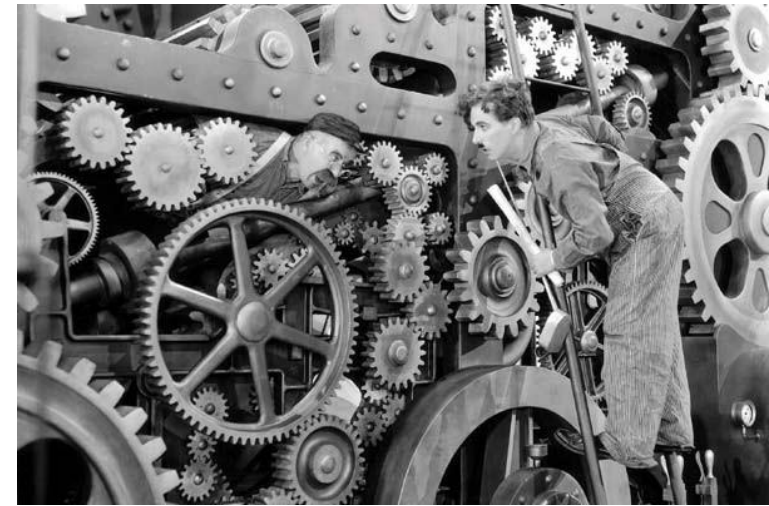


Fuite para prothétique mitrale

Quelles techniques?



DÉCLARATION DE LIENS D'INTÉRÊT AVEC LA PRÉSENTATION

Intervenant : Didier CHAMPAGNAC, Villeurbanne

Je déclare les liens d'intérêt suivants :

Honoraires : ABBOTT

Qu'est-ce qu'une fuite sévère?

Paramètres écho

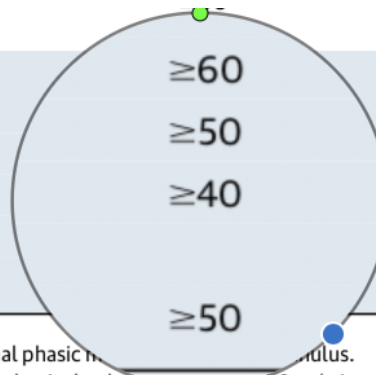
TABLE 4 Assessment of PVL Severity in Prosthetic Mitral Valves

3-Class Grading Scheme	Trace		Mild		Moderate		Severe
4-Class Grading Scheme	1	2	3	4	5	6	7
Unifying 5-Class Grading Scheme	Trace	Mild	Mild-to-Moderate	Moderate	Moderate to Severe	Severe	
Doppler echocardiography							
Structural parameters							
Sewing ring motion*	Usually normal	Usually normal	Normal/abnormal†	Normal/abnormal†	Normal/abnormal†	Normal/abnormal†	Normal/abnormal†
LA and LV size‡§	Normal	Normal	Normal	Normal/mildly dilated	Mildly/moderately dilated	Moderately/severely dilated	Moderately/severely dilated
RV size and function‡§	Normal	Normal	Normal	Normal/mildly dilated	Mildly/moderately dilated	Moderately/severely dilated	Moderately/severely dilated
Estimation of pulmonary artery pressures‡	Normal	Normal	Normal	Variable	Increased	Increased (TR velocity >3 m/s, SPAP ≥50 mm Hg at rest and ≥50 mm Hg with exercise)	Increased (TR velocity >3 m/s, SPAP ≥50 mm Hg at rest and ≥50 mm Hg with exercise)

PVL, % (color Doppler)*

Doppler parameters (quantitative)

RVol, ml/beat‡**	<10	<15	15 to <30	30 to <45	45 to <60
RF, %‡	<15	<15	15 to <30	30 to <40	40 to <50
EROA, mm ² ‡‡‡	<5	<5	5 to <20	20 to <30	30 to <40
CMR imaging					
Regurgitant fraction, %‡‡	<15	<15	15 to <30	30 to <40	40 to <50



*Parameters that are most frequently used to grade regurgitation severity by Doppler echocardiography. †>15° of sewing ring motion that is not consistent with normal phasic motion. ‡Parameters that are less often applicable due to pitfalls in the feasibility/accuracy of the measurements or to the interaction with other factors. §For bileaflet mechanical valve, E velocity >1.9 m/s is

+ clinique:

- Hémolyse
- Insuff.card.

Doppler parameters (qualitative or semiquantitative)	Trace	Mild	Mild-to-Moderate	Moderate	Moderate to Severe	Severe
Proximal flow convergence visible*	Absent	Absent/minimal	Absent/minimal	Intermediate	Intermediate	Large
Color Doppler jet area (Nyquist 50-60 cm/s)‡	Absent	Small, central jet (usually <4 cm ² or <20% of LA area)	Small, central jet (usually <4 cm ² or <20% of LA area)	Variable	Variable	Large central jet (usually >8 cm ² or >40% of LA area) or variable when wall impinging
Mean gradient (CW)‡	Normal	Normal	Normal	Increased	Increased	≥5 mm Hg
Jet profile (PW Doppler)‡	Normal (<130 ms)	Normal (<130 ms)	Normal (<130 ms)	Normal (<130 ms)	Normal (<130 ms)	Normal (<130 ms)
Jet profile (PW Doppler)‡	Not measurable	<2	2 to <3	3 to <5	5 to <7	≥7
Jet profile (PW Doppler)‡	Incomplete or faint	Incomplete or faint	Variable	Dense	Dense	Dense
Jet profile (PW Doppler)‡	Parabolic	Parabolic	Variable (partial or parabolic)	Variable (partial or parabolic)	Variable (partial or parabolic)	Variable (partial or parabolic)
Pulmonary vein flow:LV (PW Doppler)‡	Systolic dominance	Systolic dominance	Systolic dominance	Systolic blunting	Systolic blunting	Systolic flow revers
Pulmonary vein flow:LV (PW Doppler)‡	Equal (1:1)	Slightly increased	Slightly increased	Intermediate	Intermediate	Intermediate
MVPR flow:LV (PW Doppler)‡	Not quantifiable	<5	5 to <10	10 to <20	20 to <30	≥2.5
RVol, ml/beat‡**	<10	<15	15 to <30	30 to <45	45 to <60	≥60

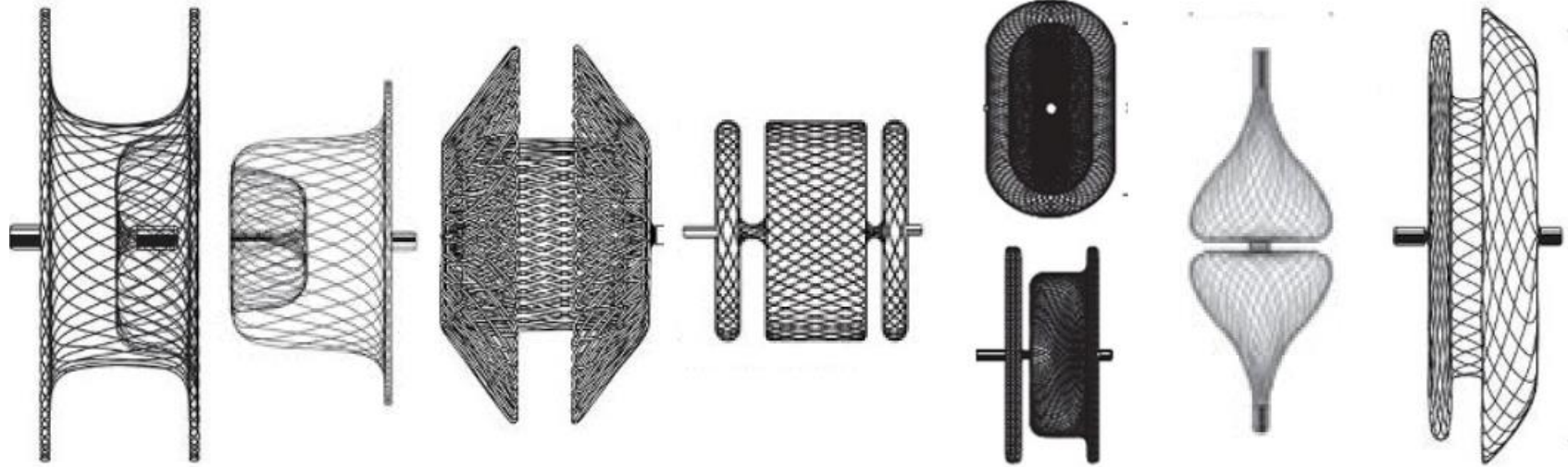
Par où on passe? Avec quel matériel?

- TSP vs trans apicale.
- Si TSP, franchissement antérograde ou rétrograde?
- Si rétrograde, trans aortique sauf si RVA méca.
(et encore...)

Quel matériel?

- TSP « habituel » et bistouri électrique si pas bayliss
- AGILIS
- Guide TERUMO droit, 150, 180, 260 cm
- JR4 ou autre...
- Guide Stiff (celui des TAVI par ex)
- Intro COOK ou TERUMO 5, 6 et 7 French, 90 ou 100 cm
- Gooseneck (Medtronic) ou En snare (Merit Medical)
- Matériel chir si T.A (repérage ETT apex) Pas d'expérience de voie percutanée apicale.
- Les « dispositifs »: AVP (2, 3 et 4), VSD, ADO 2 ...+ occlutech

Devices for mitral PVL



VSD

PDA

PDA-II

AVP-II

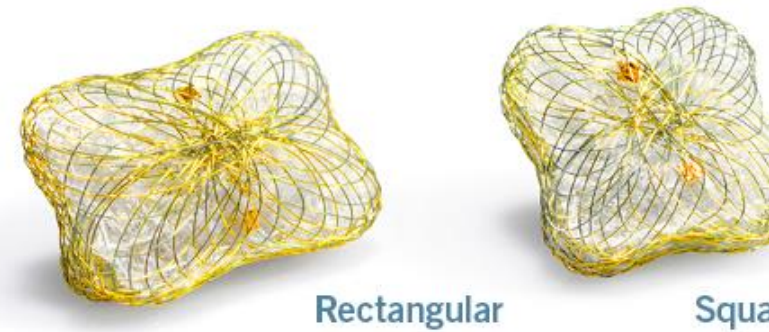
AVP-III

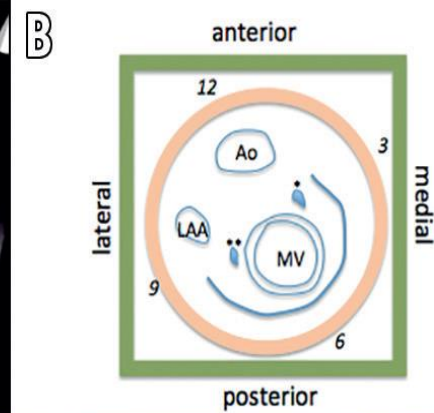
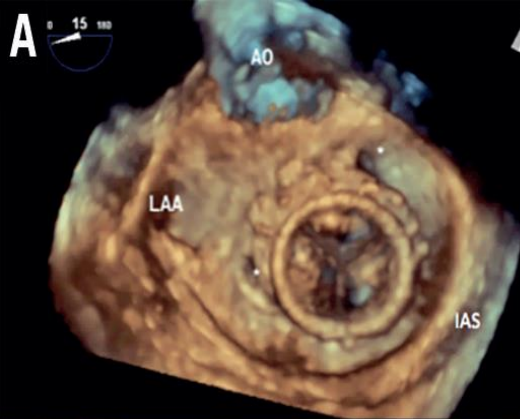
AVP-IV

ASD

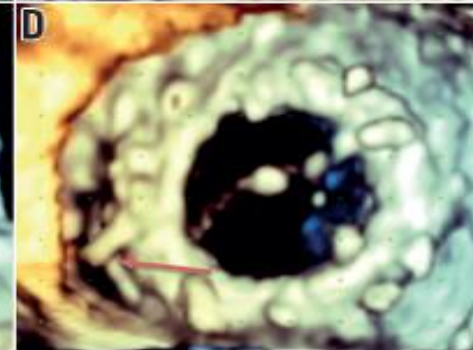
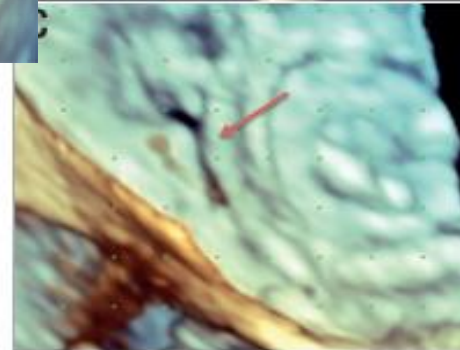
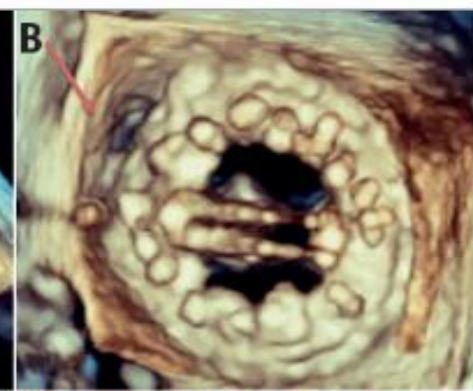
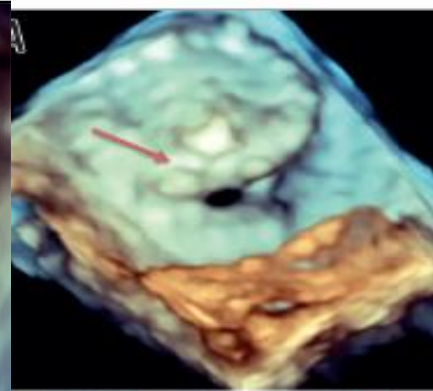
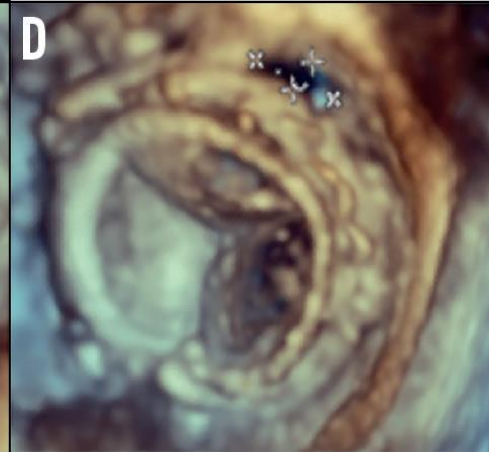
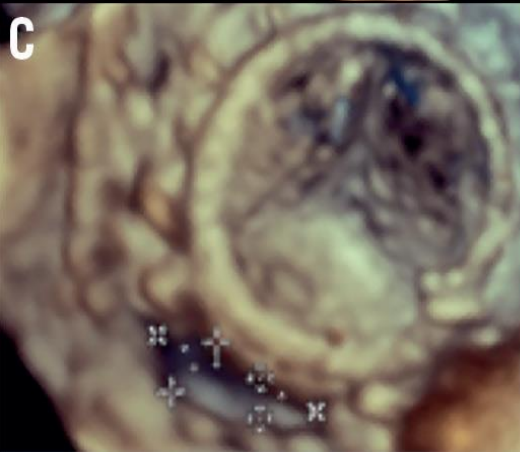
Waist & Twist

The Occlutech PLD is available with two types of connections between the discs, **Waist** or **Twist**. Example below shown on a Occlutech PLD Square.



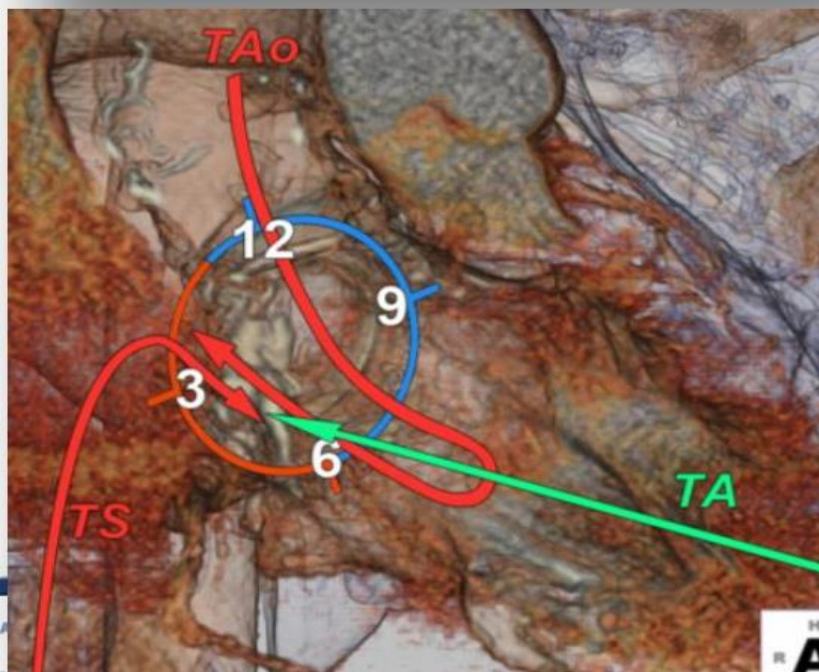
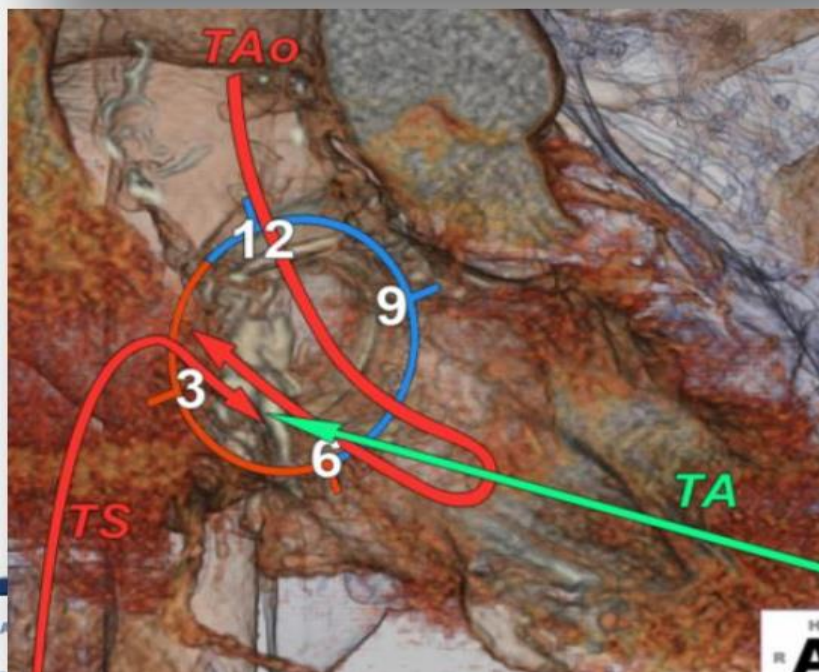
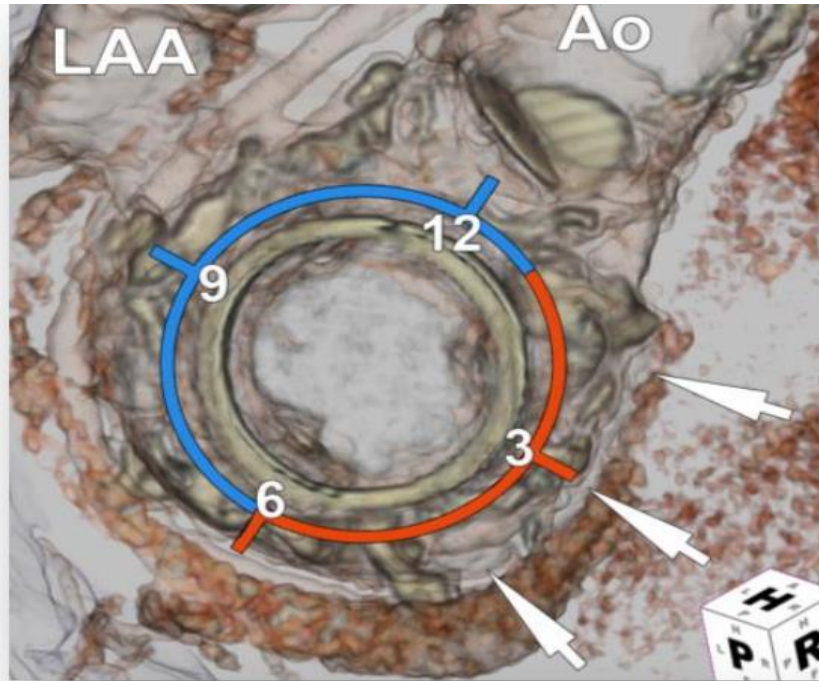
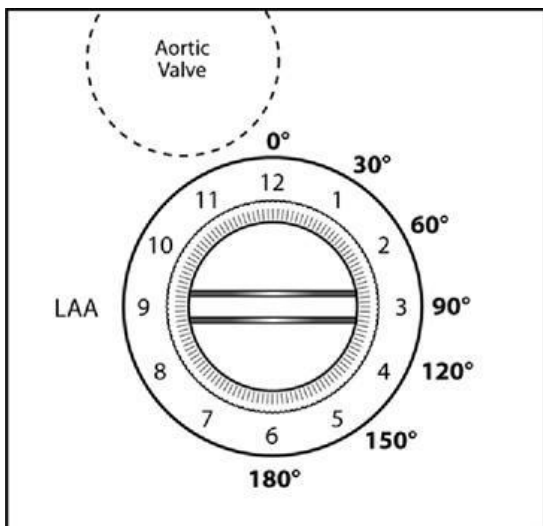


Le choix de la voie d'abord
 dépend de la **description**
 de la fuite



Le choix du matériel
 dépend de la
description de la fuite

Figure 1. Shape of paravalvular leaks. Paravalvular leaks can take a variety of shapes. These include round (A), oval (B), slit-like (C) and crescentic (D).



Cas « facile »: fuite bien décrite, site accessible en TSP

- Patient né en 1957
- RVA + RVM méca 2011
- Hémolyse et insuffisance cardiaque 2017
- ETT: ITV mitrale/Ao = 2.5, HTAP 65 mm Hhg
- ETO: PVL située entre 8 et 9 heures, ovale, 12mm/4mm
- Plan: voie antérograde, Plug AVP3

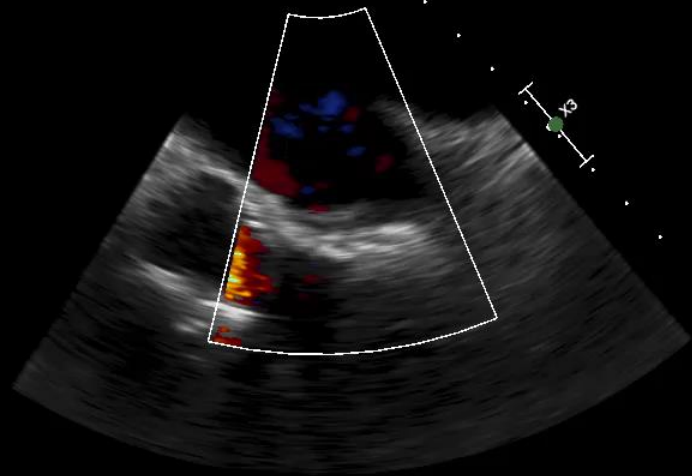
CARDIO ETO EXT

X7-2t
27Hz
12cm

2D
62%
C 50
P Arrêt
HGén

Coul
48%
6838Hz
FP 615Hz
4.4MHz

③
P R
2.7 5.4



PAT T: 37.0C
TEE T: 38.7C

TISO.6 MI 0.4

CARDIO ETO EXT

X7-2t
10Hz
12cm

Volume total
2D / 3D
% 72 / 8
C 50 / 15
HGén

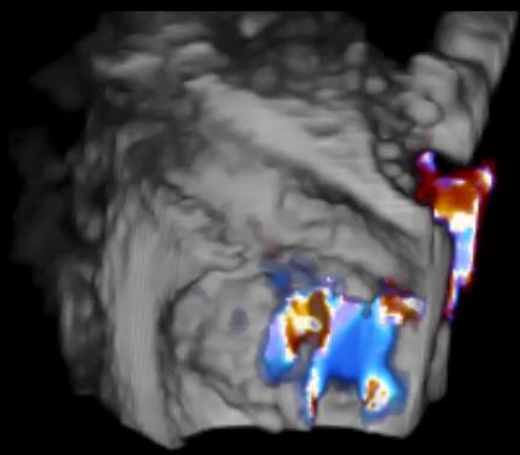
Coul
% 48 / 50
5605Hz
FP 560Hz
4.4MHz



PAT T: 37.0C
TEE T: 39.0C

Battem. 3D 6

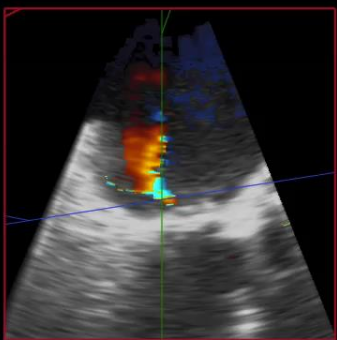
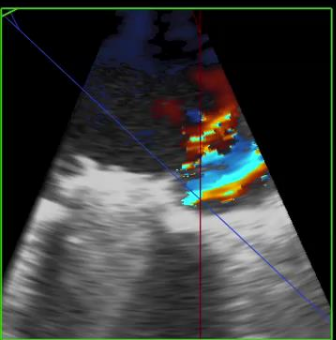
TISO.6 MI 0.3



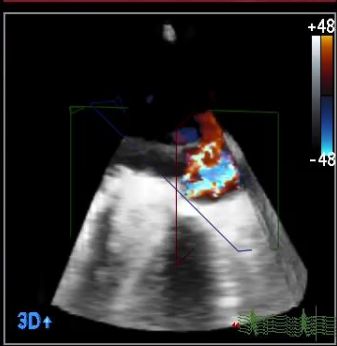
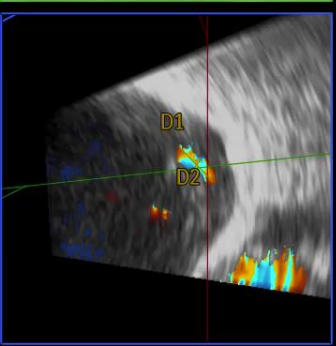
95 bpm

⚡ Délai 0ms

100 bpm



Distance(s)	
D1	1.19 cm
D2	0.38 cm



3D+

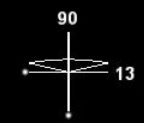
CARDIO ETO EXT

X7-2t
56Hz
14cm

xPlane
65%
65%
50dB
P Arrêt
HGén

③
P R
2.7 5.4

PAT T: 37.0C
TEE T: 40.0C



107 bpm

CARDIO ETO EXT
X7-2t
5Hz
8.6cm

Battem. 3D 1

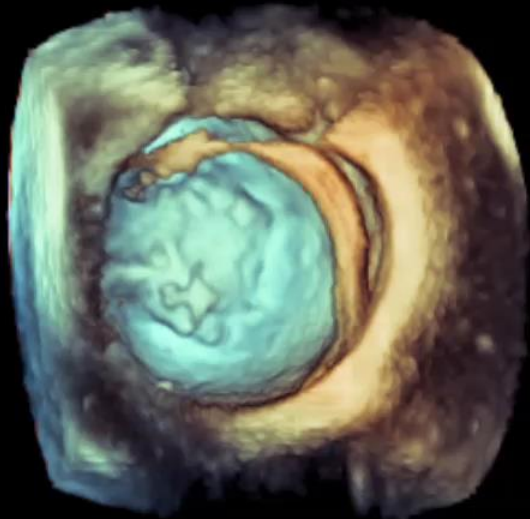
TIS0.2 MI 0.5

CARDIO ETO EXT
X7-2t
11Hz
10cm

Battem. 3D 1

TIS0.2 MI 0.5

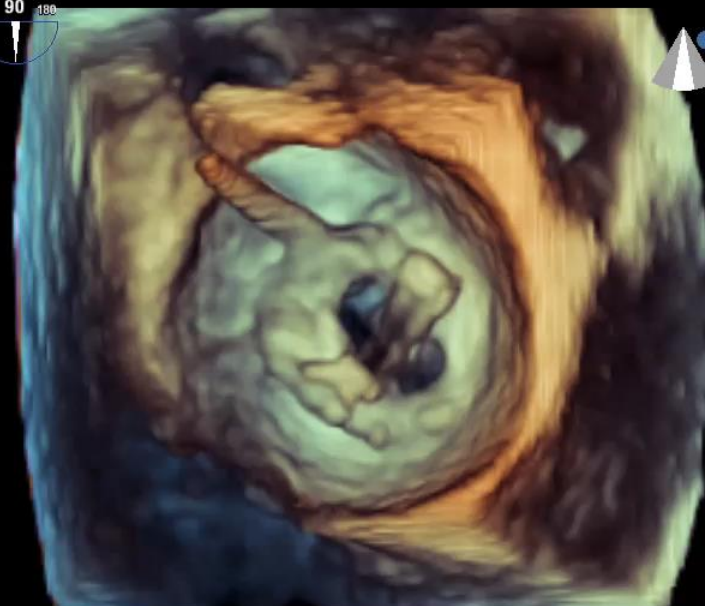
Zoom 3D
2D / 3D
% 65 / 29
C 50 / 30
HGén



M4



Zoom 3D
2D / 3D
% 62 / 0
C 50 / 0
HGén



M4



PAT T: 37.0C
TEE T: 39.8C

PAT T: 37.0C
TEE T: 38.7C

110 bpm

107 bpm

CARDIO ETO EXT
X7-2t
24Hz
14cm

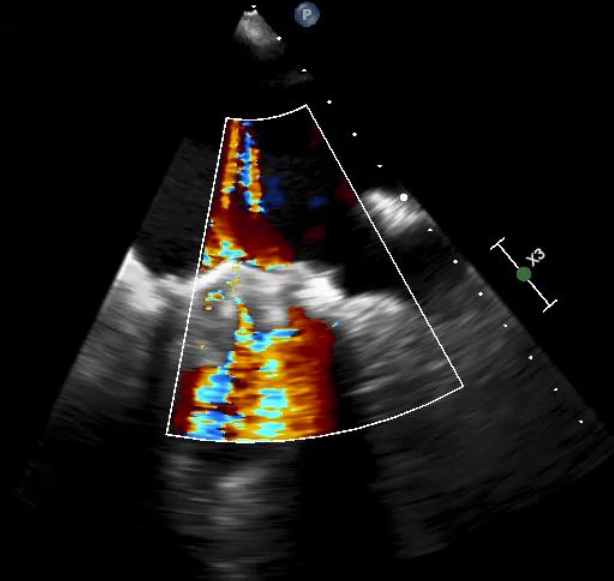
TIS0.6 MI 0.4

CARDIO ETO EXT
X7-2t
9Hz
14cm

Battem. 3D 6

TIS0.6 MI 0.3

2D
61%
C 50
P Arrêt
HGén



M4 M4

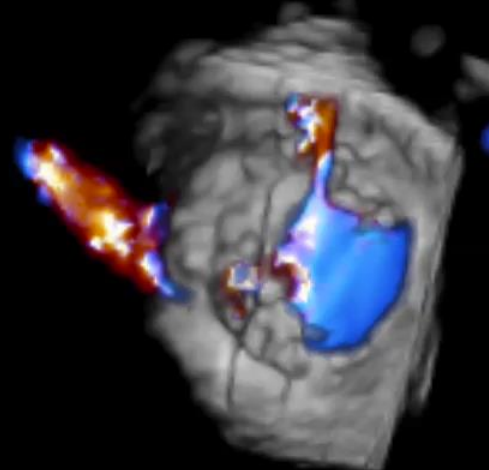
+54.2



-54.2

cm/s

Volume total
2D / 3D
% 71 / 0
C 50 / 0
HGén



M4 M4

+42.4



-42.4

cm/s

Coul
48%
6249Hz
FP 562Hz
4.4MHz

③
P R
2.7 5.4

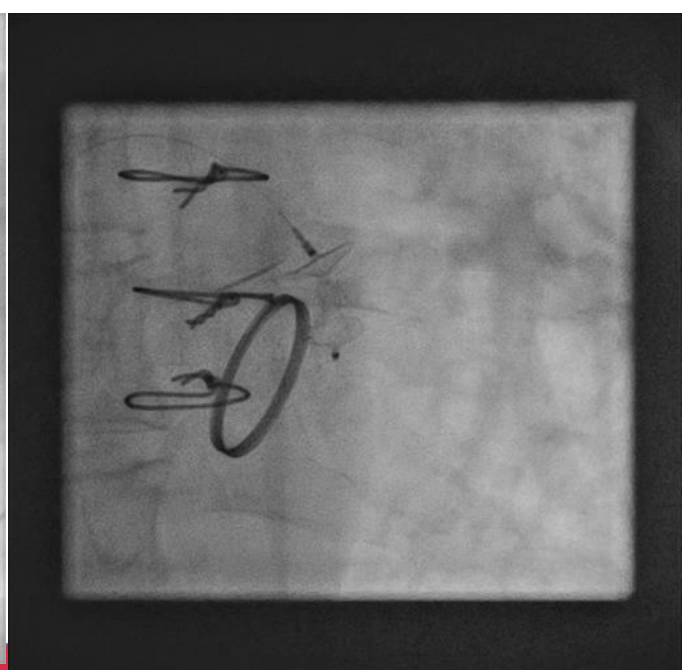
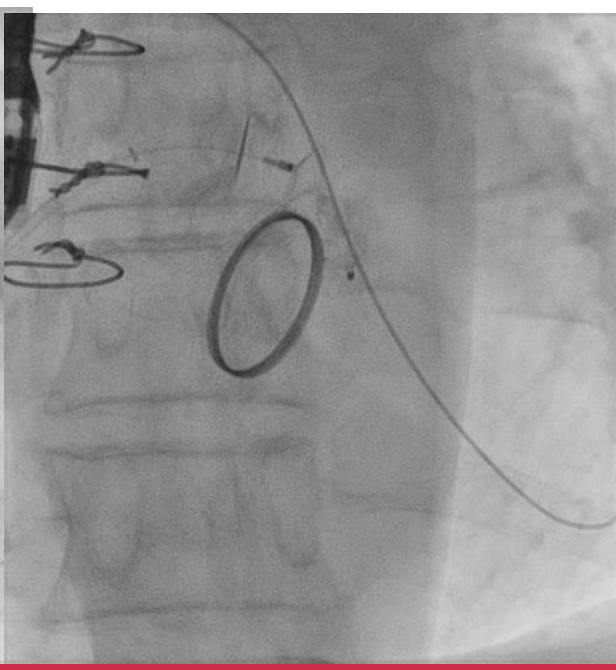
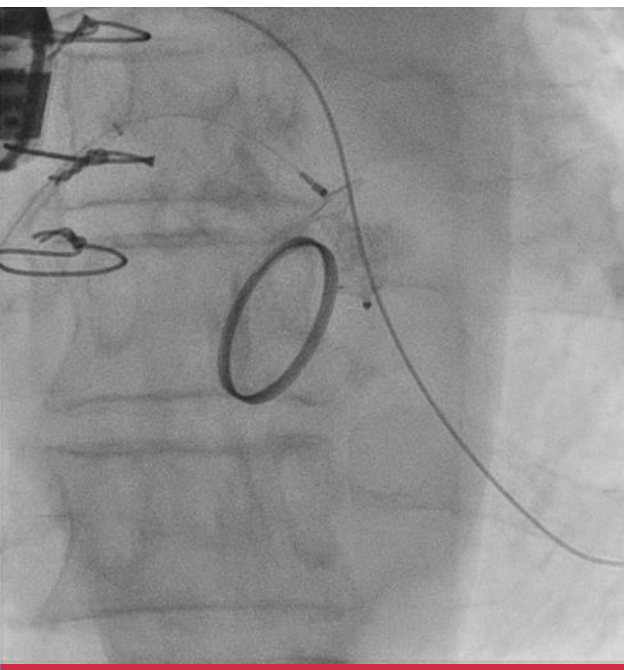
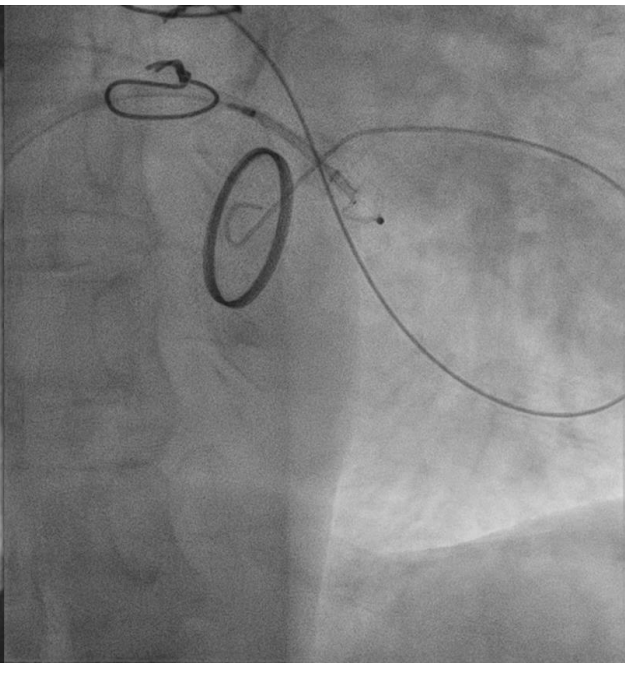
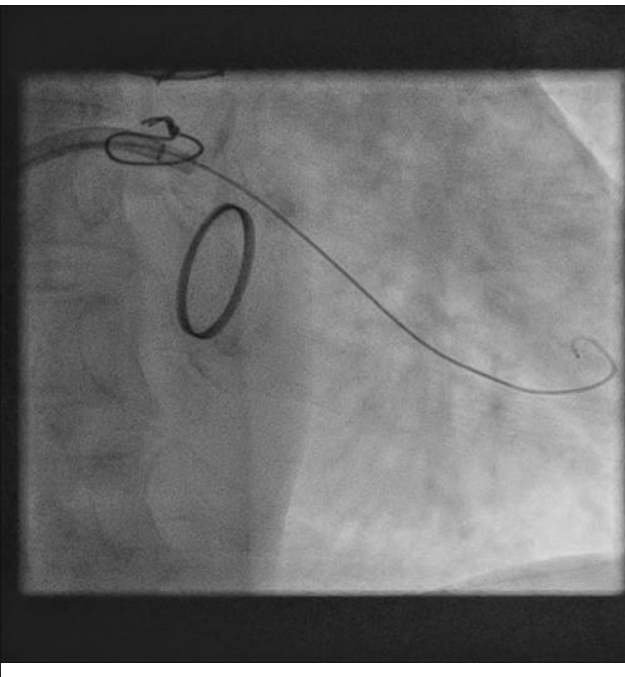
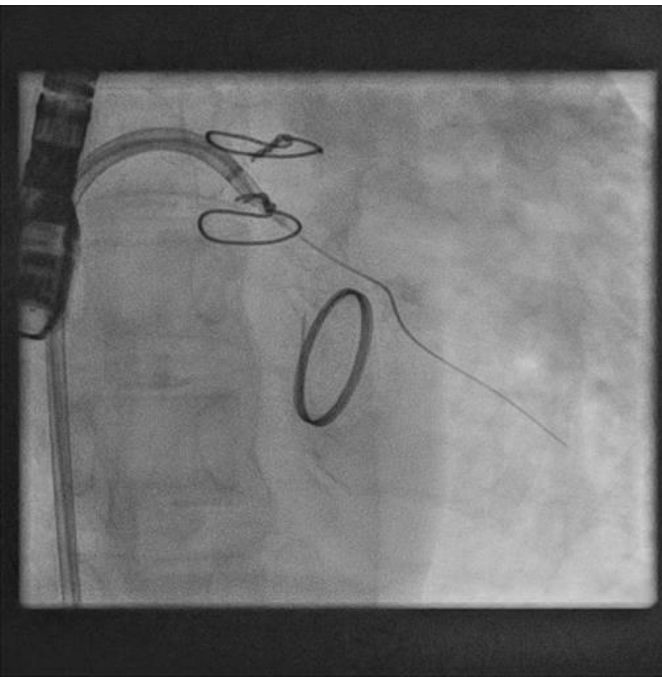
PAT T: 37.0C
TEE T: 39.7C

PAT T: 37.0C
TEE T: 39.4C

115 bpm

Délai 0ms

118 bpm



Evolution

- Favorable, disparition de l'hémolyse, NYHA 2
- Rapport procédure:
 - scopie: 24 min.
 - Air Kerma: 418 mGy
 - PDS: 4325 microGy.m²

Cas plus compliqué, 2 fuites

- Patiente , 1946.,1.55 m, 78 Kg
- ATCD ADK sein G: radio/chimio
- Oct. 2016: RVM mécanique
- Mars 2017: DE stade 3, Hb 9.7 g/l, LDH 350
- 2 fuites, la plus importante latérale, l'autre médiale.
- Plan: Voie TSP, fuite latérale N1, AVP3 12 mm

CARDIO ETO EXT

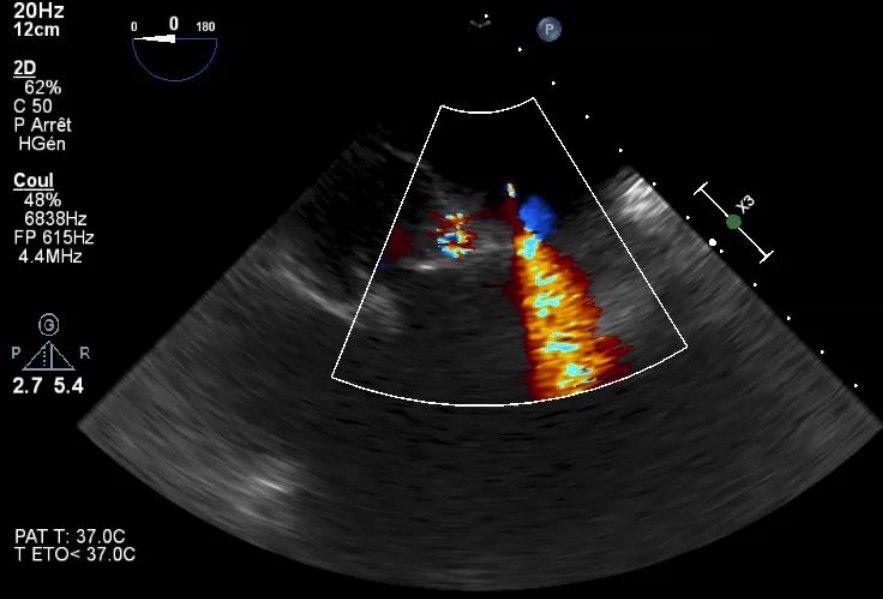
X7-2t
20Hz
12cm

2D
62%
C 50
P Arrêt
HGén

Coul
48%
6838Hz
FP 615Hz
4.4MHz

P R
2.7 5.4

PAT T: 37.0C
T ETO < 37.0C



TISO.5 MI 0.4

M4 M4
+59.3
-59.3
cm/s

CARDIO ETO EXT
X7-2t
17Hz
12cm

2D
62%
C 50
P Arrêt
HGén

Coul
48%
6838Hz
FP 615Hz
4.4MHz

P R
2.7 5.4

PAT T: 37.0C
T ETO: 37.2C

66 bpm

CARDIO ETO EXT

X7-2t
17Hz
12cm

2D
62%
C 50
P Arrêt
HGén

Coul
48%
6838Hz
FP 615Hz
4.4MHz

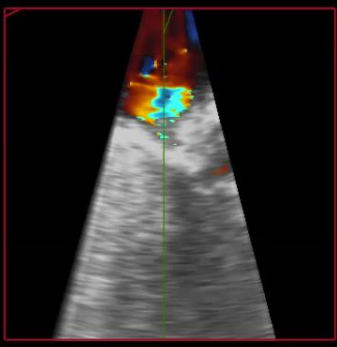
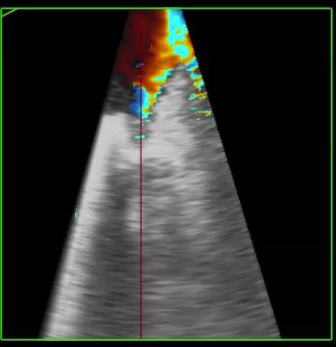
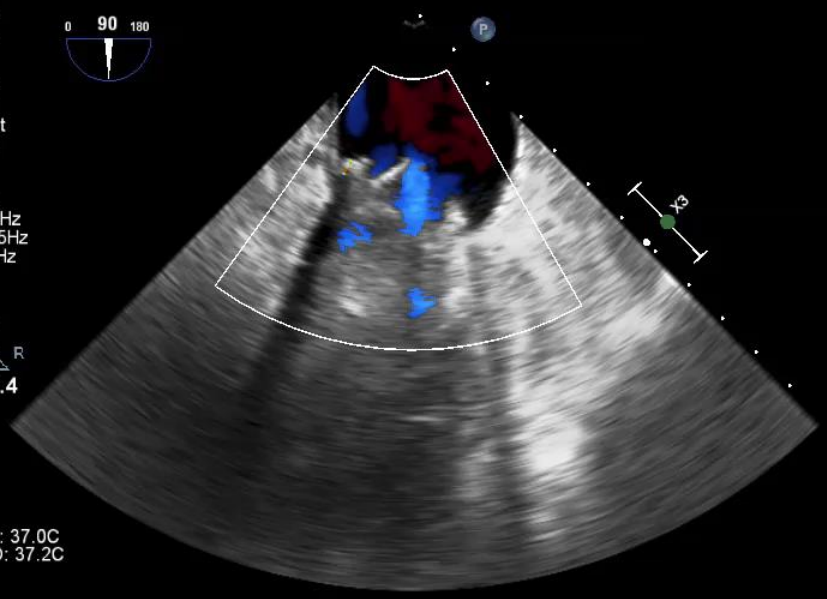
P R
2.7 5.4

PAT T: 37.0C
T ETO: 37.2C

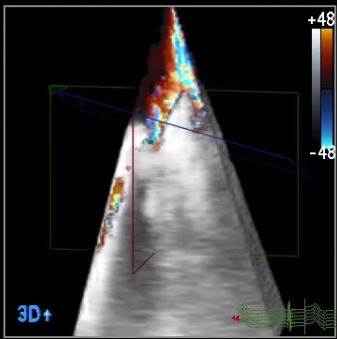
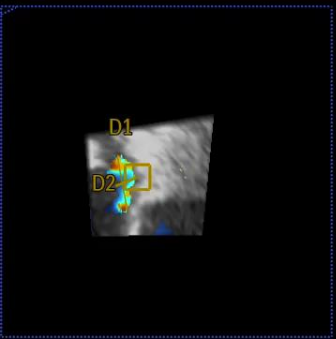
67 bpm

TISO.5 MI 0.7

M4 M4
+59.3
-59.3
cm/s



Distance(s)
D1 1.34 cm
D2 0.58 cm



CARDIO ETO EXT

X7-2t
3Hz
6.9cm

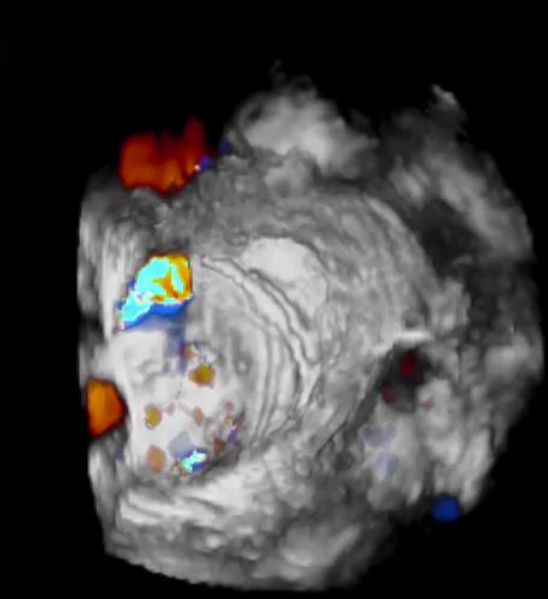
Zoom 3D
2D / 3D
% 79 / 44
C 41 / 30
HGén

Coul
% 54 / 50
6838Hz
FP 683Hz
4.4MHz

PAT T: 37.0C
T ETO: 39.7C

Délai 0ms

Battem. 3D VVélev



TISO.6 MI 0.3

M4 M4
+37.1
-81.5
cm/s

68 bpm

CARDIO ETO EXT

X7-2t
26Hz
12cm

2D
67%
C 50
P Arrêt
HGén

Coul
48%
7370Hz
FP 663Hz
4.4MHz

③
P R
2.7 5.4

PAT T: 37.0C
T ETO: 39.6C

TIS0.5 MI 0.4

M4 M4
+63.9
-63.9
cm/s

③
P R
2.7 5.4

62 bpm

CARDIO ETO EXT

X7-2t
24Hz
12cm

2D
67%
C 50
P Arrêt
HGén

Coul
48%
7370Hz
FP 663Hz
4.4MHz

③
P R
2.7 5.4

PAT T: 37.0C
T ETO: 39.1C

TIS0.6 MI 0.4

M4 M4
+63.9
-63.9
cm/s

③
P R
2.7 5.4

61 bpm

CARDIO ETO EXT

X7-2t
17Hz
12cm

2D
62%
C 50
P Arrêt
HGén

Coul
48%
7726Hz
FP 695Hz
4.4MHz

③
P R
2.7 5.4

PAT T: 37.0C
TEE T: 39.4C

TIS0.6 MI 0.3

M4 M4
+67.0
-67.0
cm/s

③
P R
2.7 5.4

90 bpm

CARDIO ETO EXT

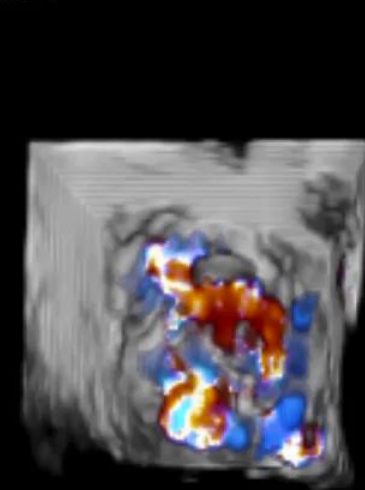
X7-2t
10Hz
12cm

Volume total
2D / 3D
% 71 / 0
C 50 / 0
HGén

Coul
% 48 / 50
5605Hz
FP 560Hz
4.4MHz

PAT T: 37.0C
TEE T: 39.1C

Battem. 3D 6



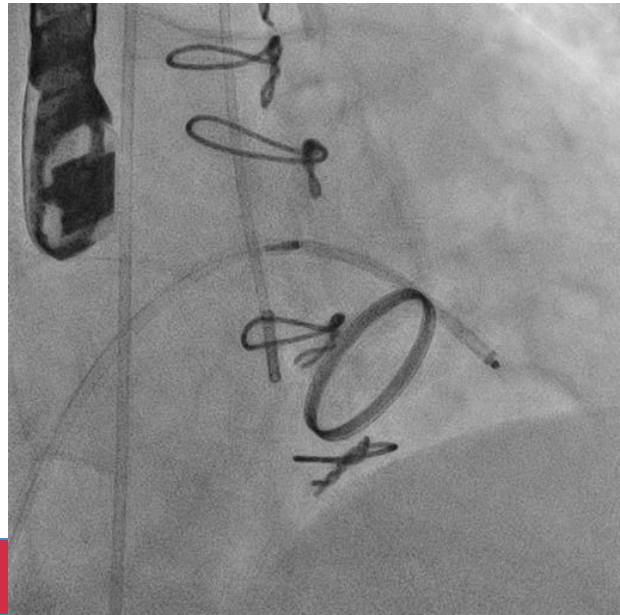
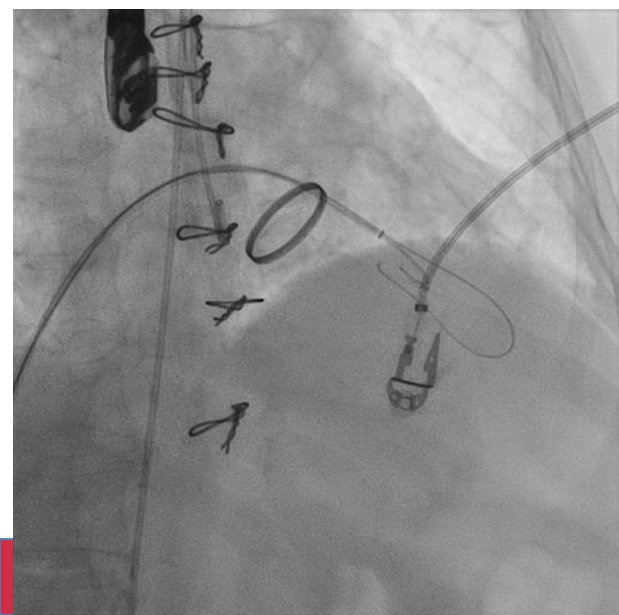
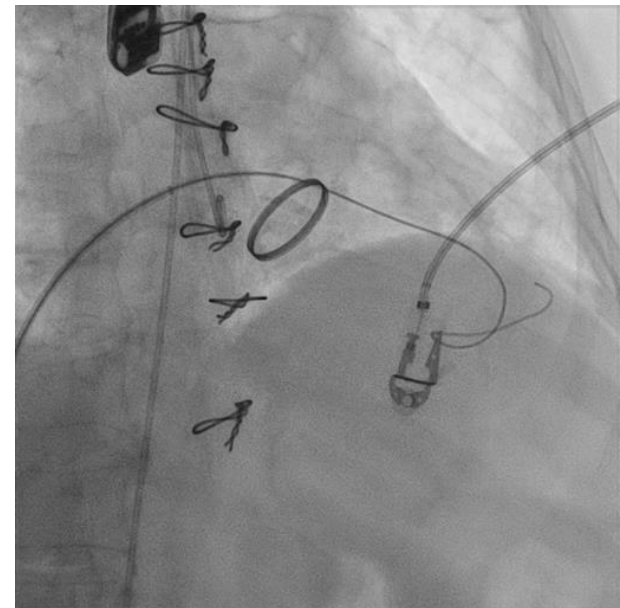
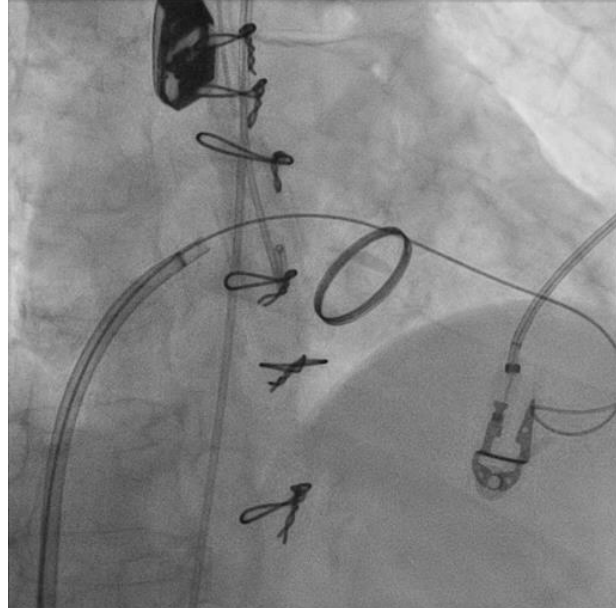
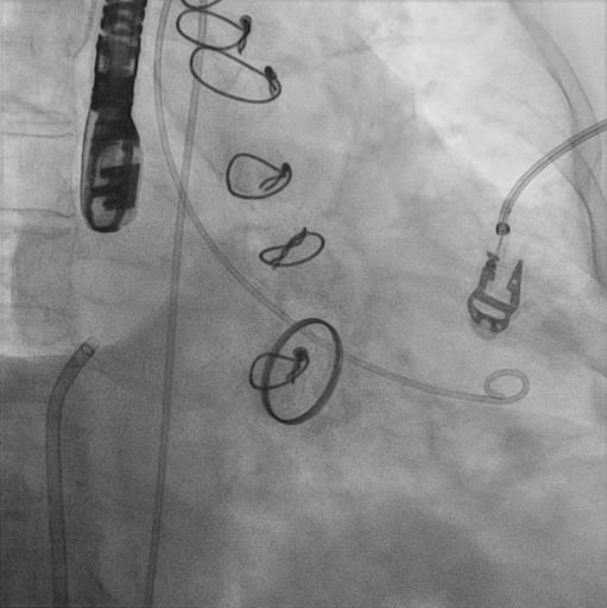
TIS0.6 MI 0.3

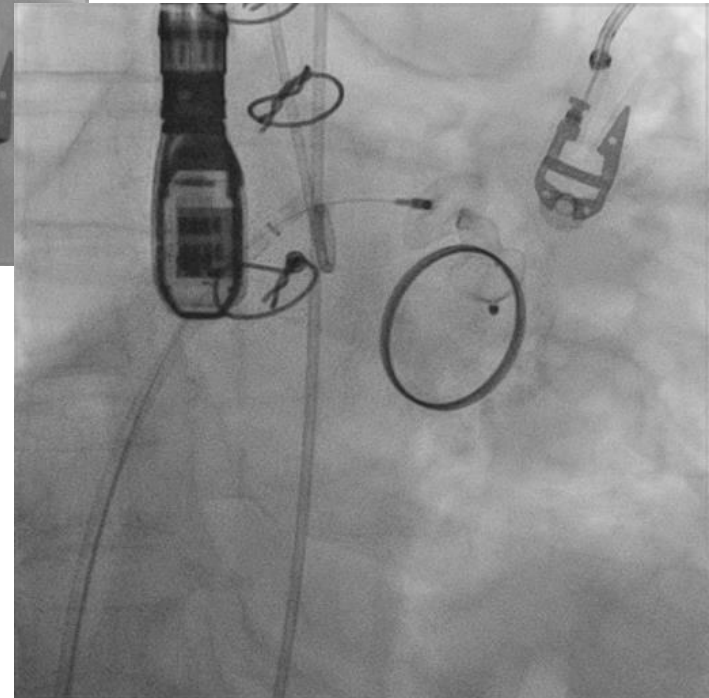
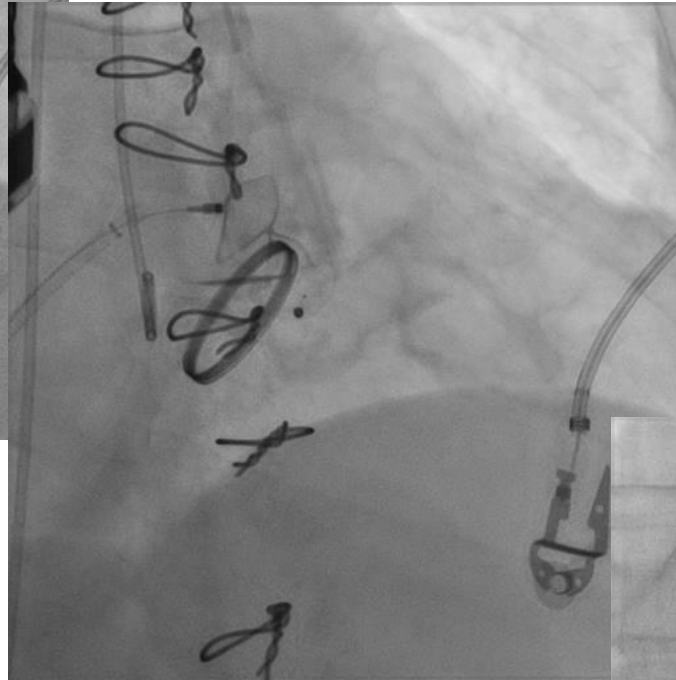
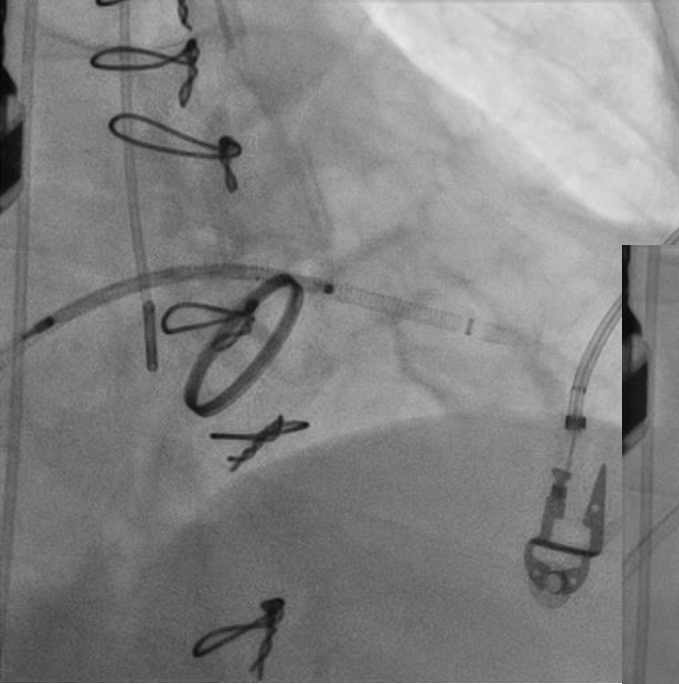
M4 M4
+48.6
-48.6
cm/s

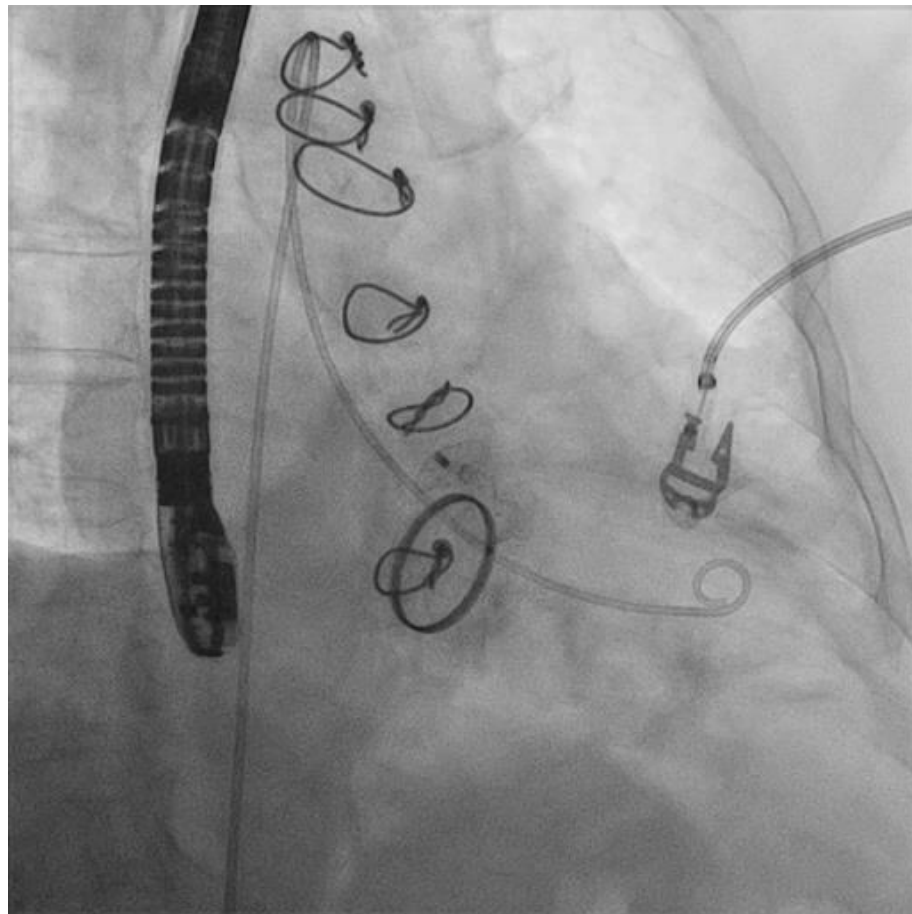
③
P R
2.7 5.4

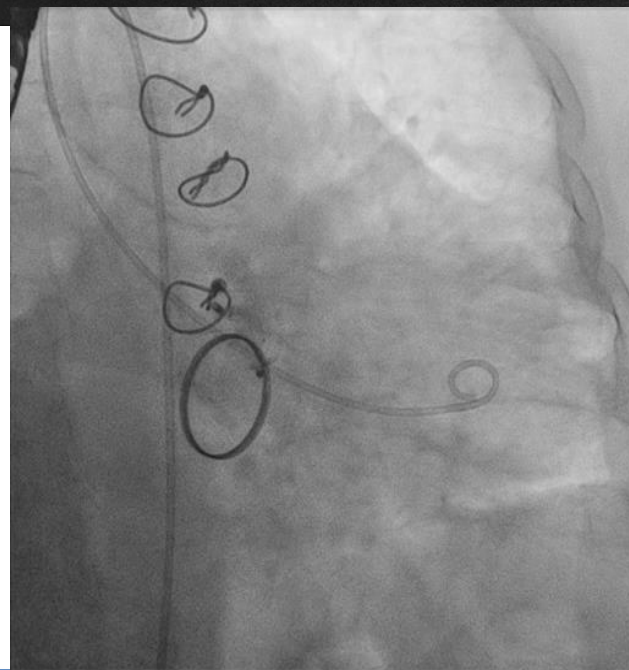
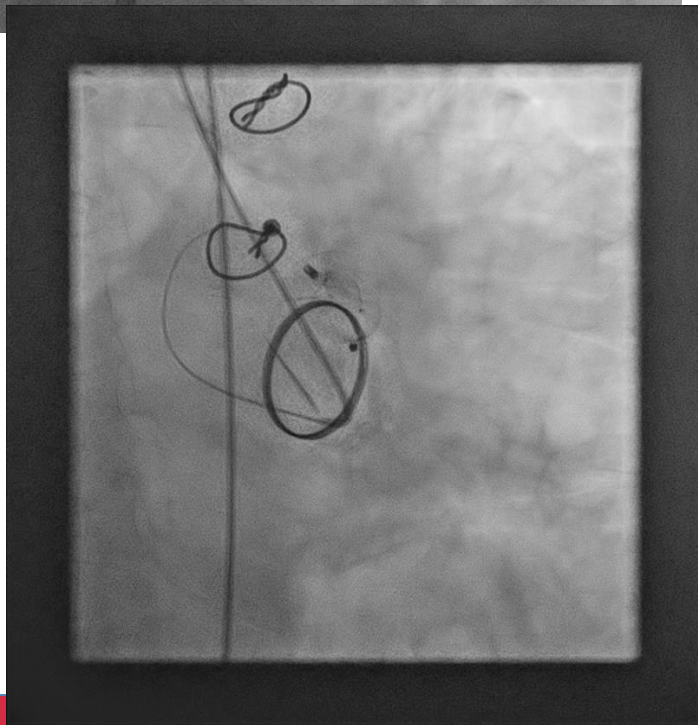
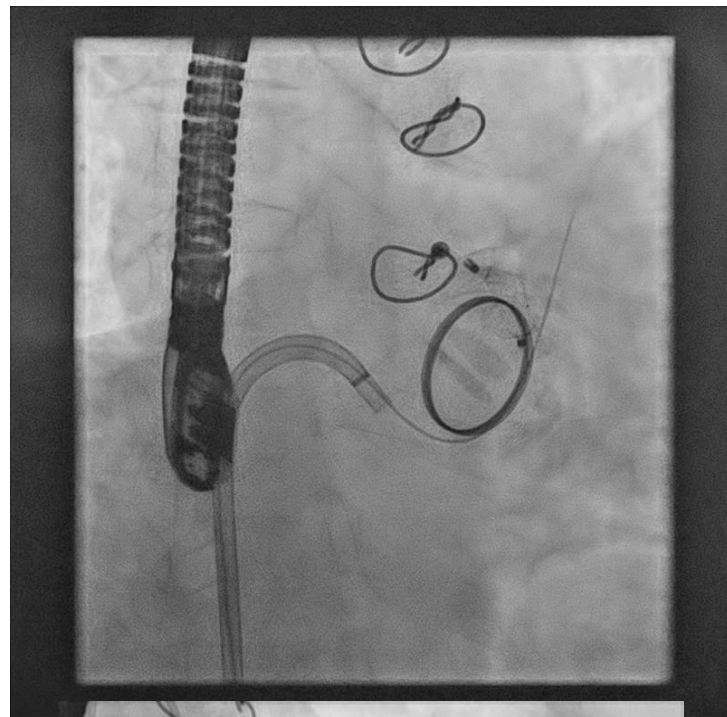
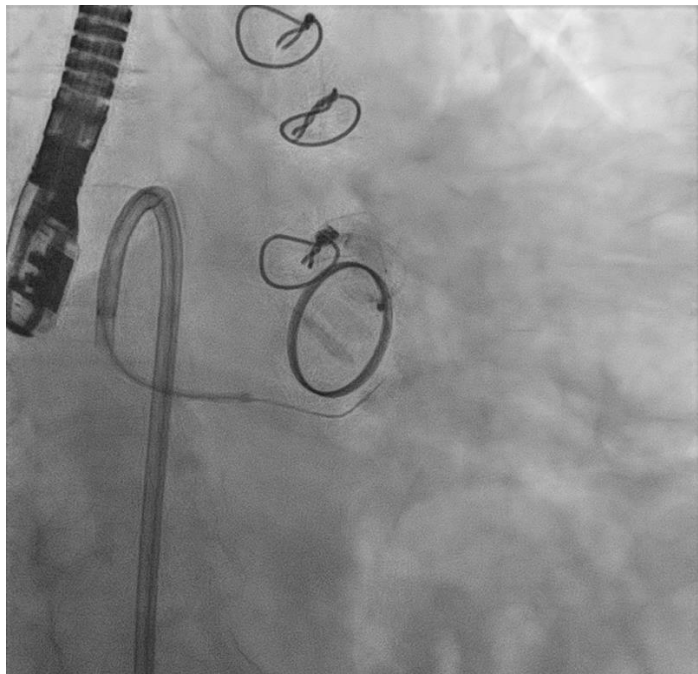
85 bpm

Délai 0ms









Evolution

- Pas d'hémolyse
- D.E stade 2
- Rapport procédure:
 - Scopie: 19 min
 - Air Kerma: 235 mGy
 - PDS: 3685 microGy.m²

Un échec. Quelle raison?

- Patiente 75 ans
- Commissurotomie sous CEC 1975, RVM méca.1994, hémolyse/FPV et chir tridux en janv 2016: RVM bio.
- Sepsis, EI, désinsertion et FPV sévère.
- Hémolyse +++ et insuff.cardiaque, sepsis « guéri »
- ETT, ETO: fuite grade 3, HTAP 80 mm Hg, bon VG

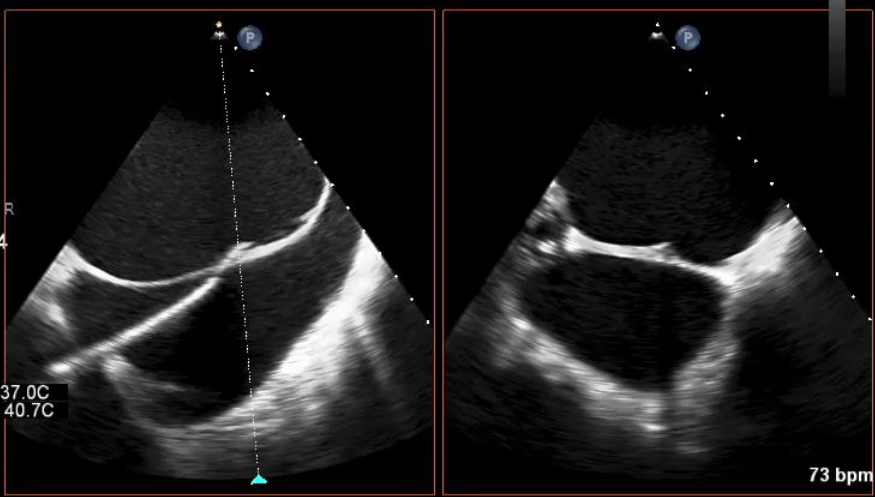
CARDIO ETO EXT

X7-2t
50Hz
16cm

xPlane
61%
61%
50dB
P Arrêt
HGén

③
P R
2.7 5.4

T PAT: 37.0C
T ETO: 40.7C



ITm0.2 IM 0.5

M4

CARDIO ETO EXT

X7-2t
26Hz
11cm

Volume total
2D / 3D
% 50 / 26
C 50 / 0
HGén

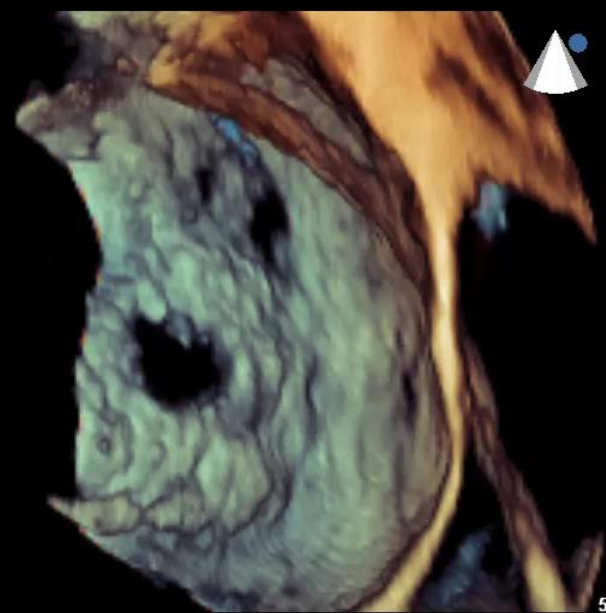
T PAT: 37.0C
T ETO: 39.8C

↓ Délai 0ms



Battem. 3D VVélevQ

M4



58 bpm

CARDIO ETO EXT

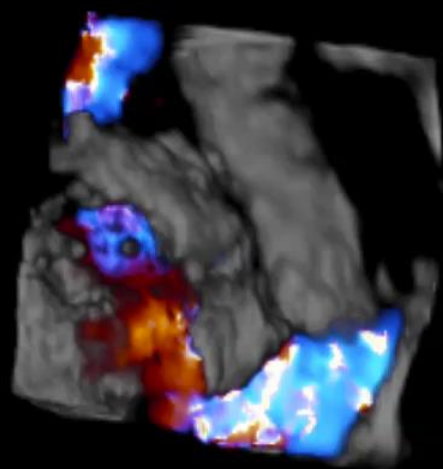
X7-2t
8Hz
11cm

Volume total
2D / 3D
% 80 / 0
C 50 / 0
HGén

Coul
% 54 / 50
6035Hz
FP 603Hz
4.4MHz

T PAT: 37.0C
T ETO: 39.4C

Battem. 3D VVélevQ



ITm0.6 IM 0.3

M4 M4



CARDIO ETO EXT

X7-2t
16Hz
16cm

2D
66%
C 50
P Arrêt
HGén

Coul
48%
6838Hz
FP 615Hz
4.4MHz

T PAT: 37.0C
T ETO: 39.3C

③
P R
2.7 5.4



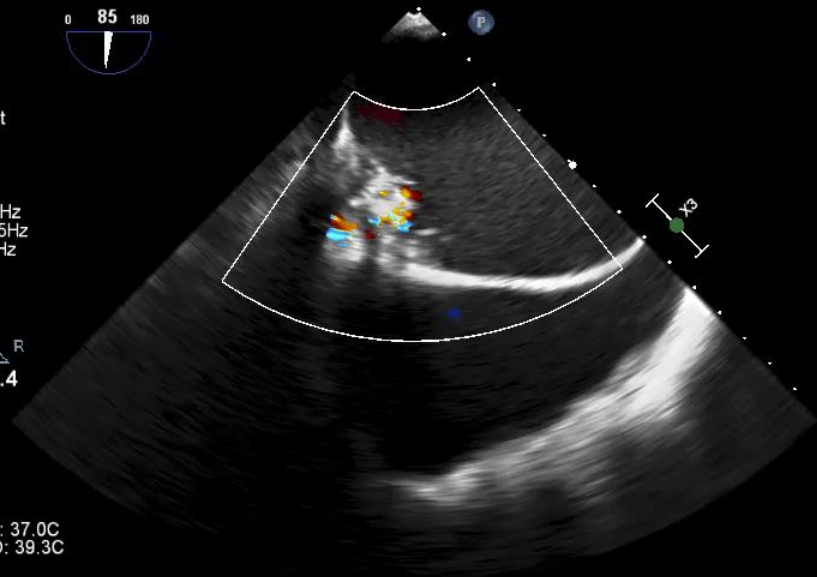
69 bpm

↓ Délai 0ms

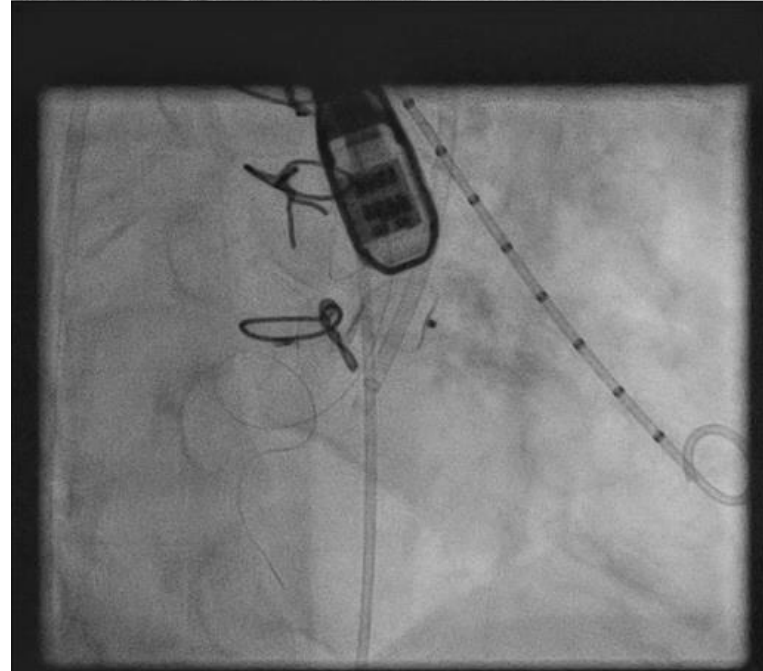
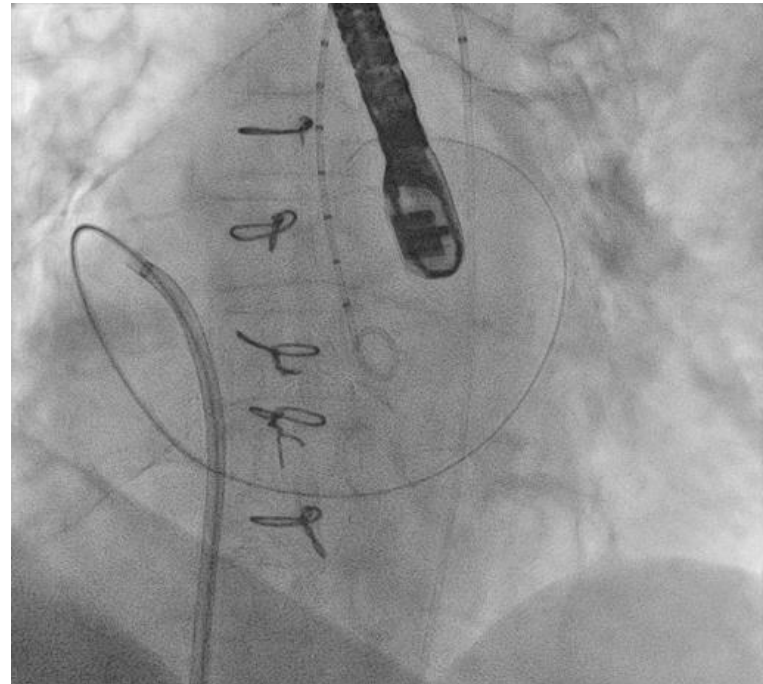
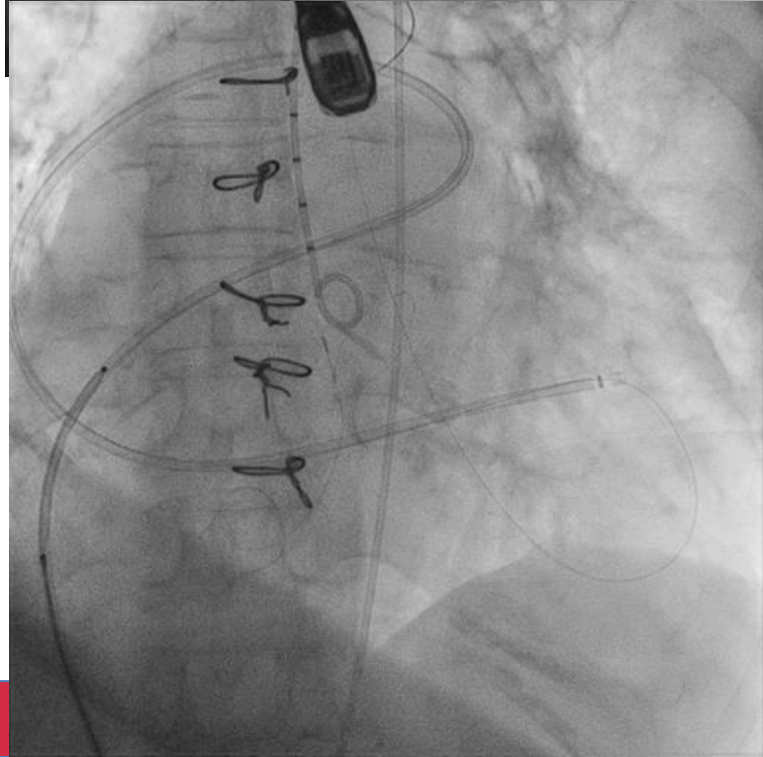
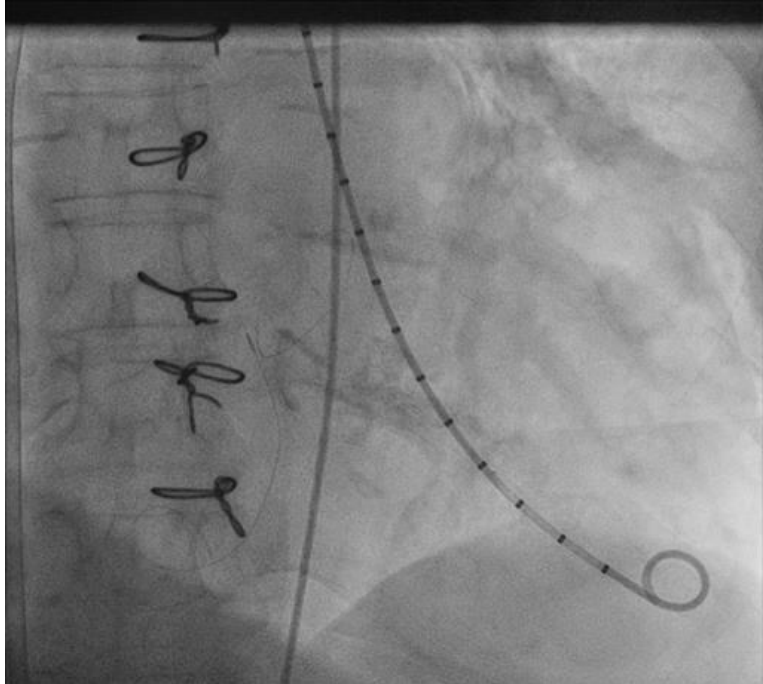
ITm0.2 IM 0.8

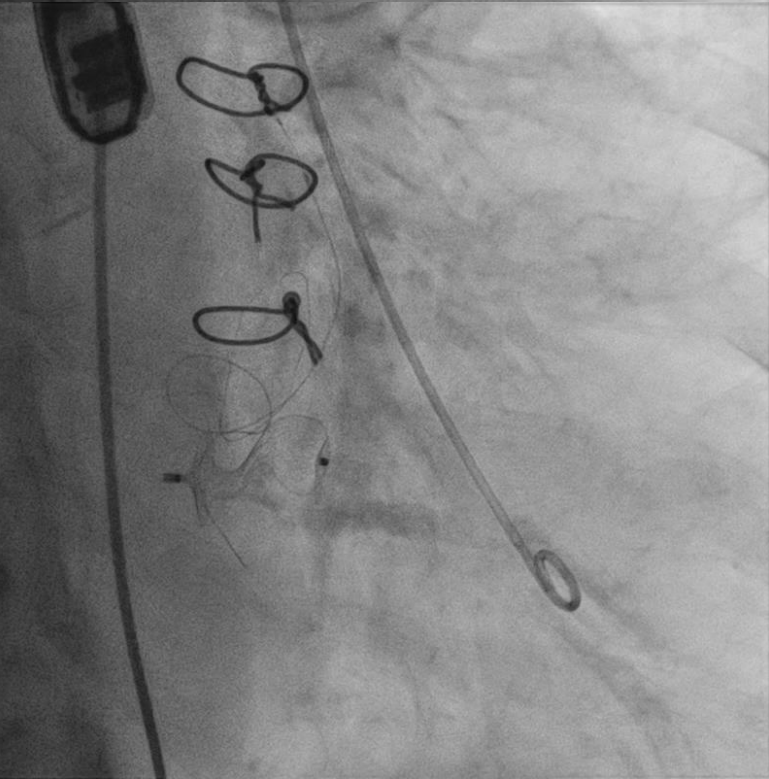
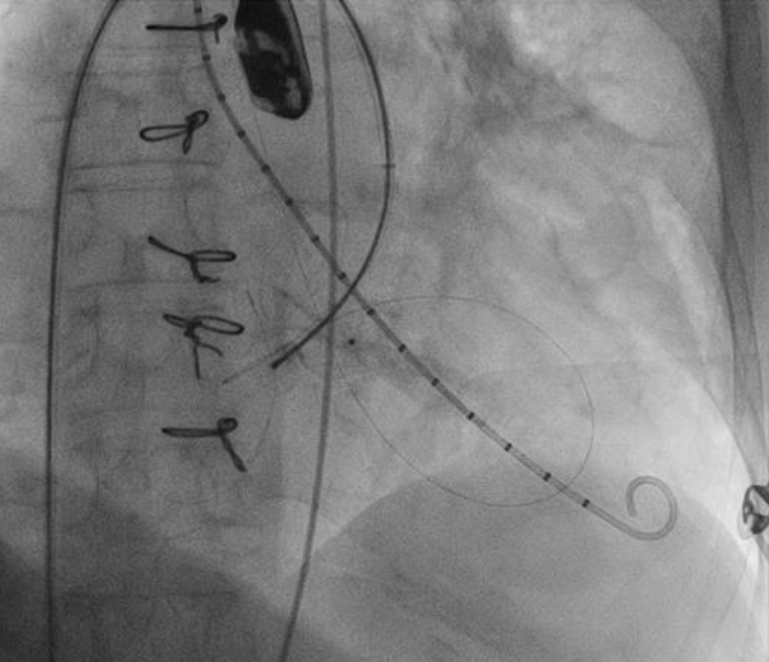
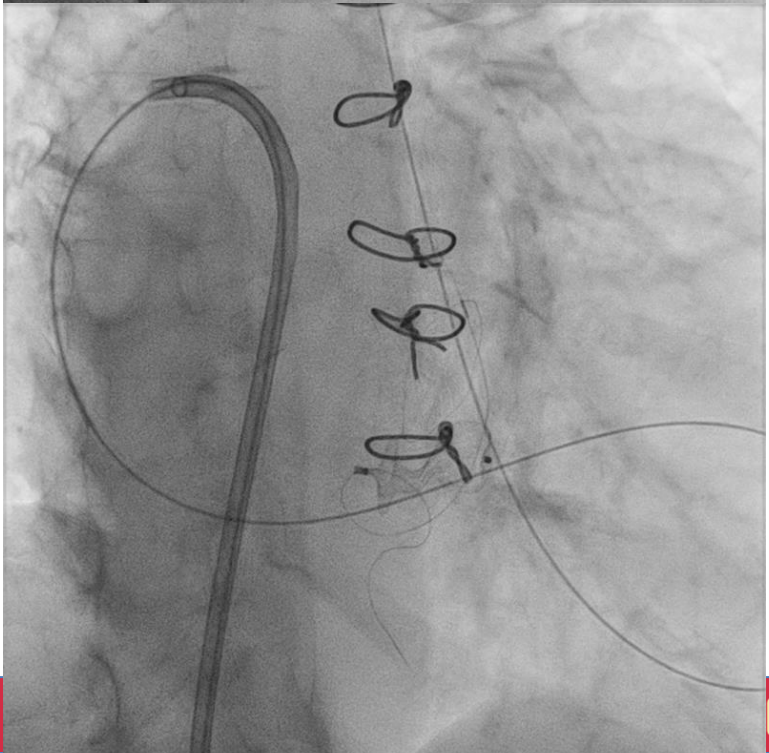
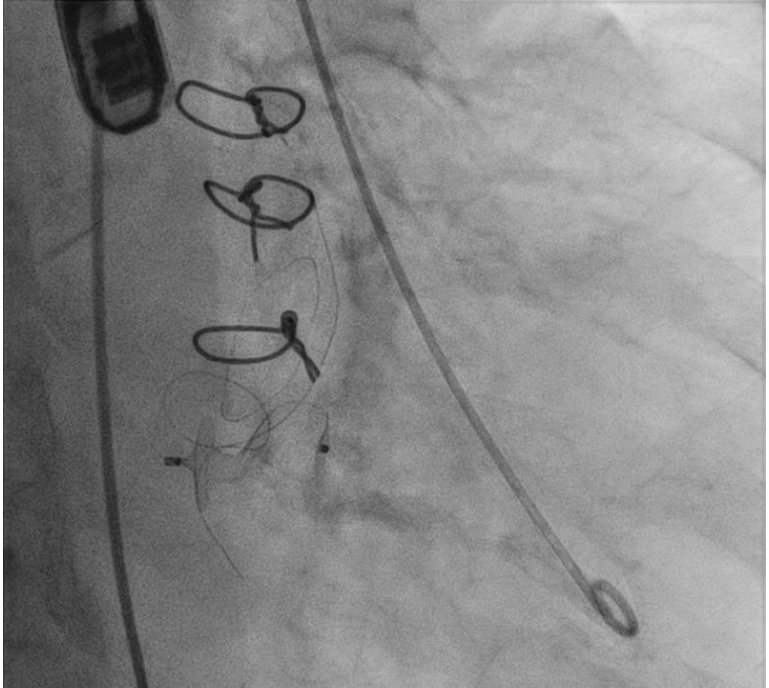
ITm0.6 IM 0.4

M4 M4



56 bpm





évolution

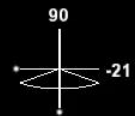
- Hémostase persistante, sévère.
- Transfusions bimensuelles....
- Reprise chirurgicale 19/01/2017, 4^{ème} CEC
- Euroscore 2: 47%
- 3 points tressés sur attelle de téflon, clampage 53 min, CEC 71 min
- Suivi: bonne évolution clinique, disparition de la fuite, guérison de l'hémolyse.

Une conversion TSP/TA

- Patient né en 1959
- Hodgkin radiothérapé à 20 ans
- RVA bio en 2003
- RVM bio en mars 2016
- Evolution défavorable: insuffisance cardiaque gauche, FA et thrombus de l'auricule.
- découverte de Fuite paraprothétique mitrale
- Plan: F.A.G et fermeture paraP.

Echo adulte
X7-2t
89Hz
6.0cm

xPlane
60%
60%
50dB
P Arrêt
Gen



TIS0.1 MI 0.5

M4



PAT T: 37.0C
TEE T: 38.0C

60 bpm

Echo adulte
X7-2t
13Hz
4.1cm

Volume total

2D / 3D
% 72 / 19
C 50 / 0
Gen

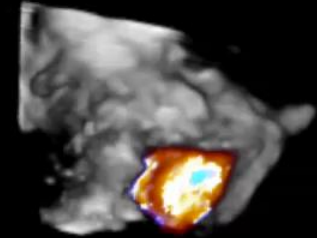
Coul
% 40 / 50
6838Hz
FP 683Hz
4.4MHz



PAT T: 37.0C
TEE T: 38.2C

Délai 0ms

Battem. 3D 6



TIS0.5 MI 0.7

M4 M4

+59.3

-59.3

60 bpm

Echo adulte
X7-2t
23Hz
4.9cm

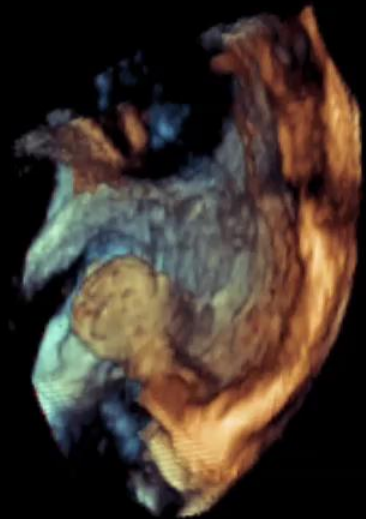
Zoom 3D
2D / 3D
% 56 / 35
C 39 / 30
Gen



Battem. 3D VVélev

TIS0.1 MI 0.4

M4



PAT T: 37.0C
TEE T: 37.6C

Délai 0ms

60 bpm

Echo adulte
X7-2t
23Hz
5.5cm

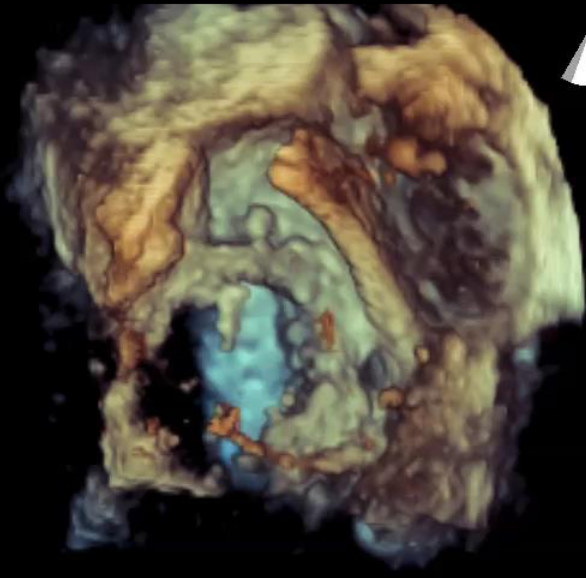
Zoom 3D
2D / 3D
% 56 / 0
C 50 / 0
Gen



Battem. 3D VVélev

TIS0.1 MI 0.4

M4



PAT T: 37.0C
TEE T: 37.1C

Délai 0ms

60 bpm

Echo adulte

X7-2t
28Hz
6.0cm

2D
65%
C 50
P Arrêt
Gén

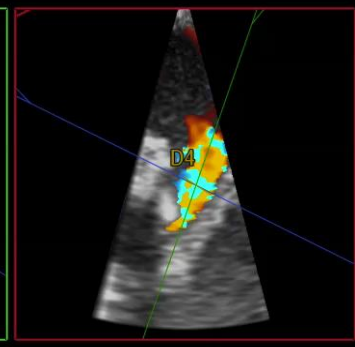
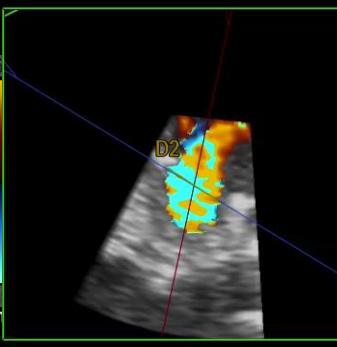
Coul
40%
6838Hz
FP 615Hz
4.4MHz

G
P R

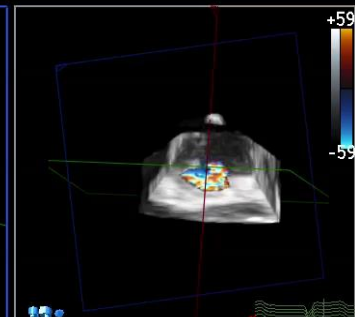
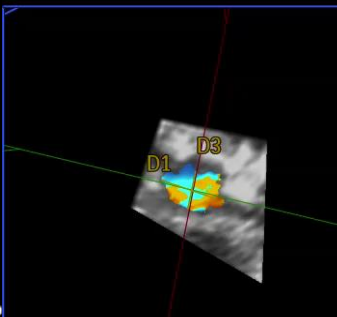
PAT T: 37.0C
TEE T: 38.8C

TIS0.5 MI 0.6

M4
+5
-5
cm



Distance(s)	
D1	0.72 cm
D2	0.73 cm
D3	0.49 cm
D4	0.41 cm



60 bp

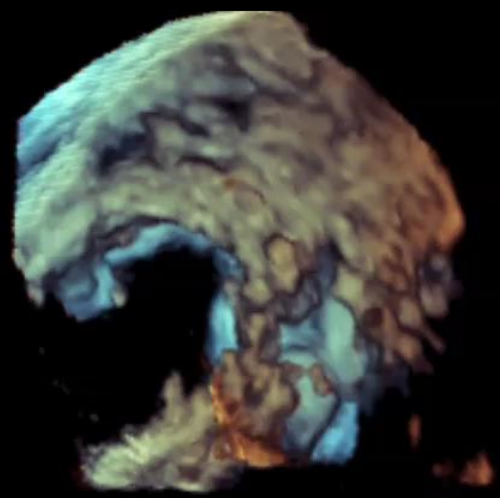
Echo adulte

X7-2t
28Hz
4.4cm

Zoom 3D
2D / 3D
% 48 / 0
C 50 / 0
Gén

PAT T: 37.0C
TEE T: 37.1C

Battem. 3D VVélev



TIS0.1 MI 0.4

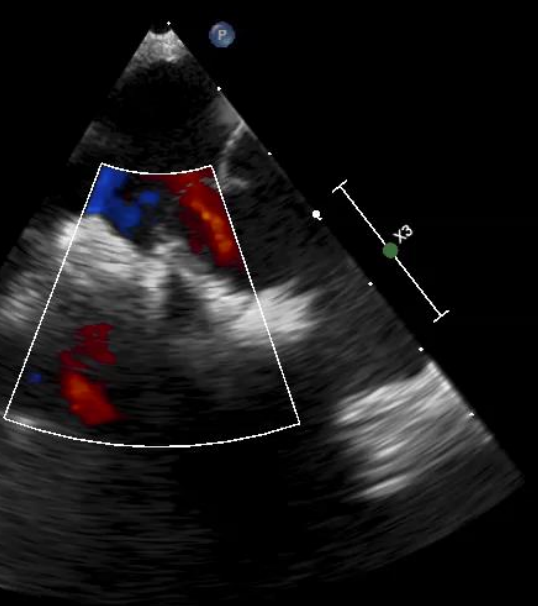
M4
+5
-5
cm

Echo adulte
X7-2t
25Hz
7.1cm
2D
54%
C 50
P Arrêt
Gén
Coul
40%
6838Hz
FP 615Hz
4.4MHz

G
P R

PAT T: 37.0C
TEE T: 37.6C

0 0 180

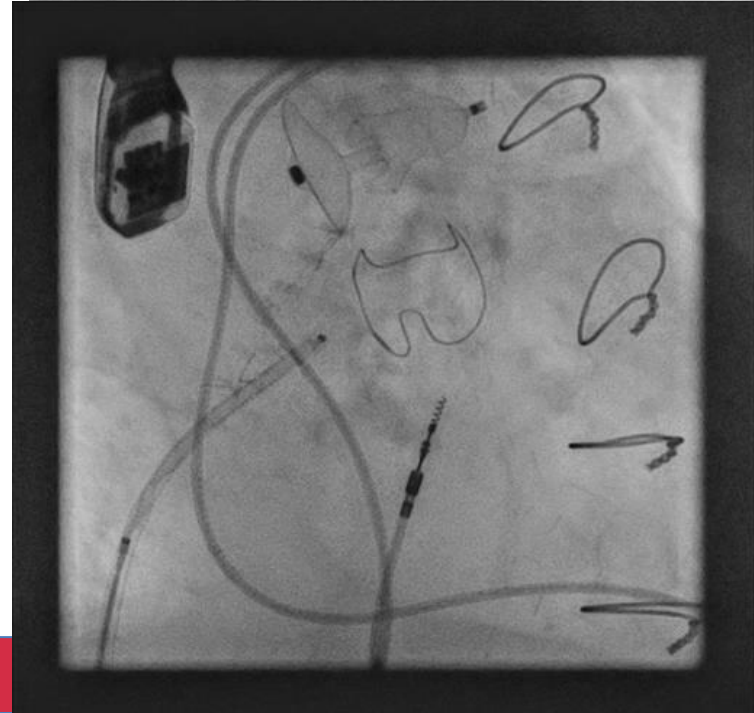
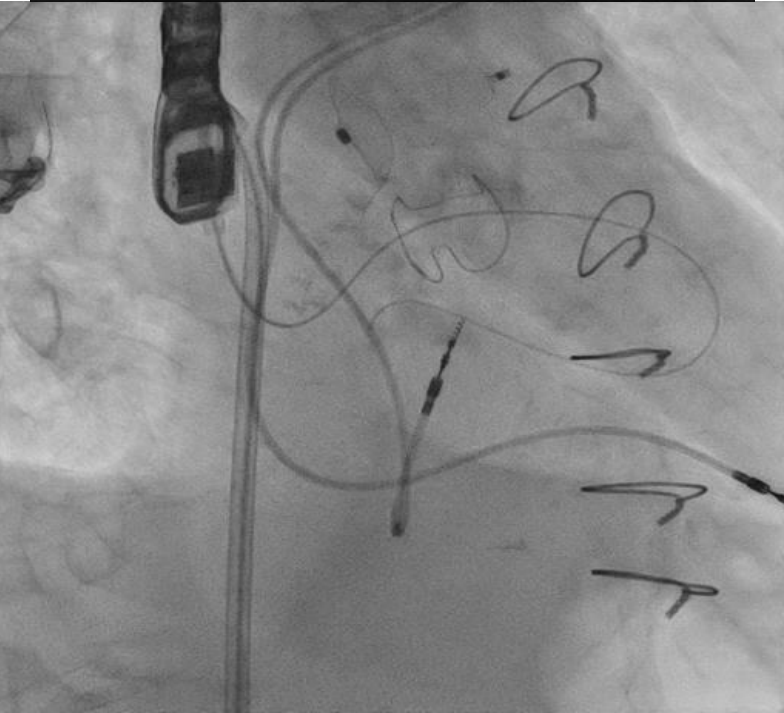
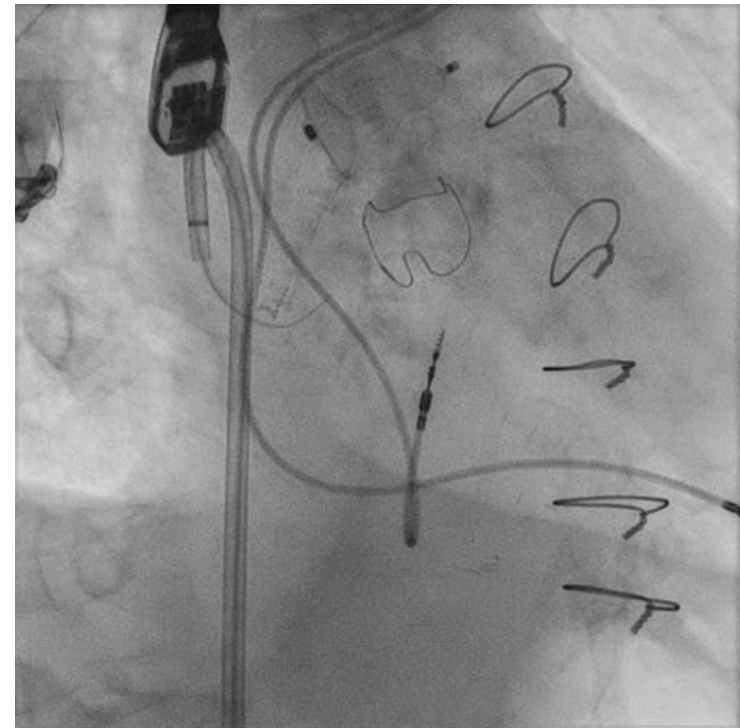
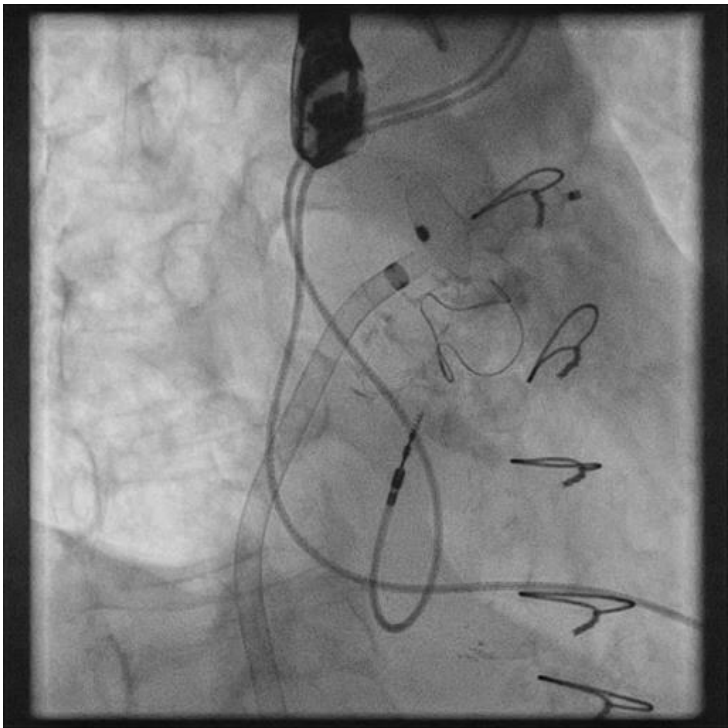


M4 M4
+59.3
-59.3
cm/s

60 bp

60 bpm

Délai 0ms



CARDIO ECG EXTERNE

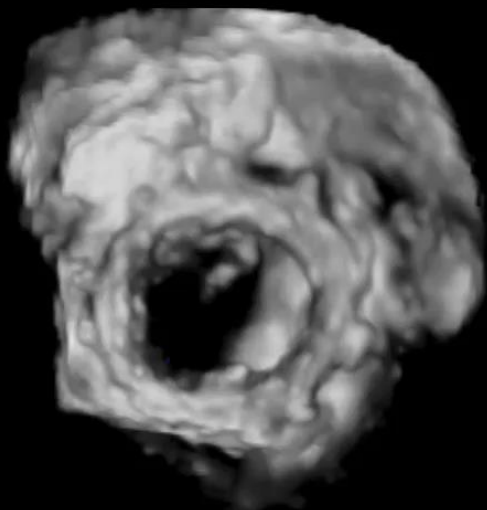
Battem. 3D VVélev

TIS0.6 MI 0.7

X7-2t
8Hz
3.9cm

Zoom 3D
2D / 3D
% 59 / 30
C 50 / 30
Gén

Coul
% 53 / 50
10656Hz
FP1065Hz
4.4MHz



PAT T: 37.0C
TEE T: 39.1C

Délai 0ms

60 bpm

CARDIO ECG EXTERNE

Battem. 3D 6

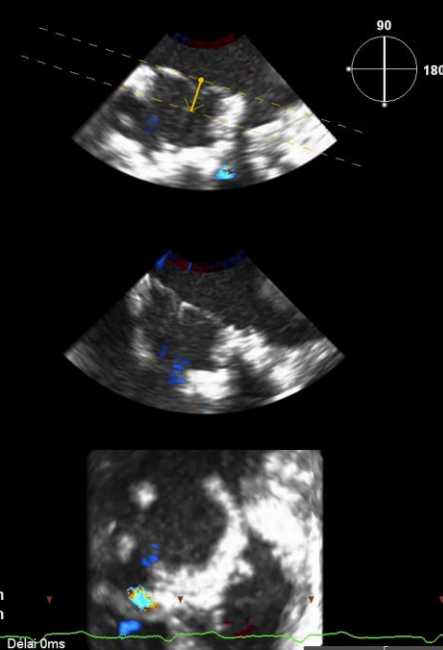
ITm0.6

IM 0.7

X7-2t
9Hz
3.9cm

Zoom 3D
2D / 3D
% 86 / 32
C 50 / 30
Gén

Coul
% 47 / 50
10656Hz
FP1065Hz
4.4MHz



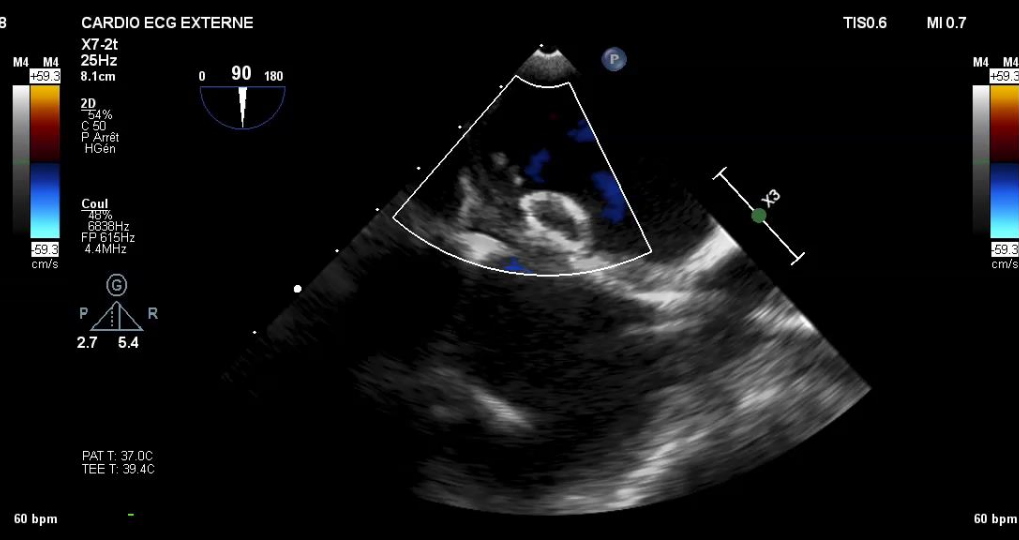
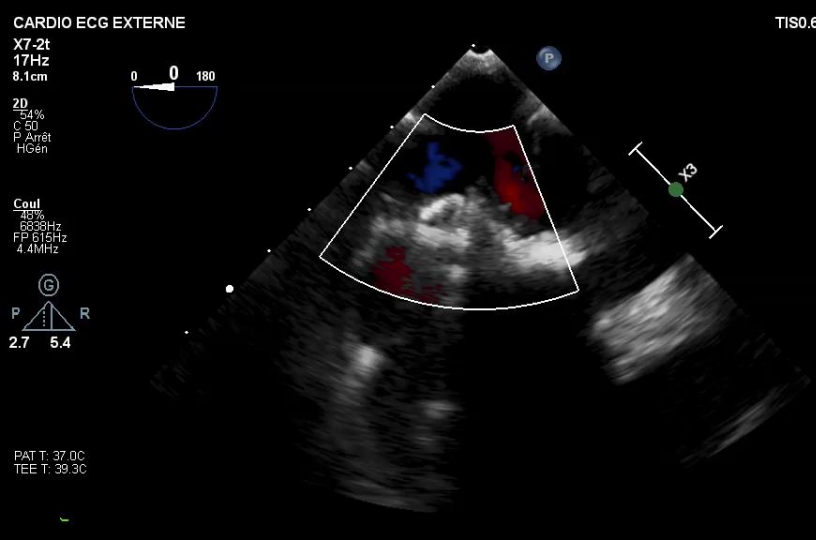
T PAT: 37.0C
T ETO: 37.0C
Dist 0.628 cm
Dist 0.315 cm

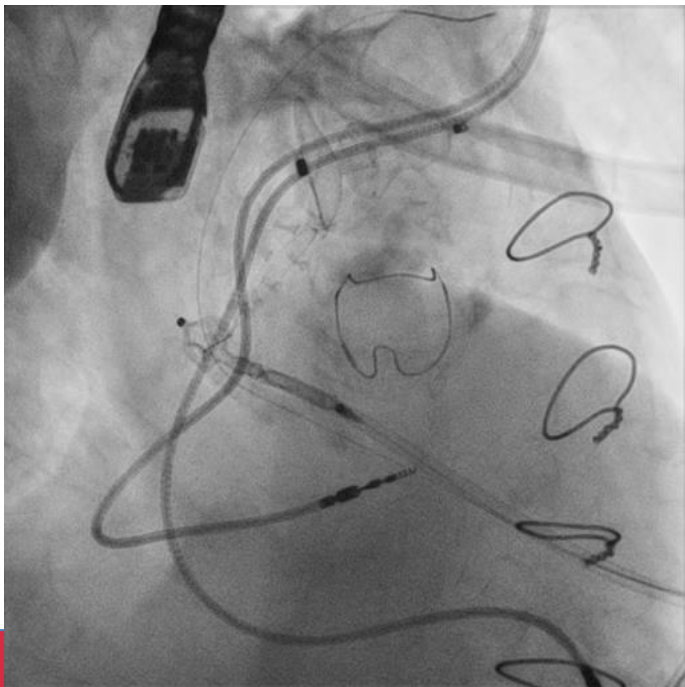
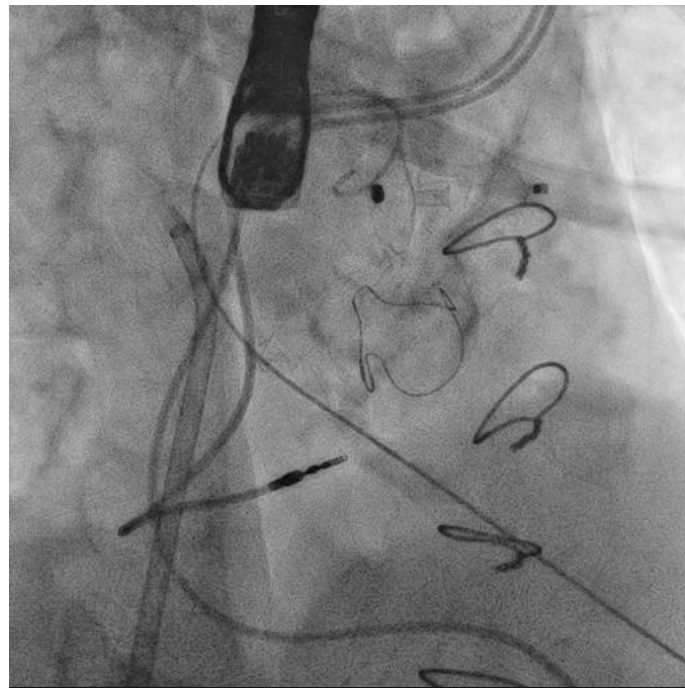
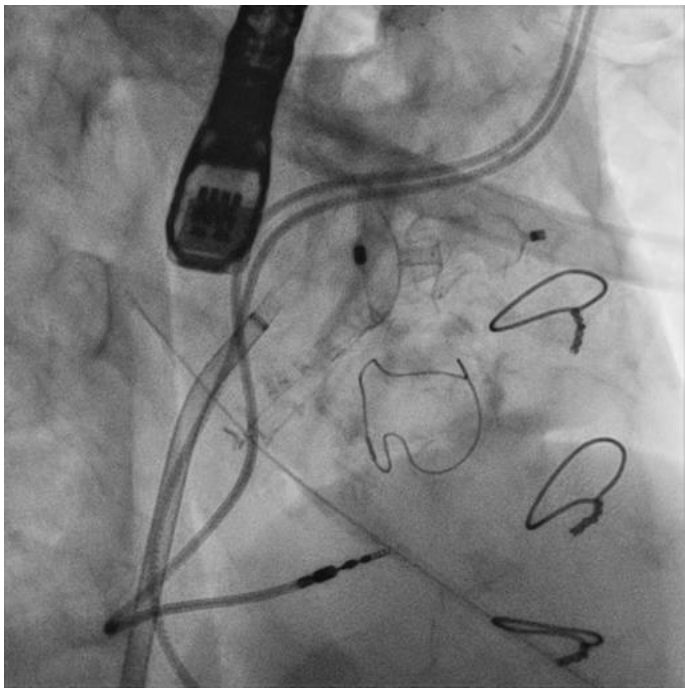
Délai 0ms

F#123

50bpm







Conclusions (1)

- Voie antérograde par TSP le plus souvent possible
- Si on fait « un rail », recouvrir le guide avec une sonde 4 ou 5 Fr
- Accès transeptal : POST et plus ou moins SUP selon le siège de la fuite
- ANTICIPER les cas difficiles (situation, trajet, calcifications)
- ANTICIPER le risque d'interférence avec les ailettes (valve monodisque, trajet oblique, large fuite...) et le choix du dispositif

Conclusions (2)

- Pas de technique « miracle »
- Faire ce que l'on pratique le plus souvent, mais essor de la voie transeptale.
- Matériel « d'approche » correct mais dispositifs trop imparfaits, non dédiés (hors Occlutech)
- Balance à trouver entre taille des gaines d'accès et taille des dispositifs
- Essayer d'être le plus complet possible en une fois
- Succès technique: 75/85%, succès clinique: 65/75%



MERCI DE VOTRE ATTENTION



Outcomes and predictors of success and complications for paravalvular leak closure: an analysis of the Spanish real-world paravalvular LEaks closure (HOLE) registry

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1. Hospitales Universitarios Montepíncipe and Moncloa, Madrid, Spain; 2. Hospital Santa Creu y San Pau, Barcelona, Spain; 3. Hospital Clínico San Carlos, Madrid, Spain; 4. Hospital Gregorio Marañón, Madrid, Spain; 5. Hospital Vall D'Hebron, Barcelona, Spain; 6. Hospital la Paz, Madrid, Spain; 7. Hospital Universitario Donostia, San Sebastian, Spain; 8. Hospital Puerta del Mar, Cadiz, Spain; 9. Hospital Meixoeiro, Vigo, Spain; 10. Hospital Puerta de Hierro, Madrid, Spain; 11. Hospital Universitario de Cruces, Baracaldo, Spain; 12. Hospital Virgen de la Victoria, Malaga, Spain; 13. Complejo Hospitalario Universitario de Granada, Granada, Spain; 14. Clínica Universitaria de Navarra, Pamplona, Spain; 15. Hospital Clinic de Barcelona, Barcelona, Spain; 16. Hospital General Universitario Valencia, Valencia, Spain; 17. Hospital Virgen de la Arrixaca, Murcia, Spain; 18. Hospital Universitario da A Coruña, A Coruña, Spain; 19. Hospital Juan Ramón Jiménez, Huelva, Spain; 20. Hospital Universitario de Salamanca, IBSAL, Salamanca, Spain

This paper also includes supplementary data published online at: http://www.pcronline.com/eurointervention/113th_issue/320

Abstract

Aims: The aim of the study was to assess the safety and efficacy of percutaneous closure of paravalvular prosthetic leak (PVL) and to identify the predictors of procedural success and early complications.

Methods and results: A total of 514 first-attempt percutaneous PVL closure in 469 patients were included at 19 centres. Technical and procedural success was achieved in 86.6% and 73.2% of the patients, respectively. In multivariate analysis, the independent predictors for procedural success in mitral lesions were the type of device used (AMPLATZER AVP III vs. others, HR 2.68 [1.29-5.54], $p=0.008$) and the number of procedures performed at the centre (top quartile vs. others, HR 1.93 [1.051-3.53], $p=0.03$). For aortic leaks the only predictor of procedural success was the leak size (≥ 10 mm vs. < 10 mm, HR 3.077 [1.13-8.33], $p=0.027$). The overall major adverse events rate (death or emergency surgery or stroke) at 30 days was 5.6%; the only predictor for combined adverse events was New York Heart Association functional Class IV (HR 4.2 [1.42-12.34], $p=0.009$).

Conclusions: Percutaneous closure of PVL can be performed with a reasonable rate of procedural success and a low rate of major complications. The type of device used, the accumulated experience and the leak size are predictors of procedural success.

2/3 PVL Mitrales, plus de 90% par transeptal et souvent franchissement rétrograde

Fuite paraprothétique mitrale

Quelles techniques?

DEFINIR et ANALYSER

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THE PRESENT AND FUTURE

PVLARC Committe

STATE-OF-THE-ART REVIEW

Clinical Trial Principles and Endpoint Definitions for Paravalvular Leaks in Surgical Prosthesis



An Expert Statement

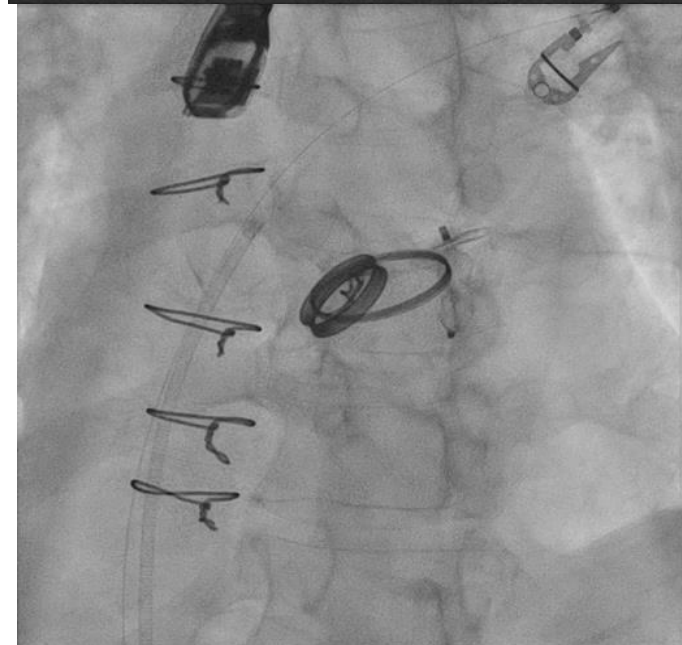
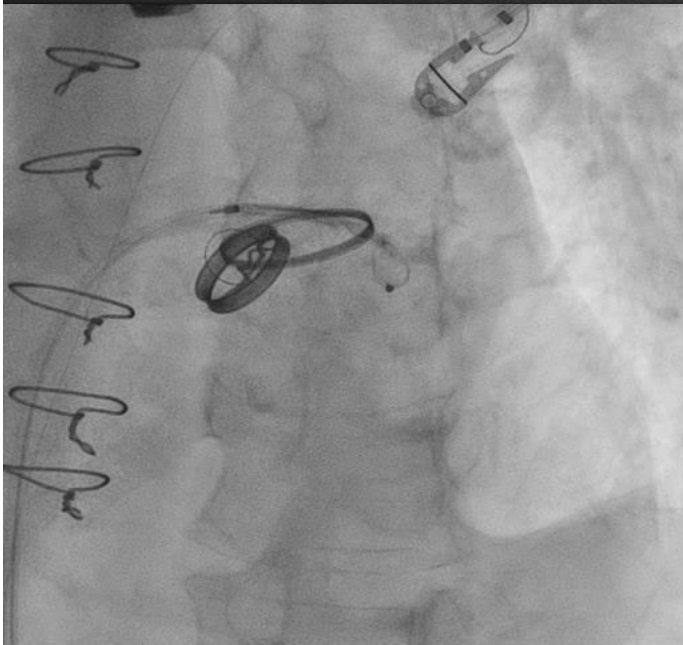
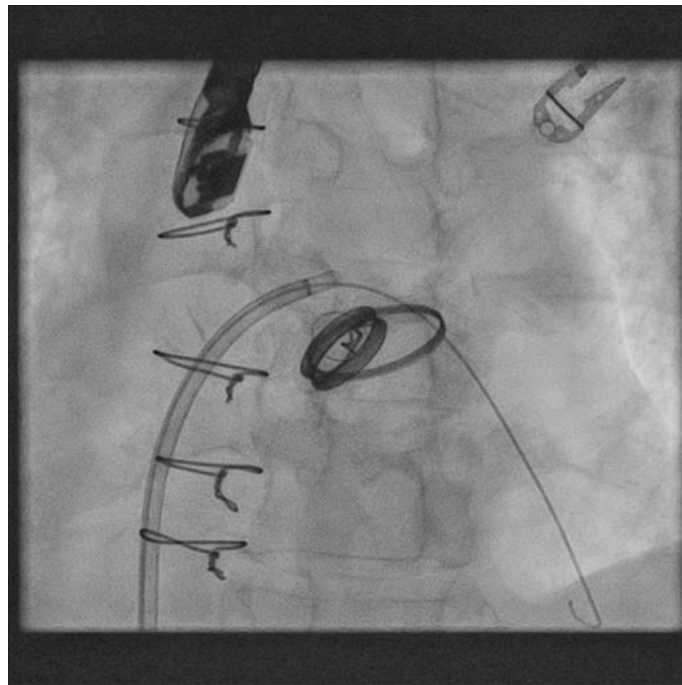
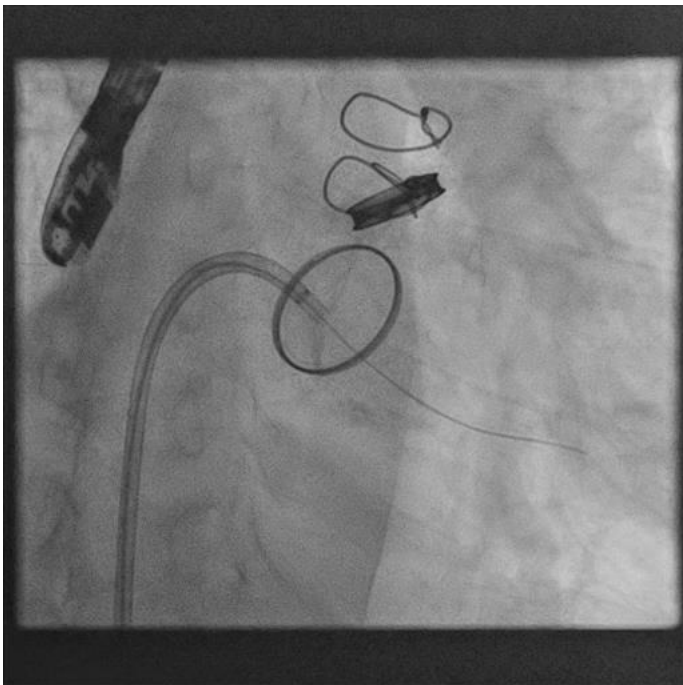
Carlos E. Ruiz, MD, PhD,^a Rebecca T. Hahn, MD,^b Alain Berrebi, MD,^c Jeffrey S. Borer, MD,^d Donald E. Cutlip, MD,^e Greg Fontana, MD,^f Gino Gerosa, MD,^g Reda Ibrahim, MD,^h Vladimir Jelnin, MD,^a Hasan Jilaihawi, MD,ⁱ E. Marc Jolicoeur, MD,^h Chad Kliger, MD,^j Itzhak Kronzon, MD,^j Jonathon Leipsic, MD,^k Francesco Maisano, MD,^l Xavier Millan, MD,^m Patrick Nataf, MD,ⁿ Patrick T. O'Gara, MD,^o Philippe Pibarot, DVM,^p Stephen R. Ramee, MD,^q Charanjit S. Rihal, MD,^r Josep Rodes-Cabau, MD,^p Paul Sorajja, MD,^s Rakesh Suri, MD,^t Julie A. Swain, MD,^u Zoltan G. Turi, MD,^v E. Murat Tuzcu, MD,^t Neil J. Weissman, MD,^w Jose L. Zamorano, MD,^x Patrick W. Serruys, MD, PhD,^y Martin B. Leon, MD,^b of the Paravalvular Leak Academic Research Consortium

Fuite étendue? à fermer en une fois!

- Patient né en 1957
- 1979: RVA mécanique, et RVM bio
- 1988: RVM mécanique
- 2009: RVM (mécanique) redux pour désinsertion
- MCI: angioplasties multiples
- FA permanente
- Anémie hémolytique et insuffisance cardiaque

analyse

- Désinsertion importante, étendue sur 20 mm; postéro-latérale
- « Largeur » 4 mm
- Retentissement hémodynamique
- Décision fermeture percutanée
- Certainement au moins 2 dispositifs



Evolution

- Bonne efficacité sur l'hémolyse
- Mais persistance de signes d'insuffisance cardiaque
- Décision de reprise pour complément, fuite autour du dispositif précédent

