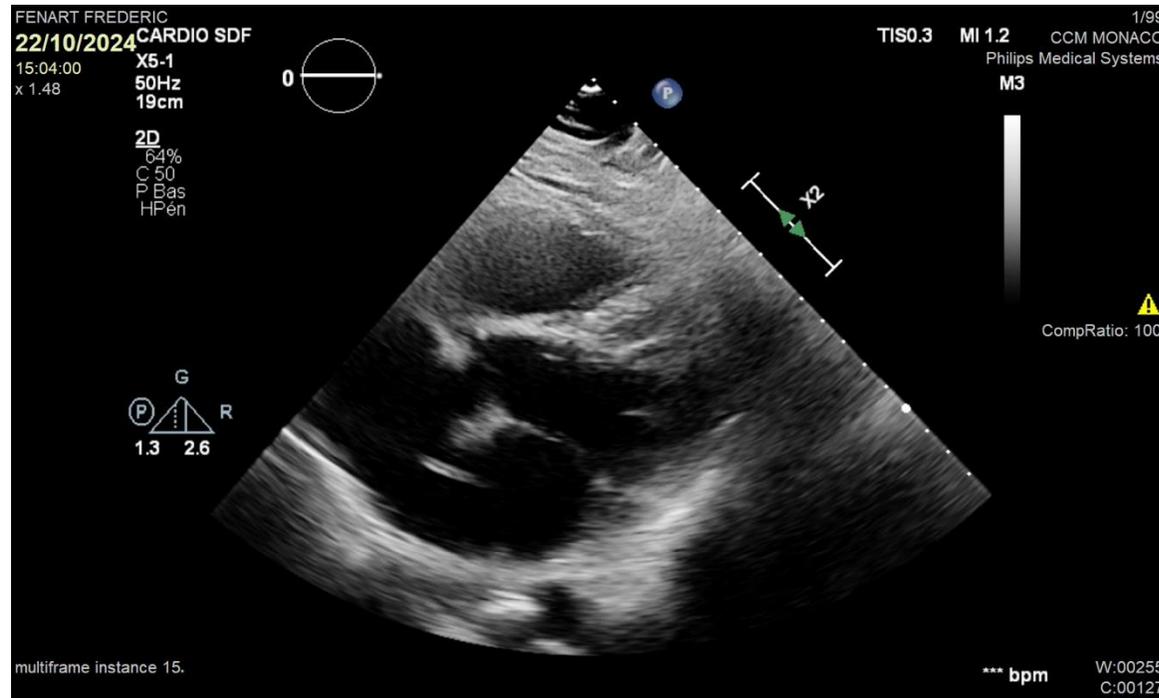
1/30

PHL

RR 761 +/- 4; 6 heartbeats
 *tfi2d1_14

Evolution

- **Indication : RVP + plastie APG proximale**
 - 1^{ère} intention: cathé / hémodynamique/ calibration : 04/ 07/2024
 - RVP percutané refusé
 - 2^{ème} intention : chirurgie
- **CEC le 2/07/24 : RVP biologique + plastie APG proximale**



Conclusion

- **Cardiopathies congénitales de l'adulte**
 - Multiples plus ou moins complexes
 - Comprendre anatomie et physiopathologie
 - Connaitre l' historique médico-chirurgicale individuelle
 - Pronostic variable
 - Qualité de vie satisfaisante mais surestimée par le patient`
- **Prise en charge**
 - Traitement médical
 - Traitement interventionnel percutané/chirurgical
 - Importance de imagerie en coupes
 - Evaluation état fonctionnel clinique / EFCR-VO2max