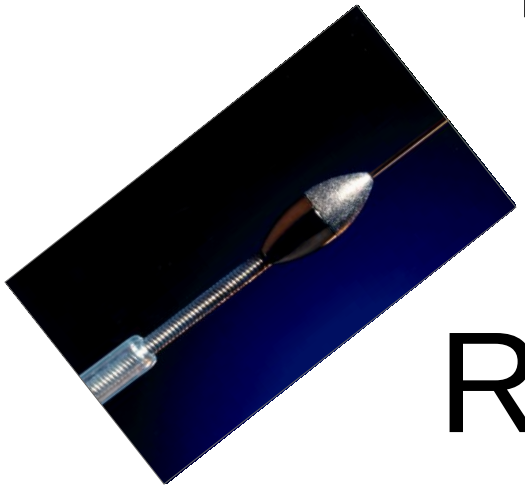


Le ‘Pire’ du Rotablator

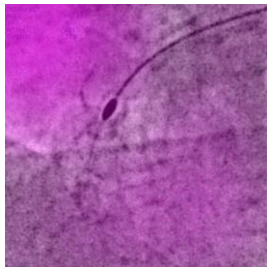
Dr Philippe Brunel

Cardiologie GCIDB

Groupe Cardiologie Interventionelle Dijon Bourgogne

Clinique Valmy

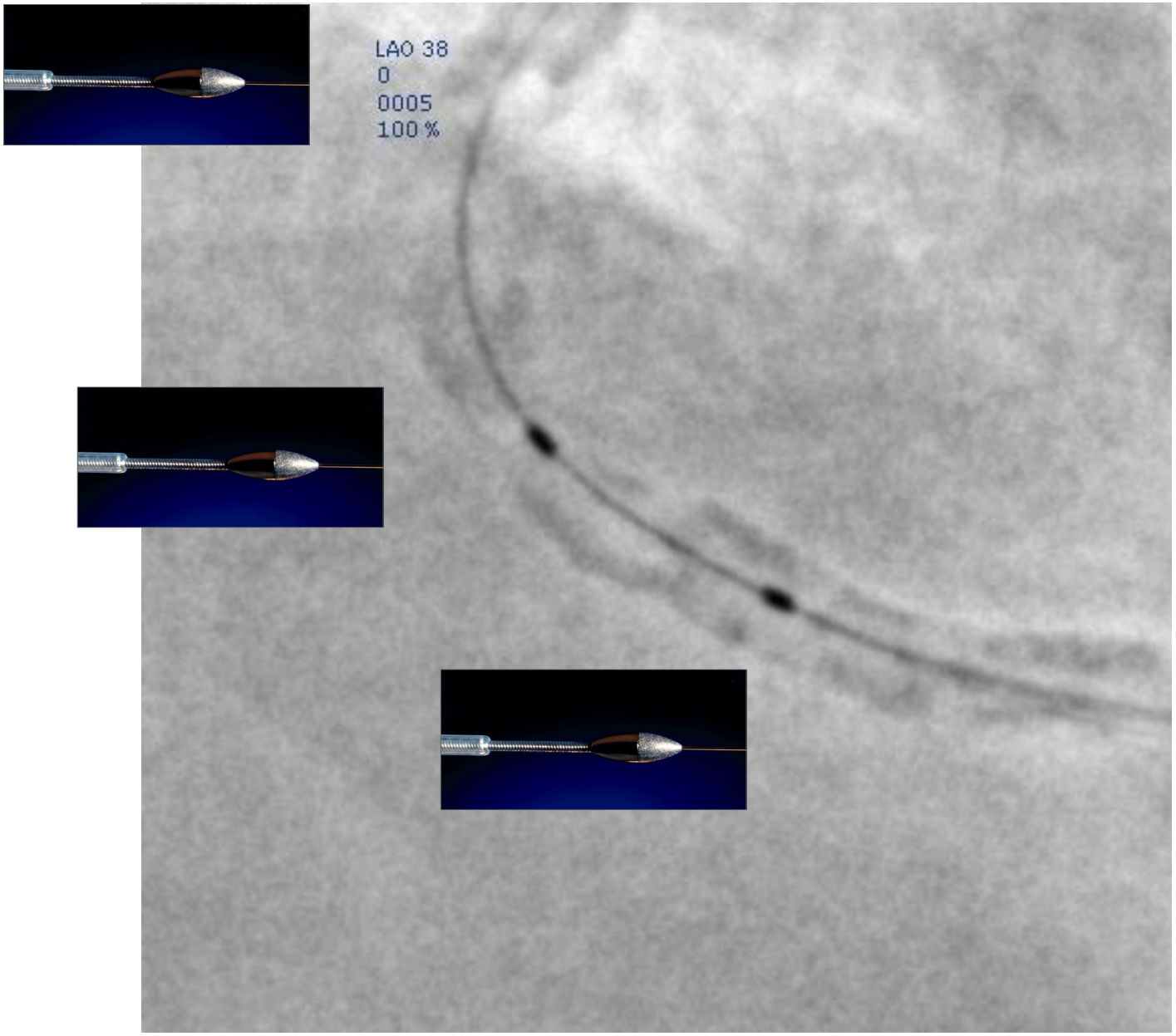
Hopital Privé Dijon Bourgogne



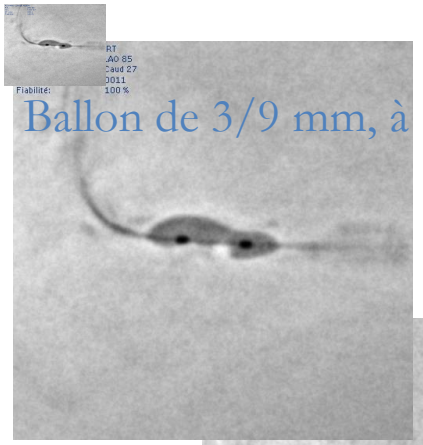
Je suis capable du meilleur comme du pire.

Mais, dans le pire, c’est moi le meilleur.

Coluche, 1944-1986

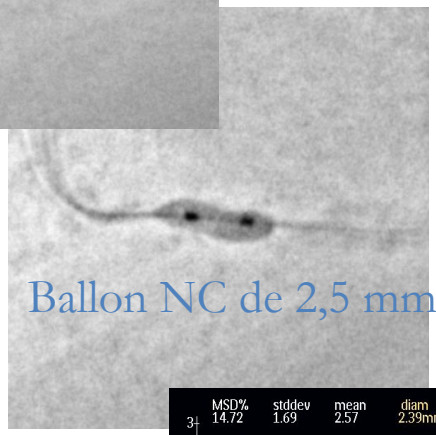

LAO 38
0
0005
100 %

Le Pire?

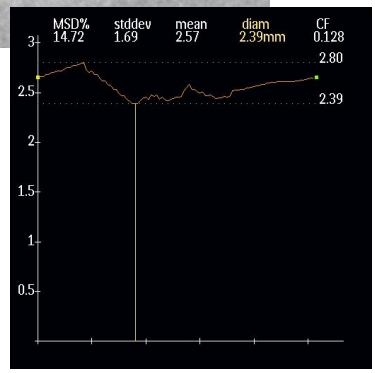


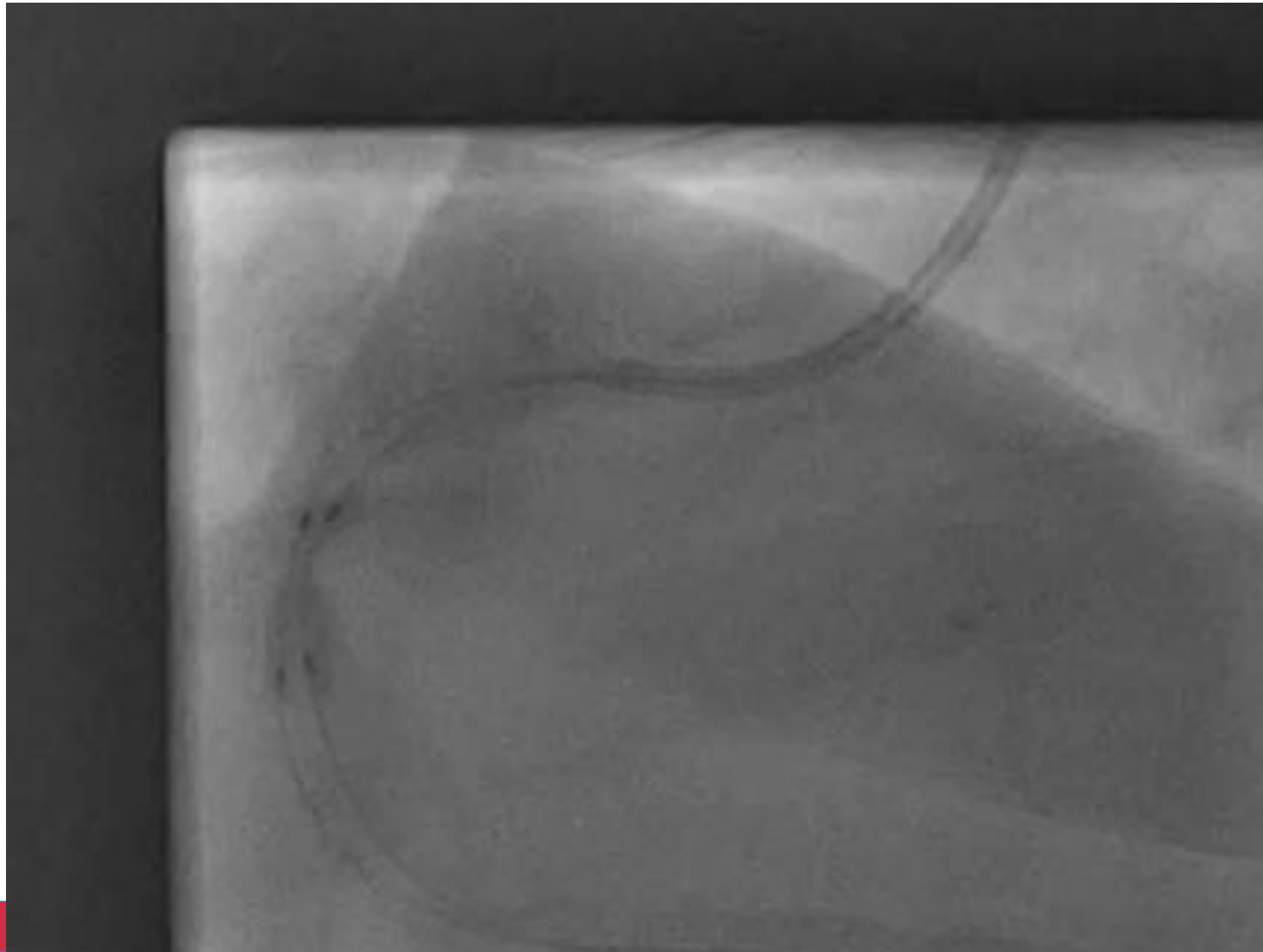
Ne pas l'avoir ?

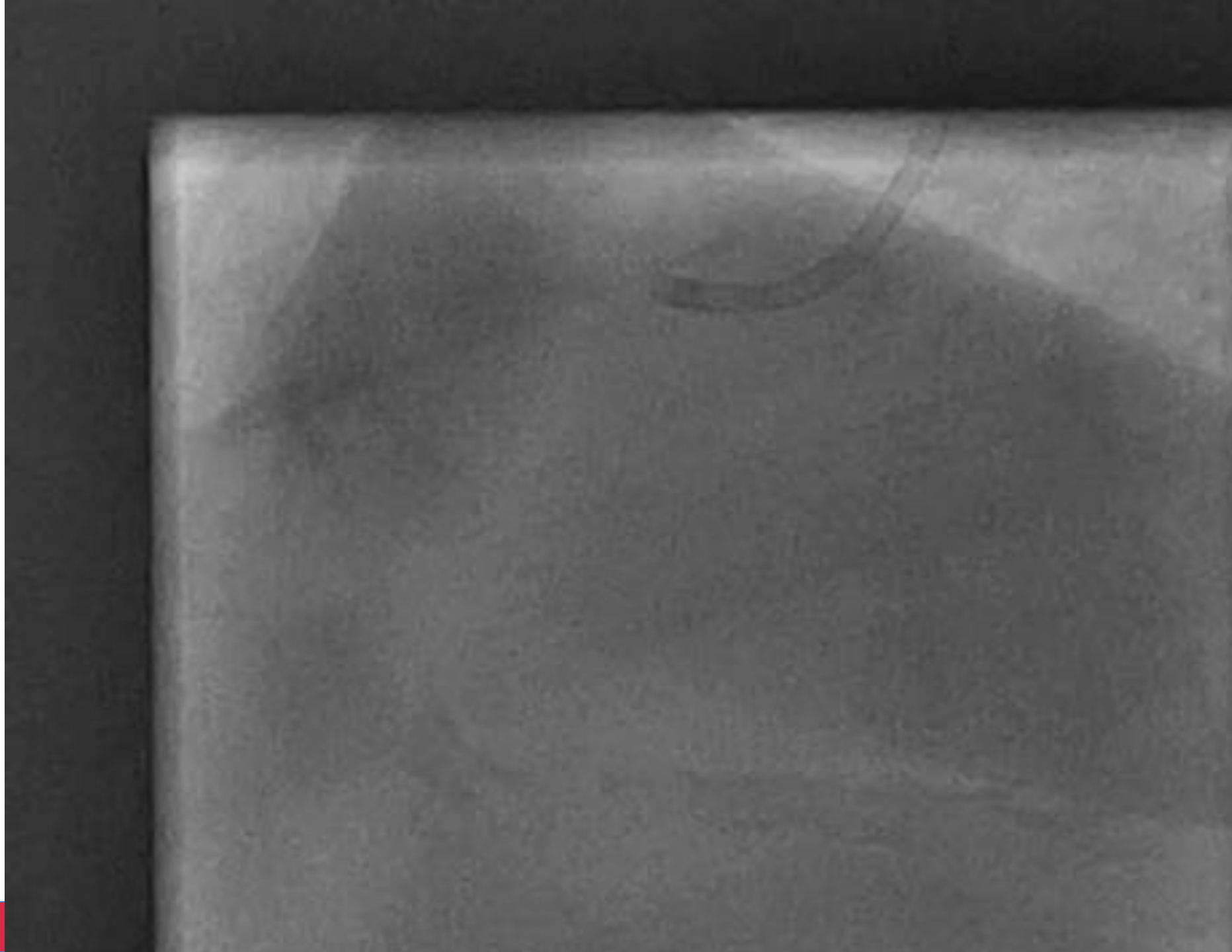
L'avoir et ne pas s'en servir?

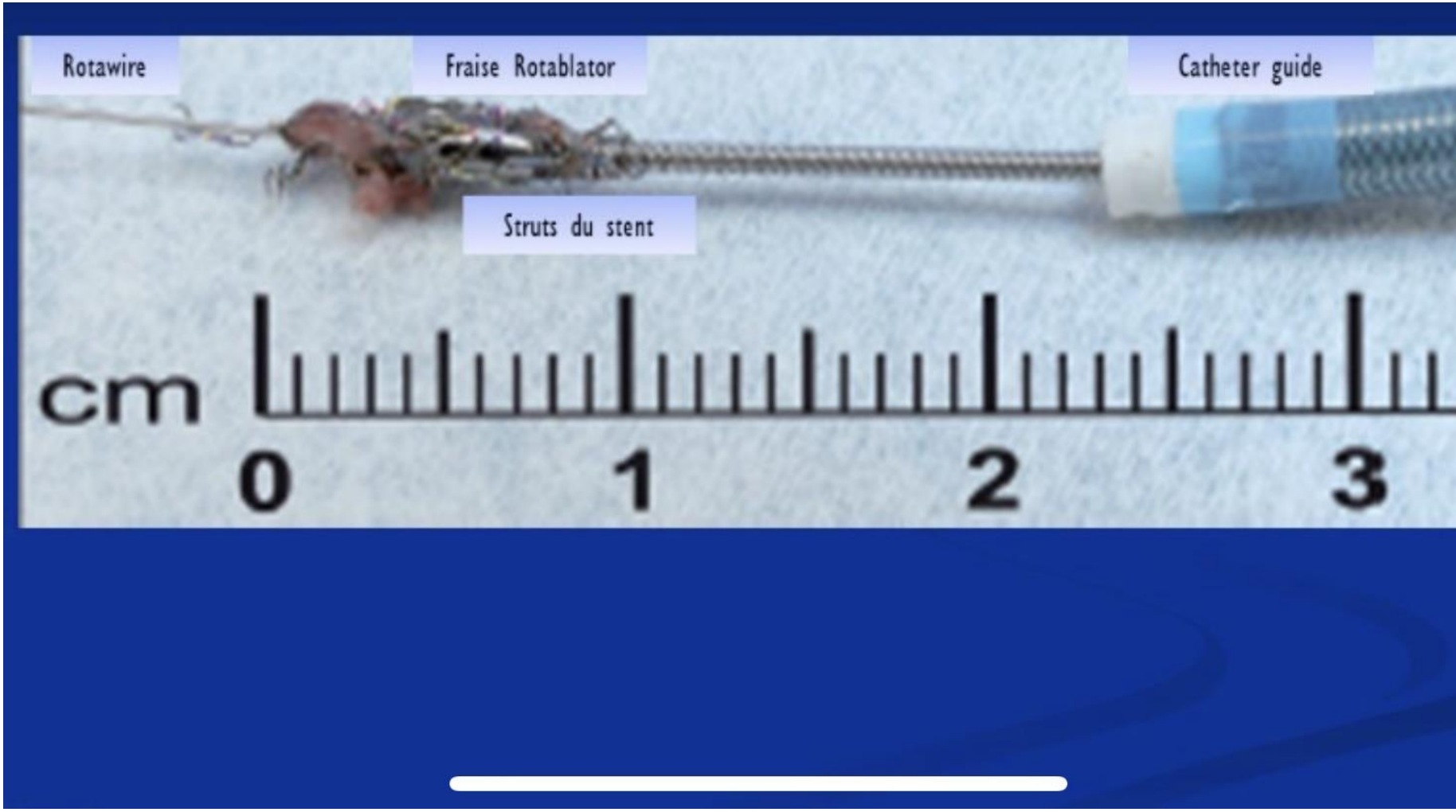


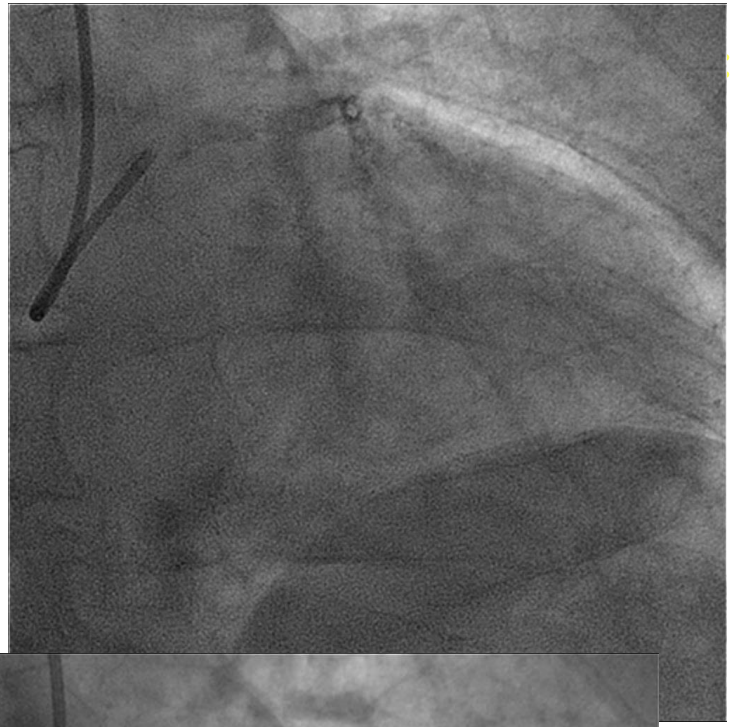
L'avoir et avoir peur de l'utiliser?

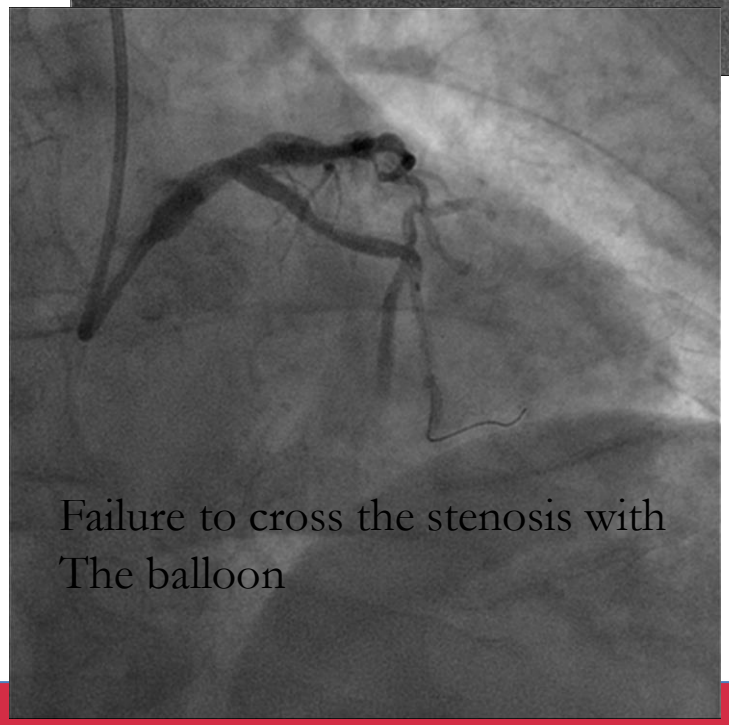




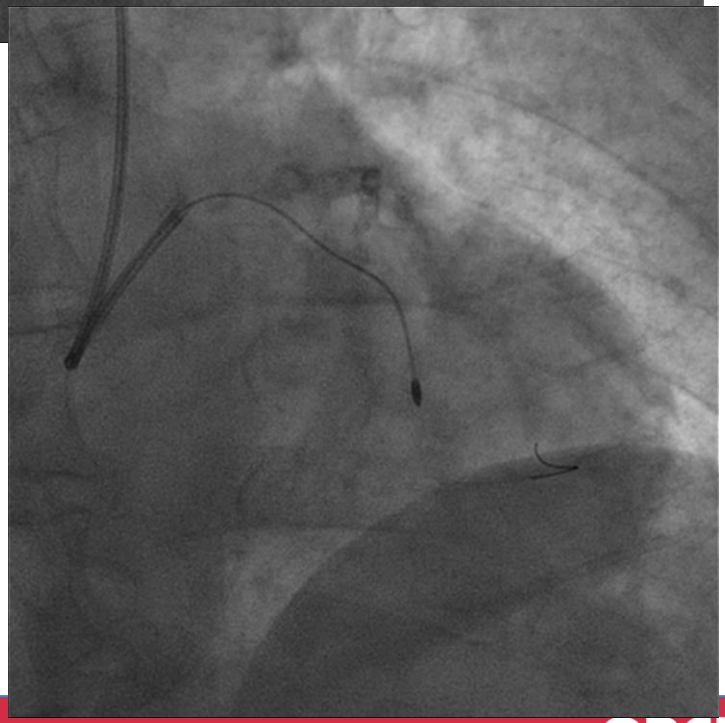



Rotawire
Fraise Rotablator
Catheter guide
Struts du stent
cm
0
1
2
3

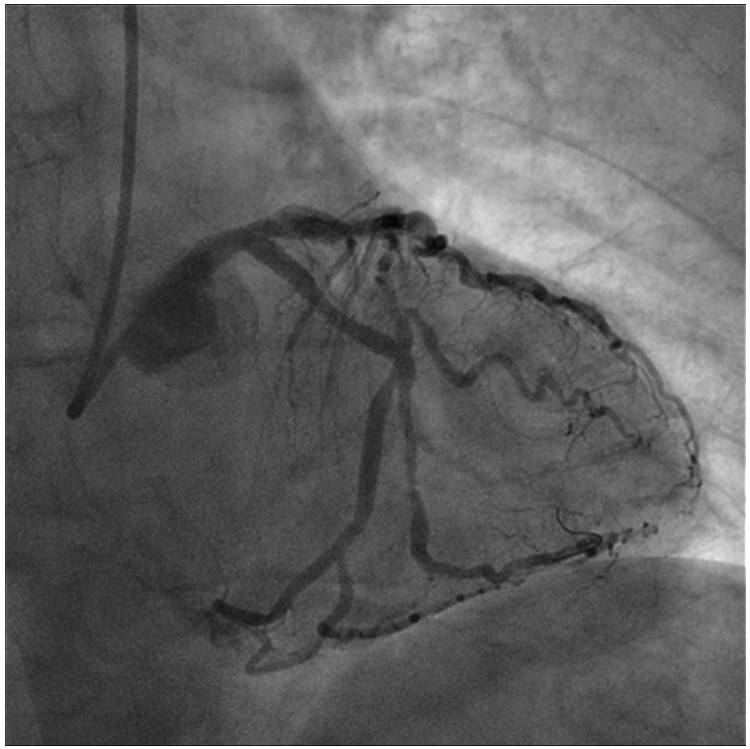


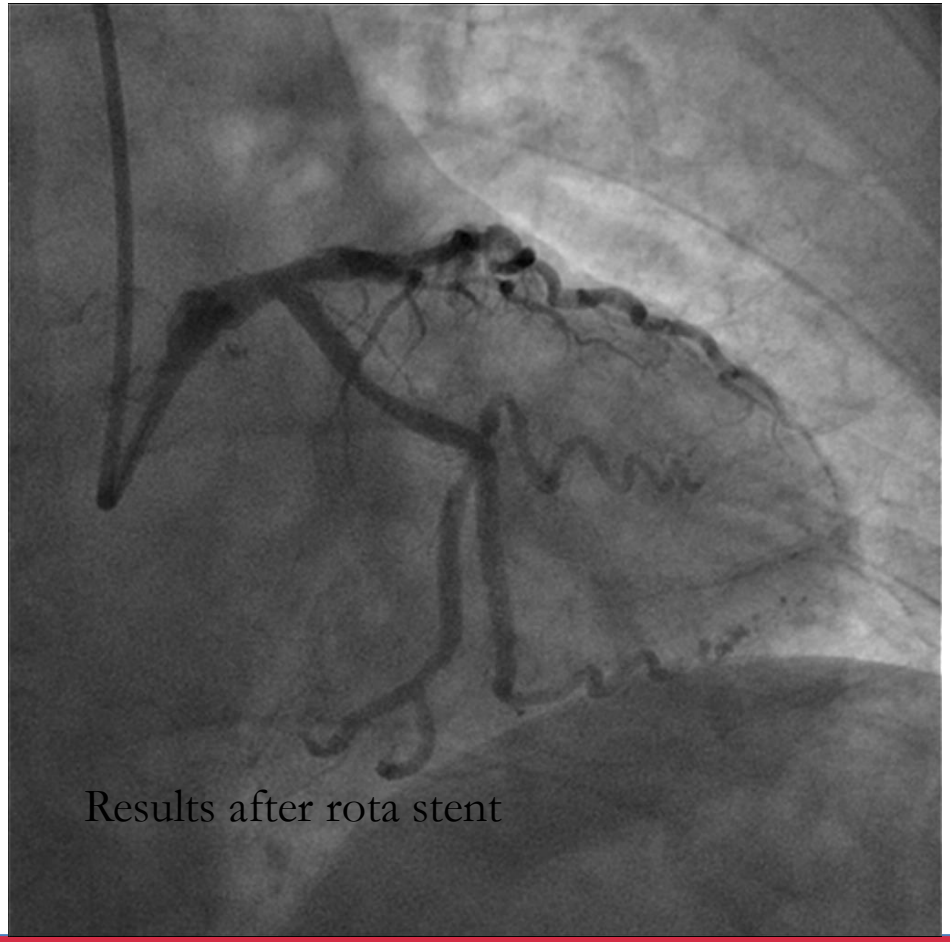


Failure to cross the stenosis with
The balloon



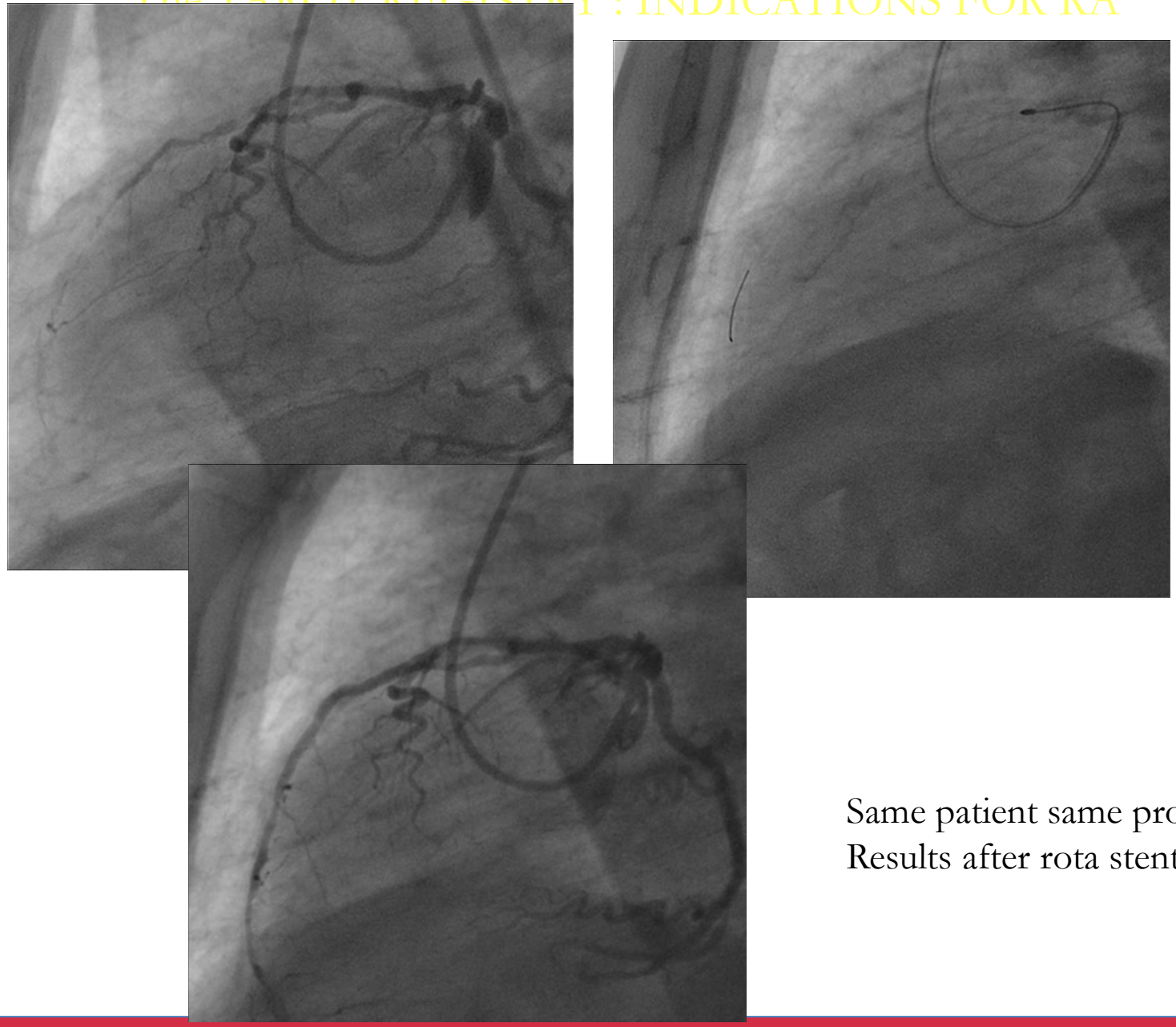
The TAROT REGISTRY : INDICATIONS FOR RA





Results after rota stent

The TAROT REGISTRY : INDICATIONS FOR RA



Same patient same procedure
Results after rota stent

Le Pire?

Une pharmacienne qui vous dit en novembre il n'y en a plus, vous avez tout consommé!

Pas de 1,25mm??, ok donne moi cette 1,75 mm alors….

Table 2. Reported Complications of RA and DES Implantation

Trial/First Author (Ref. #)	Year	N	Death, %	MI, %	Urgent CABG, %	Vascular, %	Dissection, %	Perforation, %	Acute Closure, %	Side Branch Loss, %	Slow Flow/ No Reflow, %
ROTAXUS (16)	2013	120	1.7	1.7	0.8	5.8	3.3	1.7	—	—	0.0
Abdel-Wahab et al. (17)	2013	205	1.5	2.4	—	—	4.4	0.5	—	—	2.0
Naito et al. (18)	2012	233	0.0	1.3	—	—	1.7	0.4	—	—	—
Benezet et al. (19)	2011	102	1.0	1.0	—	—	2.9	0.0	—	—	—
Dardas et al. (20)	2011	184	0.0	—	—	—	—	—	—	—	—
Garcia de Lara et al. (21)	2010	50	4.0	14.0	0.0	—	2.0	2.0	2.0	4.0	0.0
Rathore et al. (22)	2010	391	1.0	6.9	0.0	—	5.9	2.0	0.3	3.6	2.6
Vaquerizo et al. (23)	2010	63	0.0	3.2	0.0	1.6	—	—	1.6	—	—
Furuichi et al. (24)	2009	95	0.0	3.2	—	—	2.1	1.1	—	—	1.1
Clavijo et al. (25)	2006	81	0.0	19.8	—	—	1.9	—	—	—	—

CABG = coronary artery bypass graft surgery; DES = drug-eluting stent(s); MI = myocardial infarction; RA= rotational atherectomy.

Angiography is insensitive for detection of calcification in comparison with intravascular ultrasound (IVUS), but visible calcification on angiography predicts a larger arc of calcification on IVUS (43). Intravascular imaging with IVUS or optical coherence tomography (OCT) further permits discrimination of superficial (near the intima–lumen interface) and deep (at the media/adventitia border) calcium (44,45).

RA facilitates procedural success in PCI of complex (American College of Cardiology/American Heart Association types B2 and C) lesions (46,47), including chronic total occlusions (48,49), ostial lesions (50–52), and bifurcation lesions, which may be associated with both bulky

Although studied previously for treatment of in-stent restenosis (ISR) with favorable short-term and late outcomes, in the DES era, RA has largely been supplanted for this purpose by balloon angioplasty, drug-coated balloons, cutting or scoring balloons, same or different DES, vascular brachytherapy, or CABG (58). It is worth noting that the benefits of RA, when used for ISR, likely depend on the mechanism of restenosis—an observation explaining the discrepancy between the 2 randomized trials on the subject. In ROSTER (Randomized Trial of Rotational Atherectomy Versus Balloon Angioplasty for Diffuse In-Stent Restenosis), which randomized 200 patients with IVUS-confirmed diffuse ISR to RA plus low-pressure balloon

TAROT FRENCH REGISTRY

252 patients

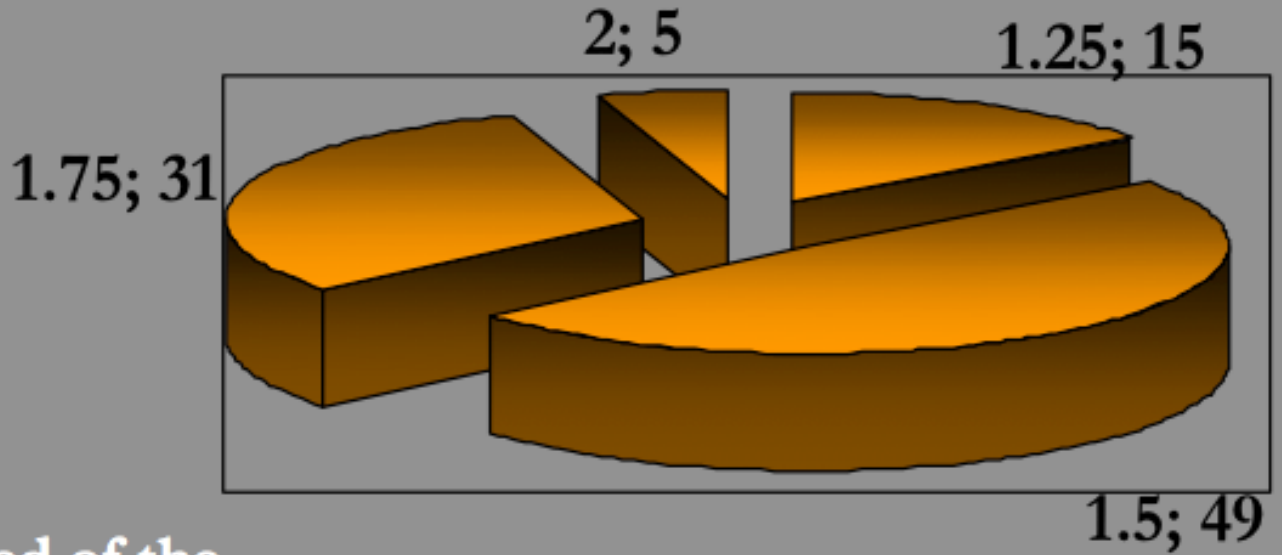
- ✓ **2005, Between July and december, 29 Frenchcenters**
- ✓ **All consecutive rotablator procedures**
- ✓ **2.13% (0,3-6%) of all procedures performed during the same period of time**

TAROT RESULTS

Succès de la procédure de rotablator : 97%

- ✓5 échecs
- ✓Un franchissement partiel

TAROT : PROCEDURE



- ✓ **mean speed of the burr : 182000 rpm**
- ✓ **total atherectomy time : 51+/- 43 sec**

- ✓ **Mean residual stenosis after RA : 44+/- 27%**

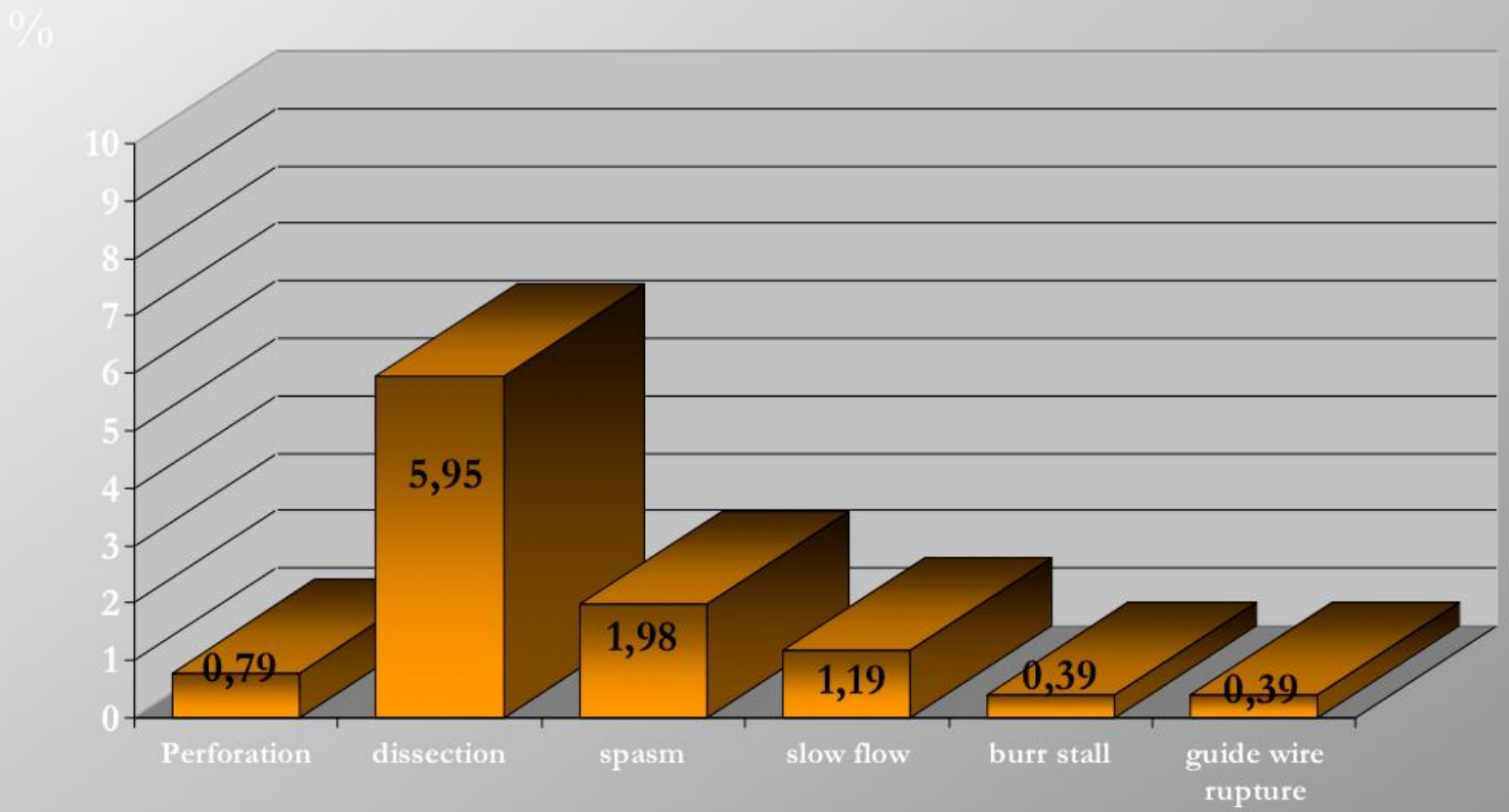
% Le Pire %

N=252

Blocage de fraise	0,39%
Rupture de guide	0,39%
Perforation	0,79%

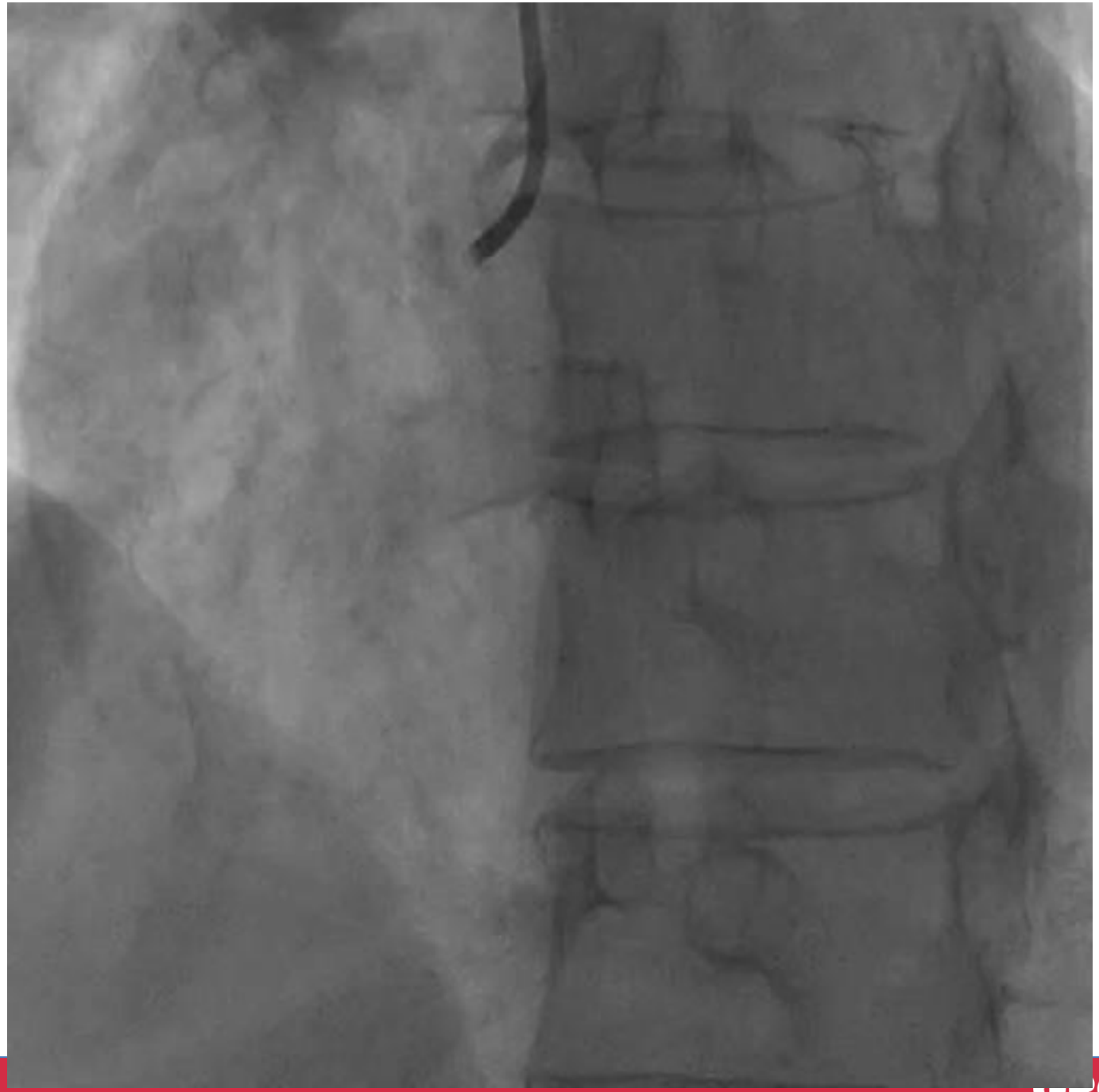
TAROT : COMPLICATIONS

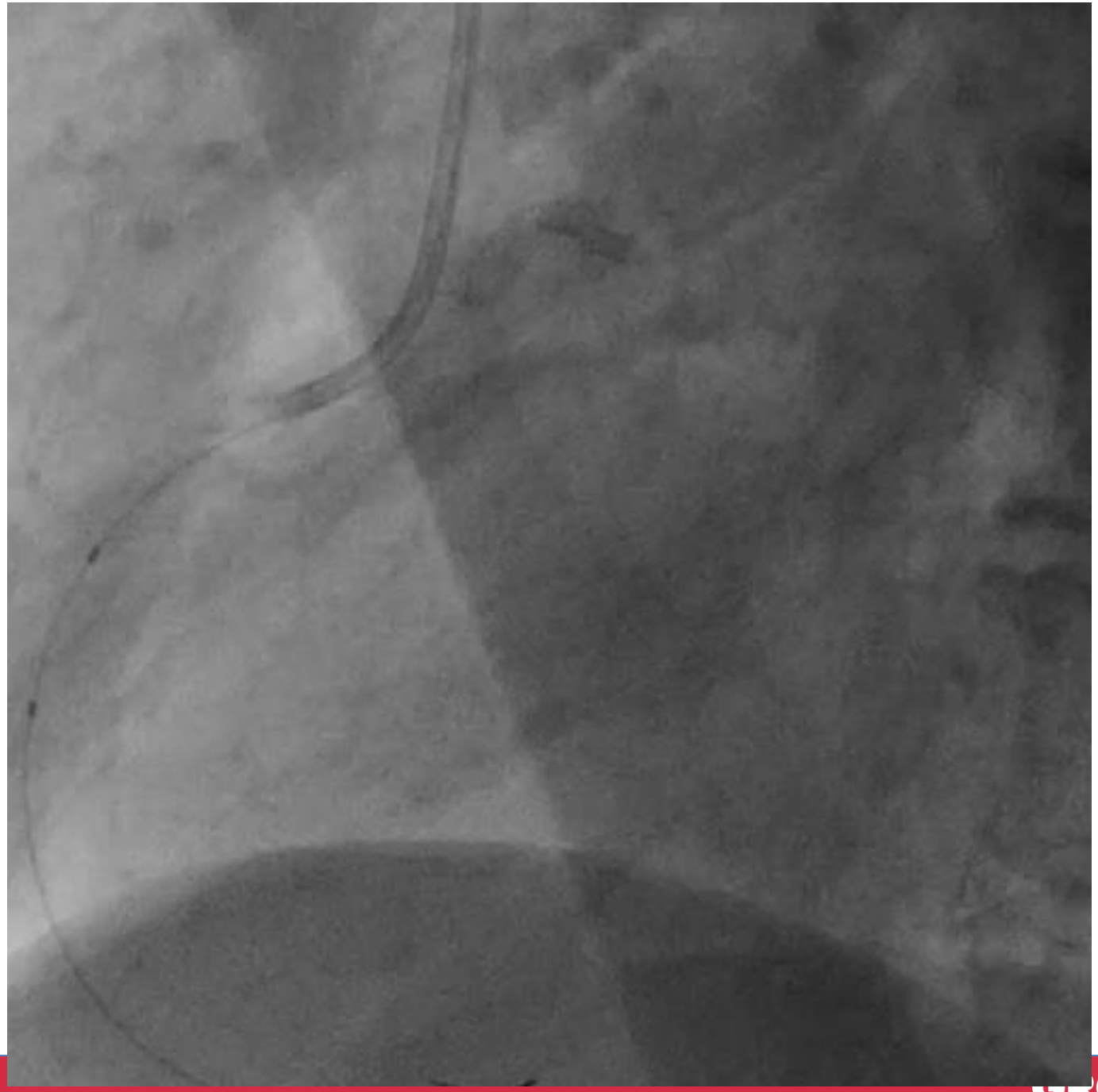
(n=252)

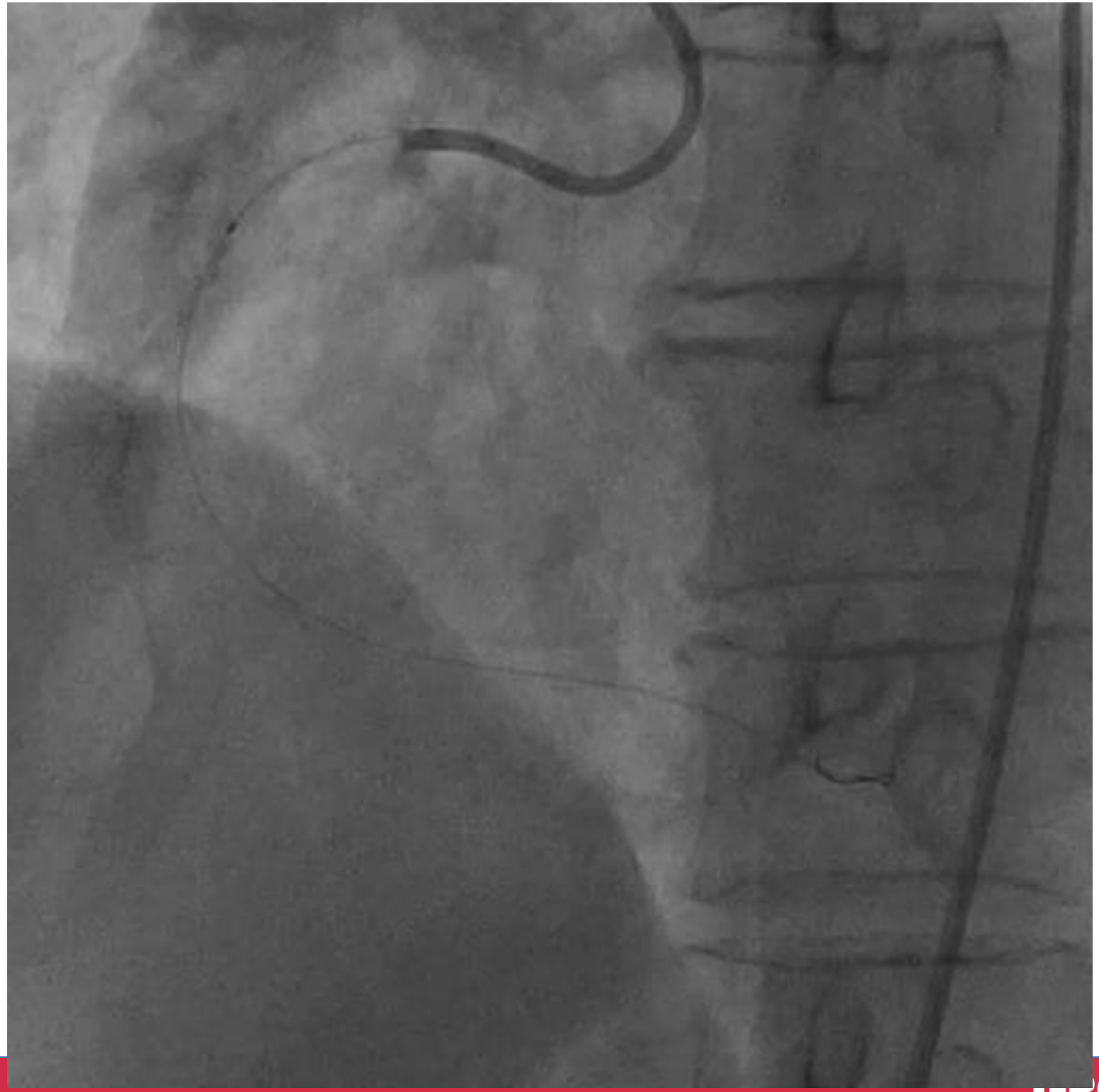


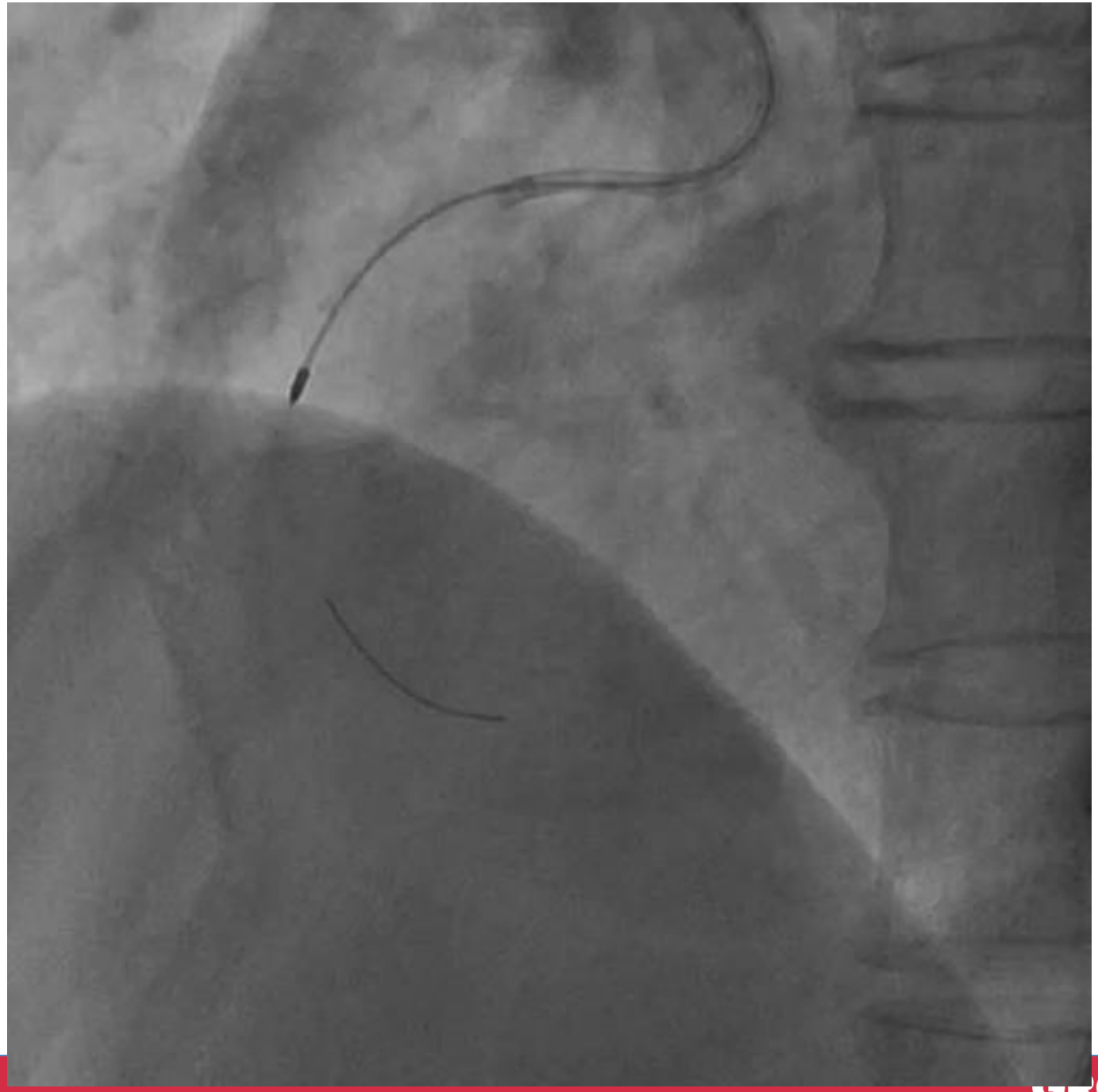
1

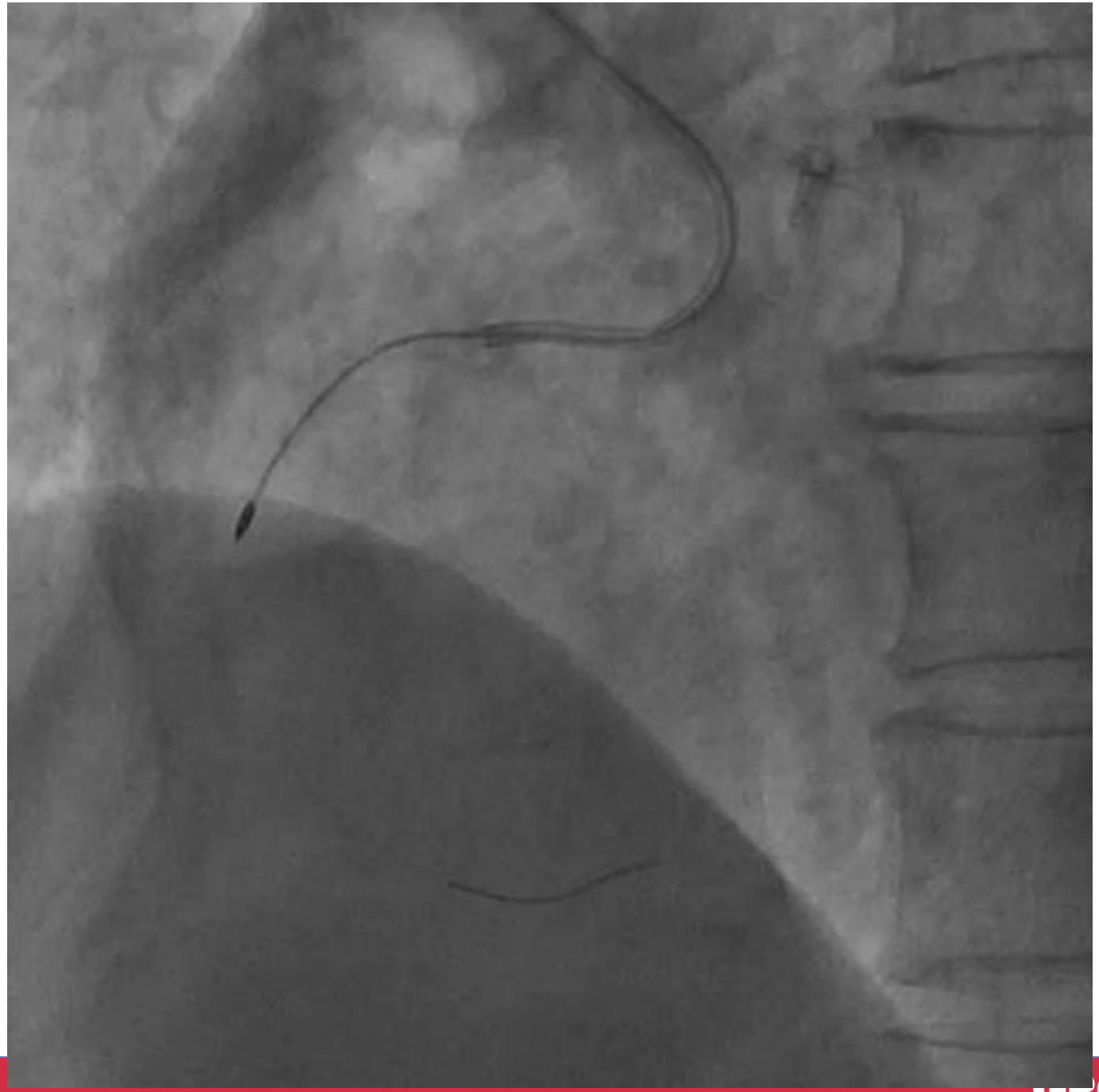
Ou est la fraise ?

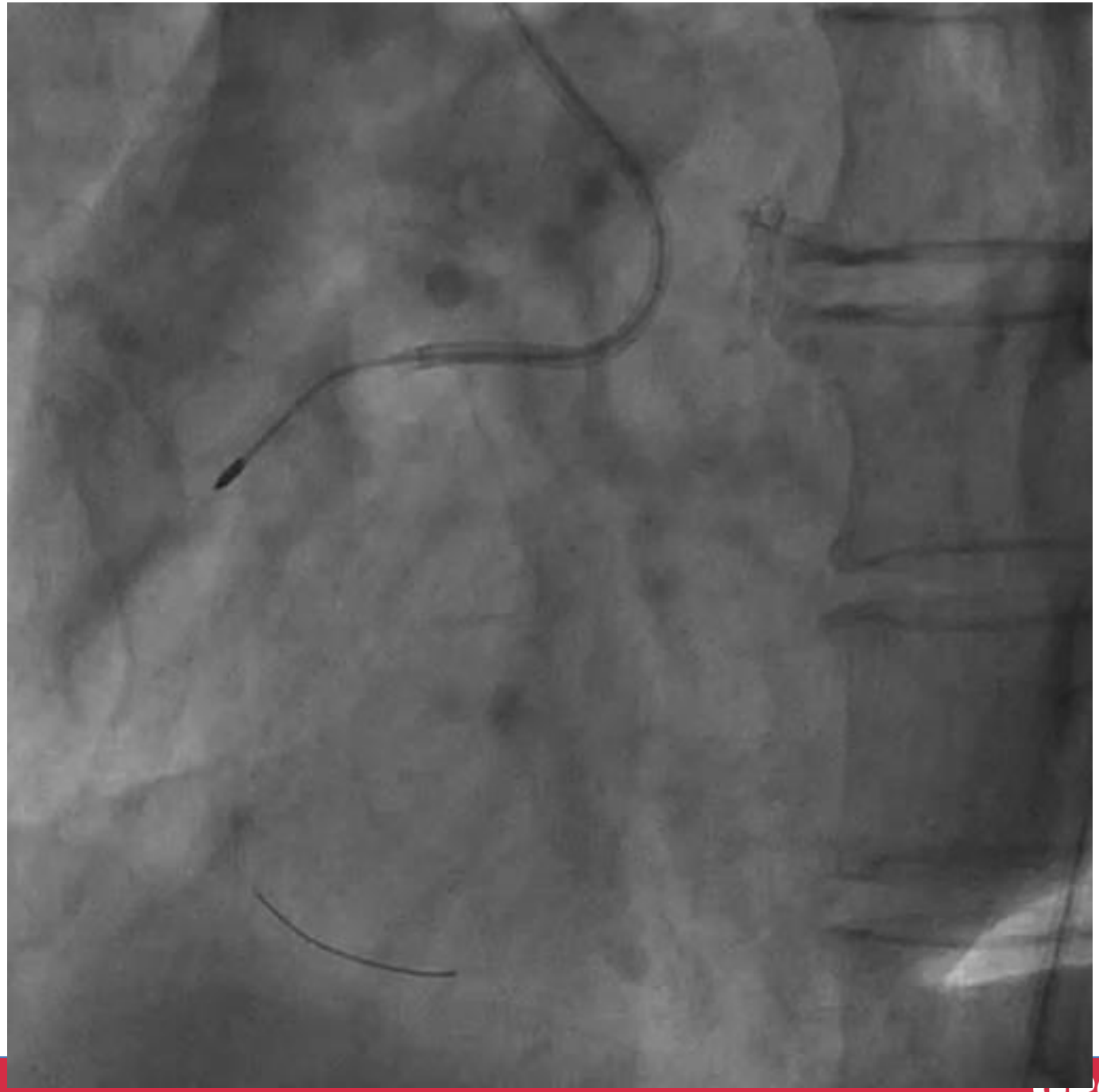


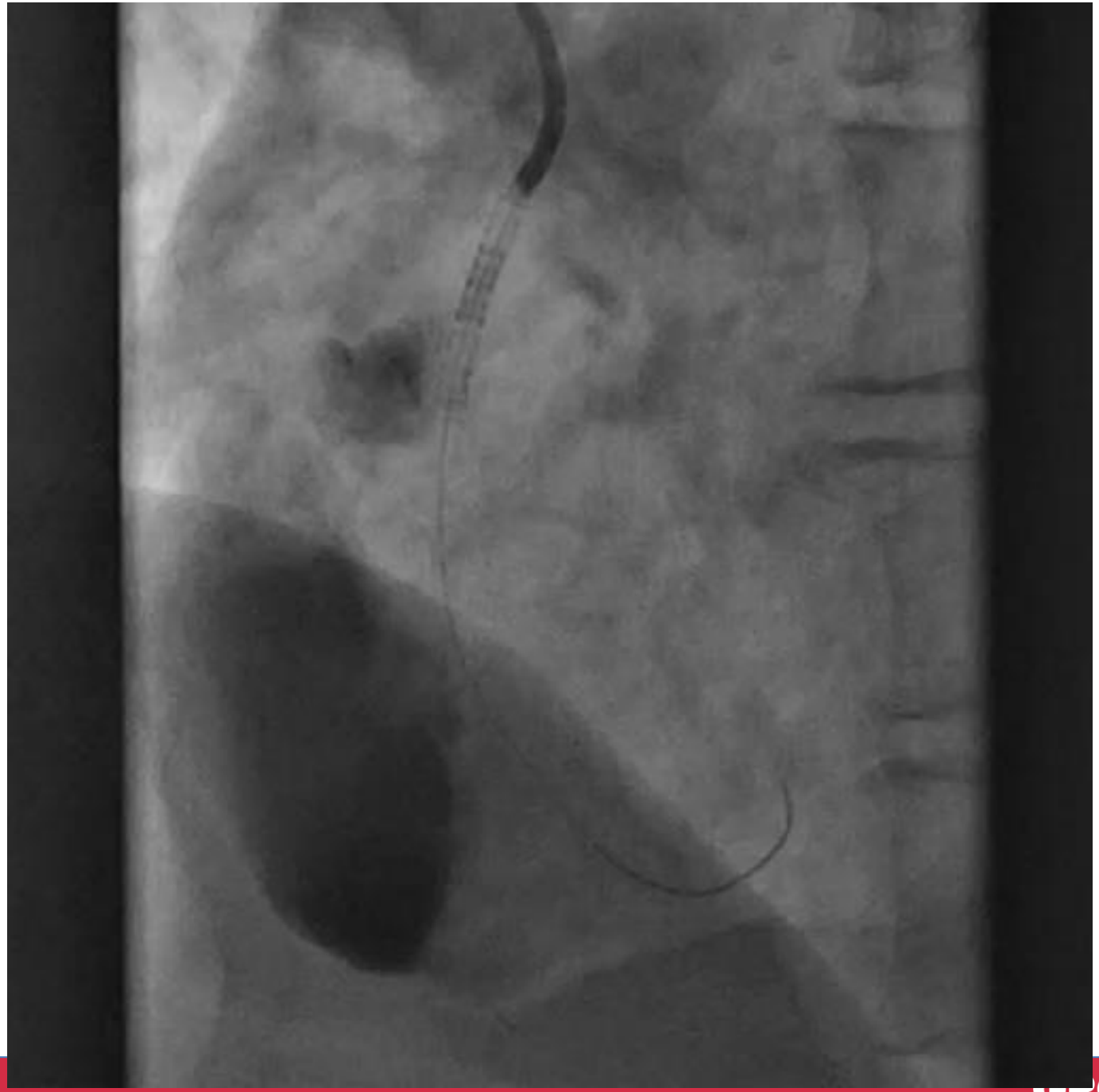












- ✓ Fraiser sur le guide
- ✓ Depister immédiatement une mauvaise position de la fraise par rapport au guide
- ✓ Verifier l'intégrité du guide +++ lors des reculs de kt guide dans l'aorte, qui peuvent générer un bouclage du guide dans l'aorte et sa fracture ultérieure lorsque l'on ré-avance la fraise…

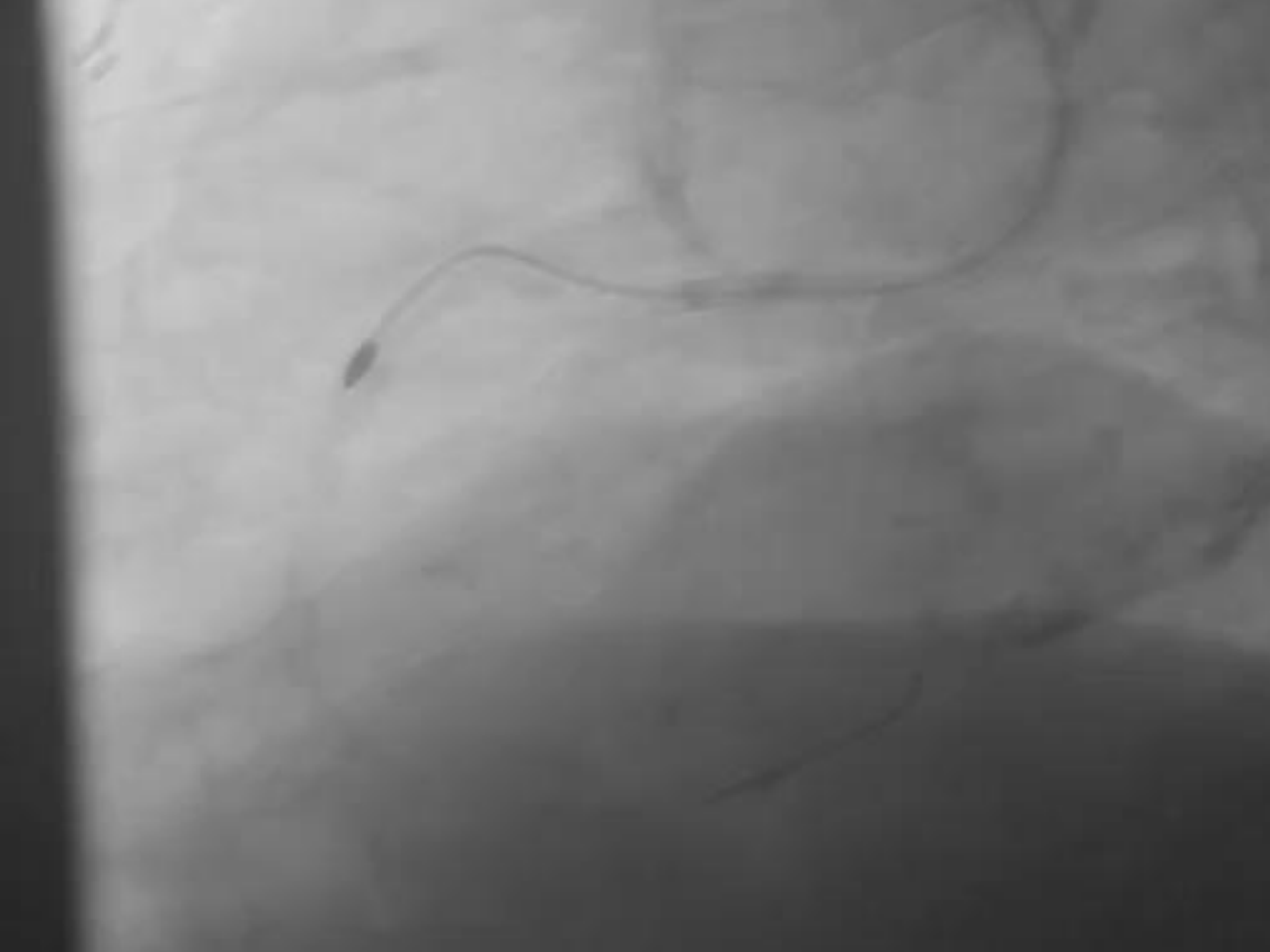
- ✓ Etre au point sur les techniques de prise en charge rapide des perforations

- ✓ Savoir éviter le stent graft….si c’est possible

2

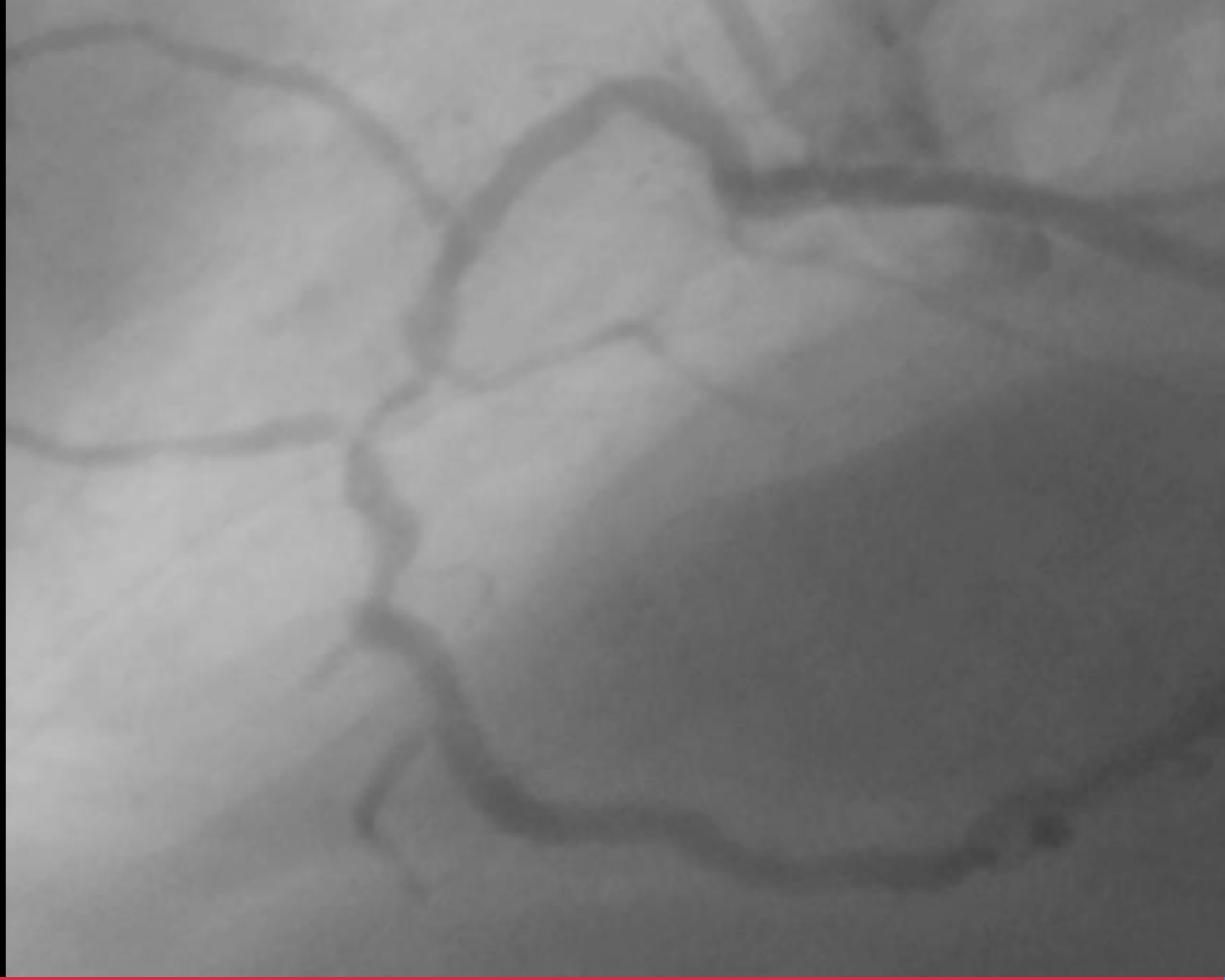
Ou est la lésion?

BLOCAGE DE FRAISE



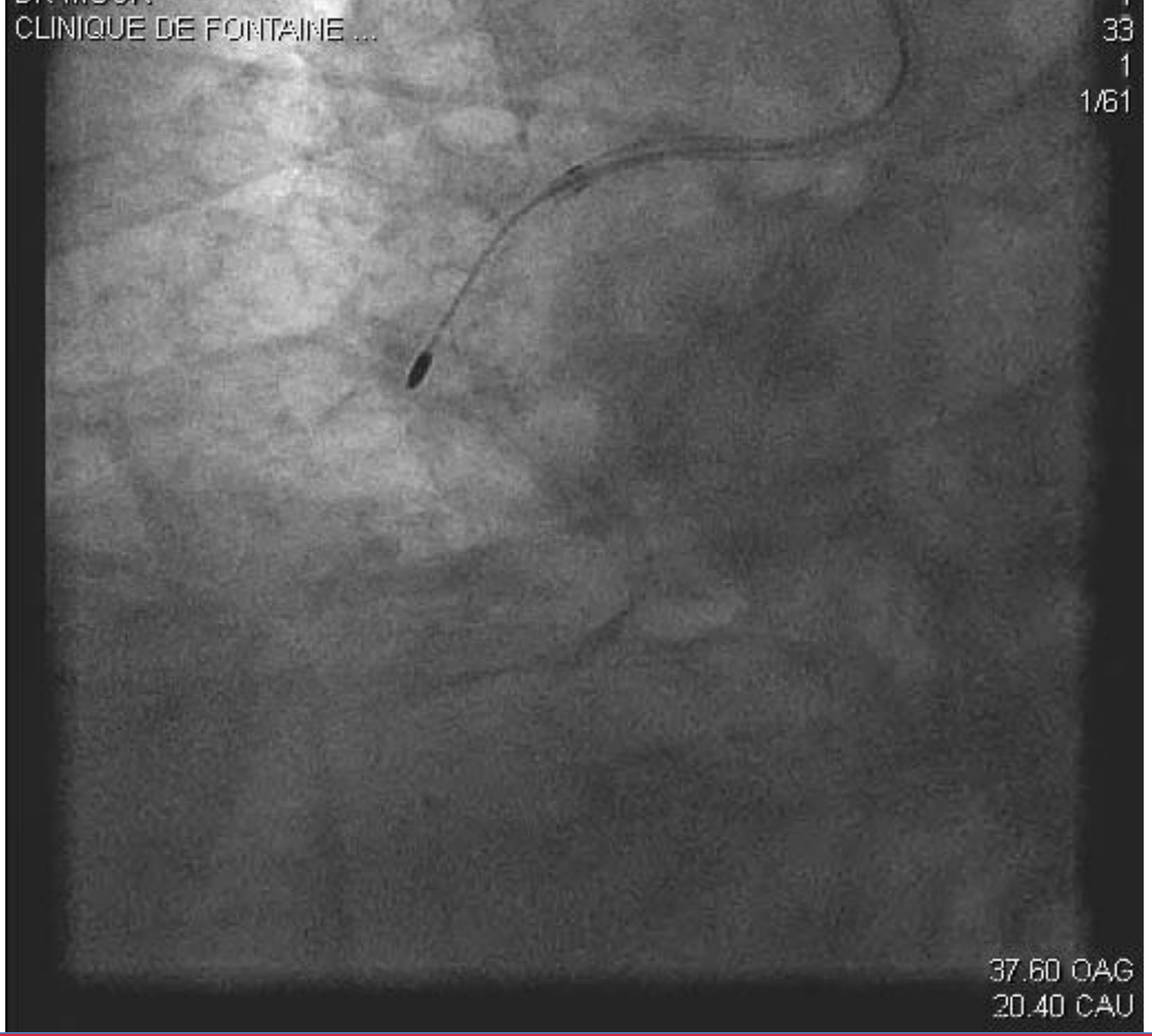
3

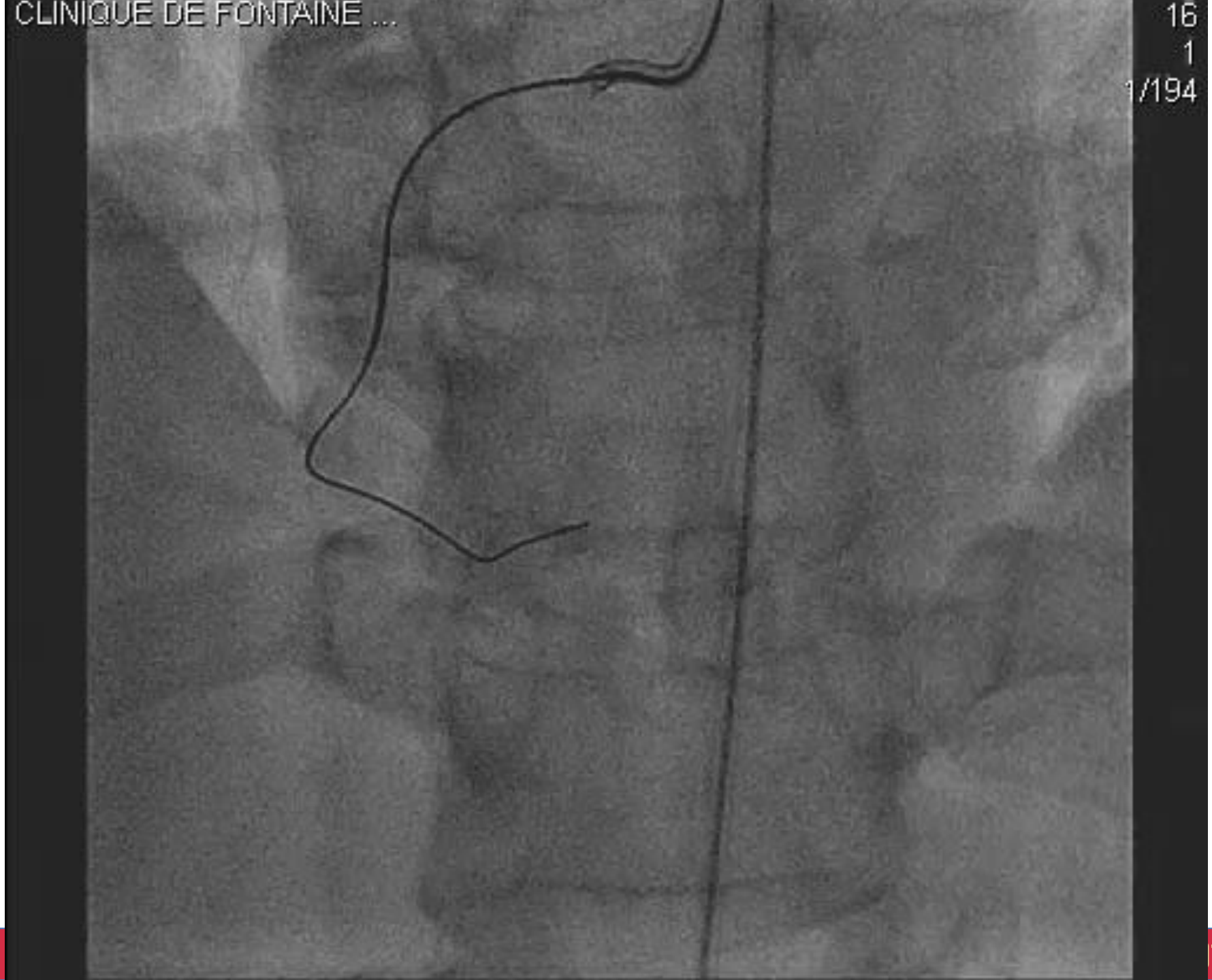
- ✓ Etude attentive du film de coro avant la procédure
- ✓ Identification au prélable de sténose sérrée en tandem, source de blocage de fraise

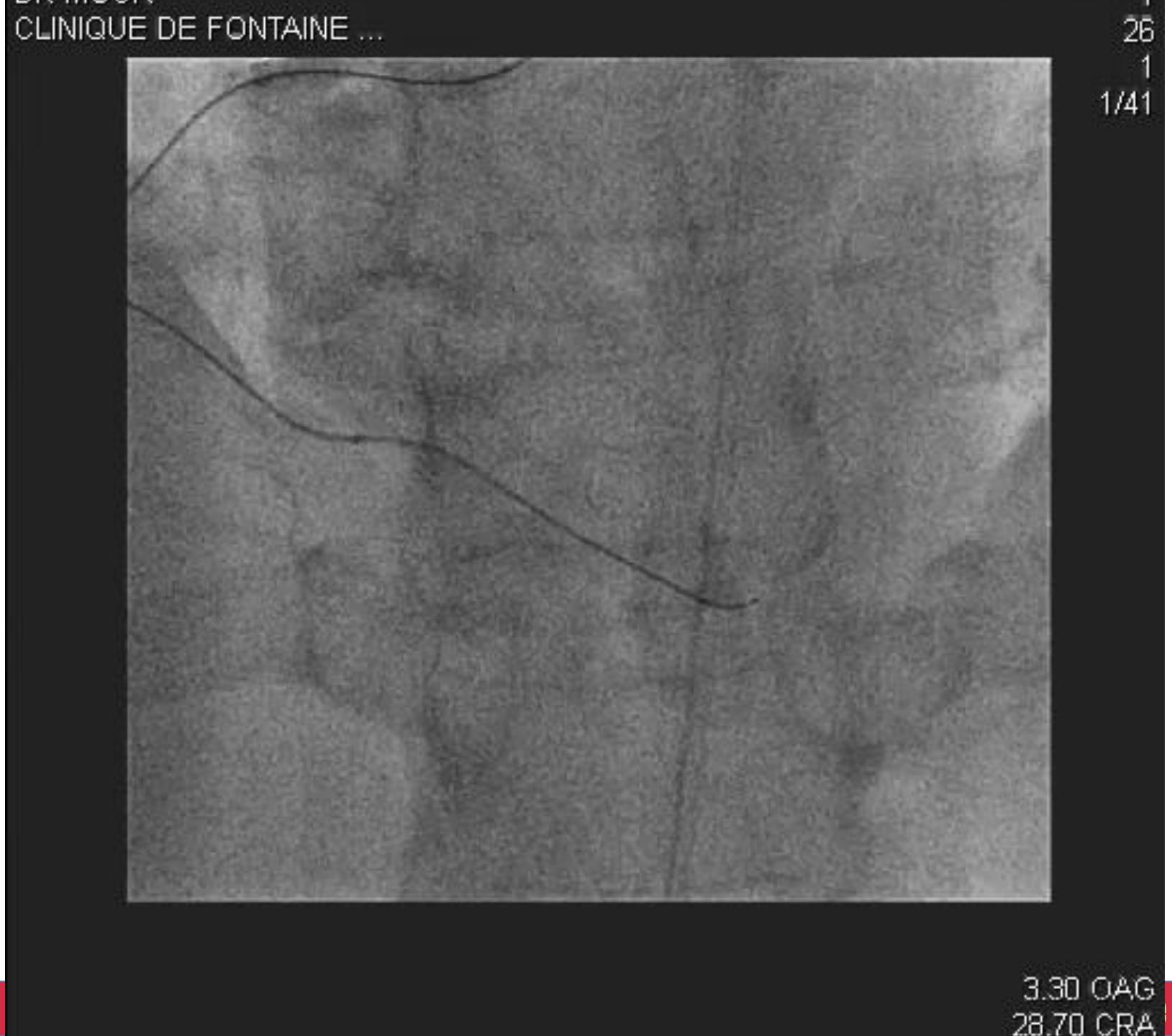


3

Ou est le guide?

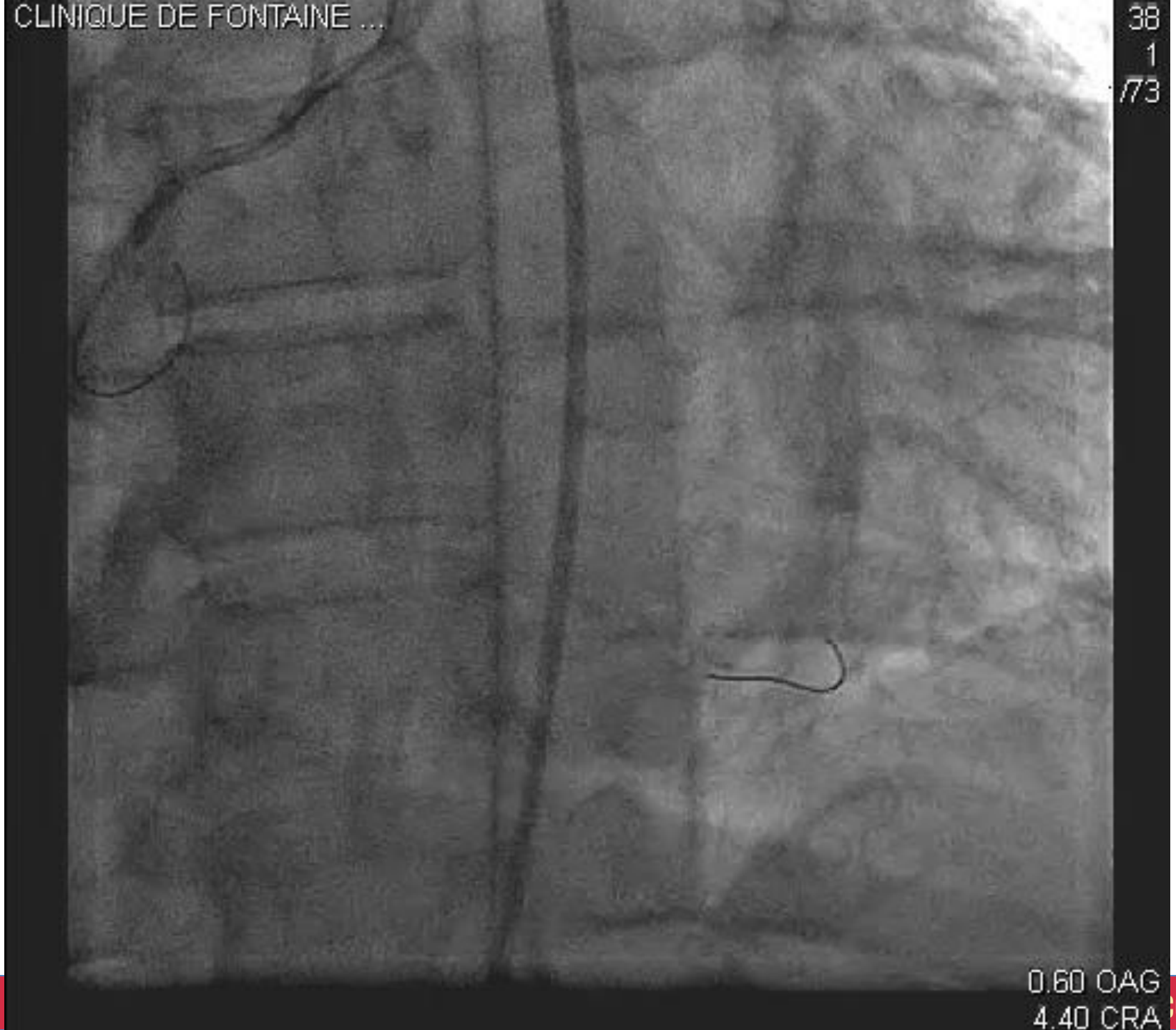

CLINIQUE DE FONTAINE ...
33
1
1/61
37.60 OAG
20.40 CAU

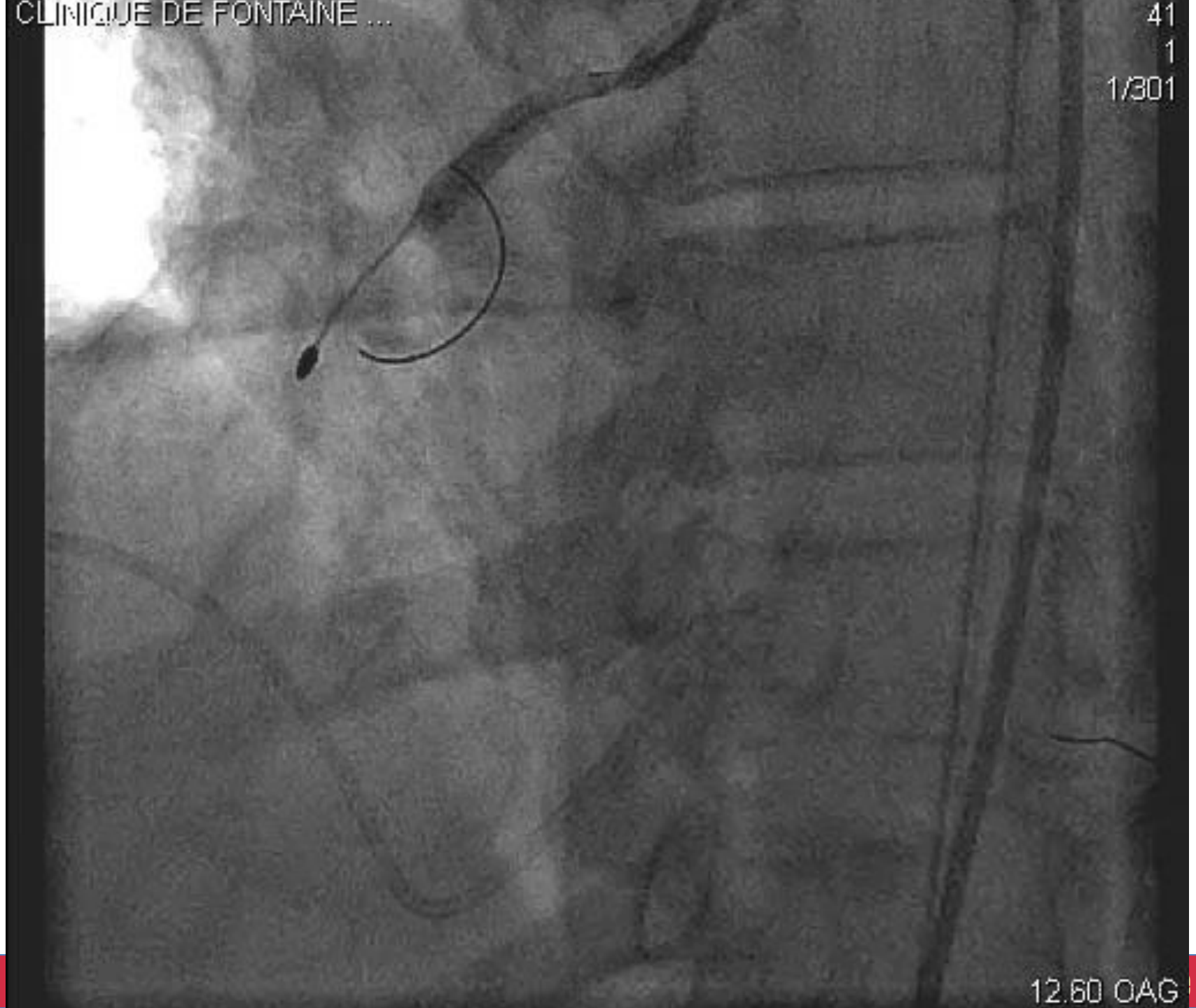

CLINIQUE DE FONTAINE ...
16
1
1/194

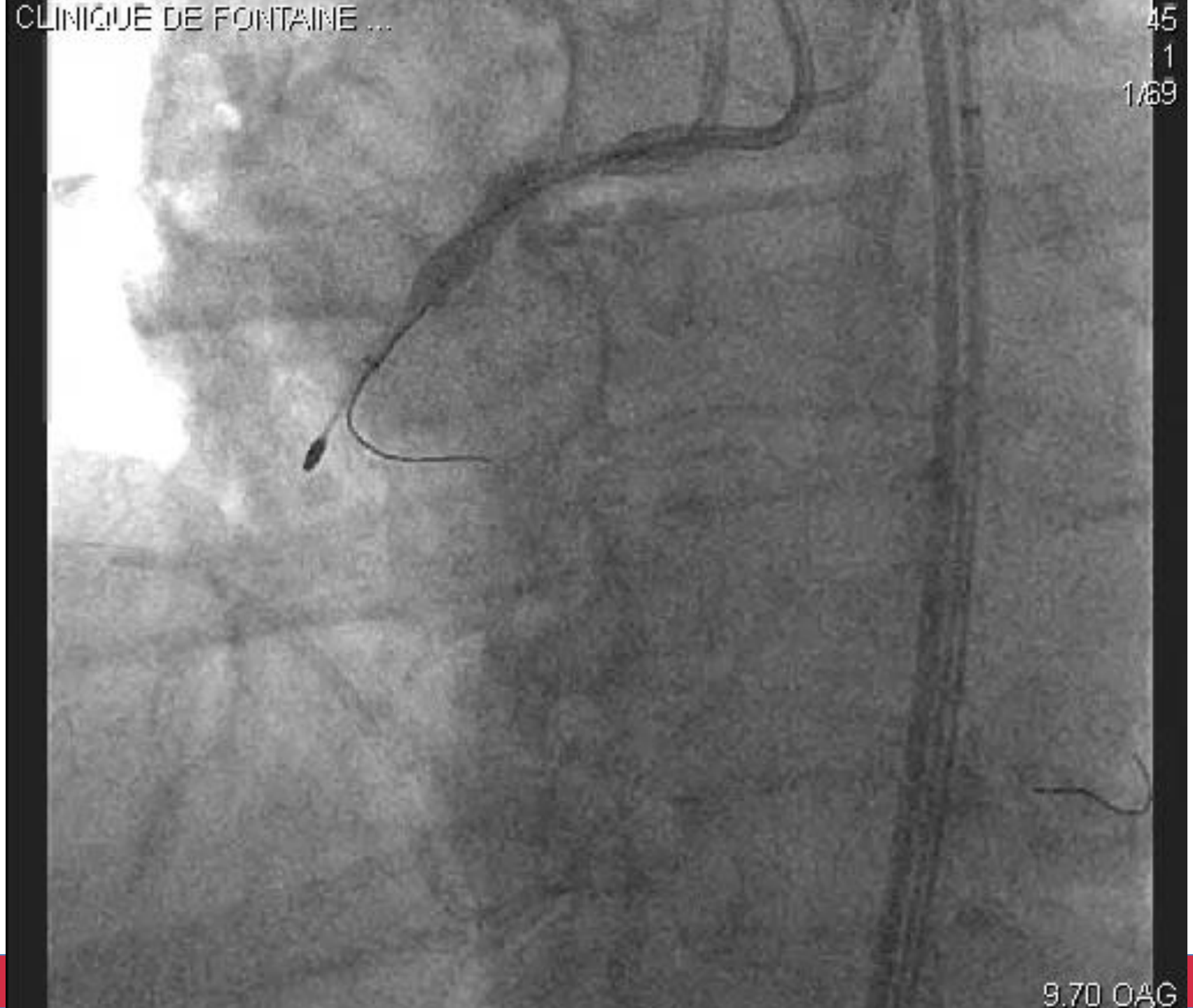

CLINIQUE DE FONTAINE ...
26
1
1/41
3.30 OAG
28.70 CRA

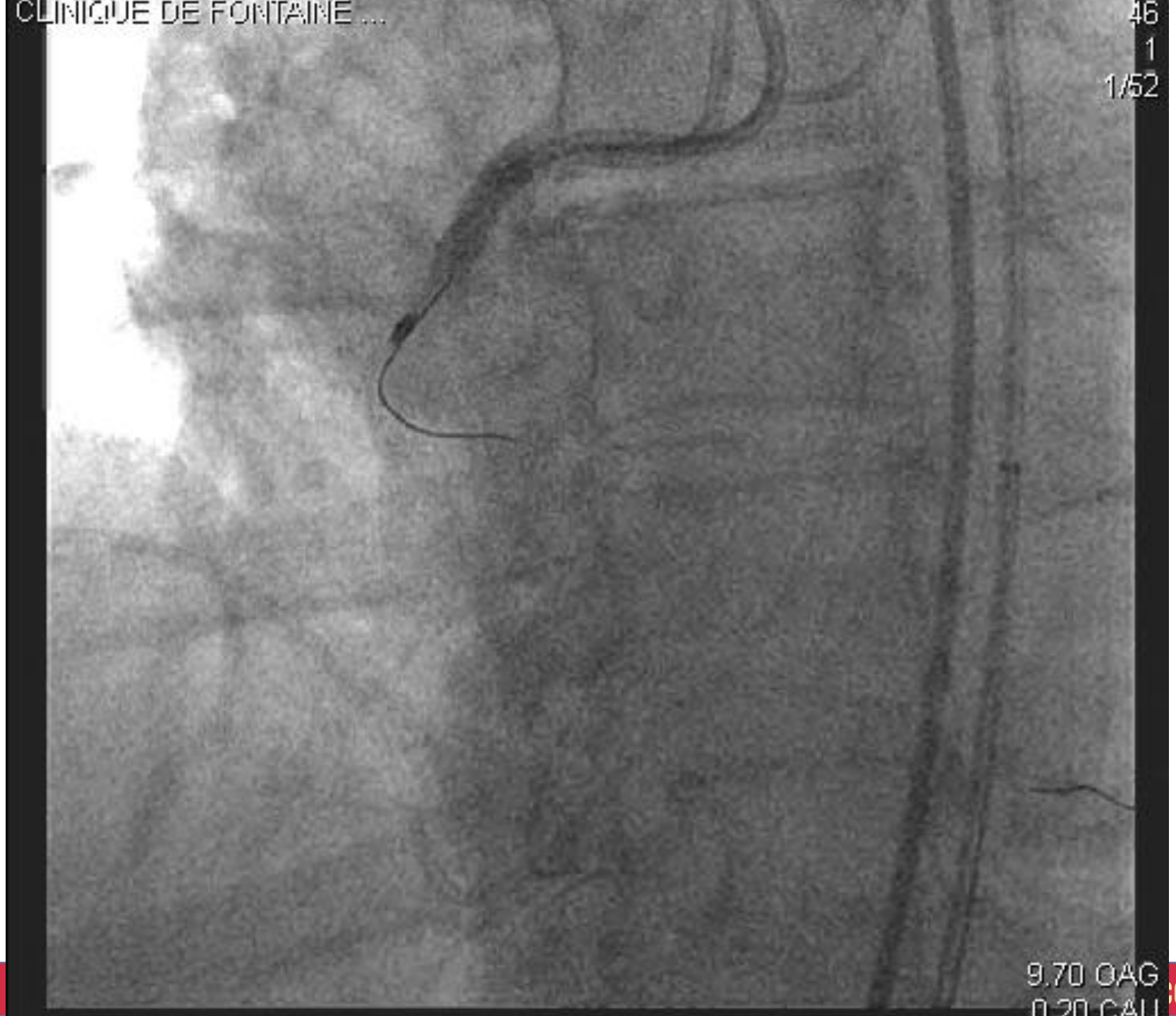

CLINIQUE DE FONTAINE ...
29
1
1/236
0.00 OAG
24.60 CRA

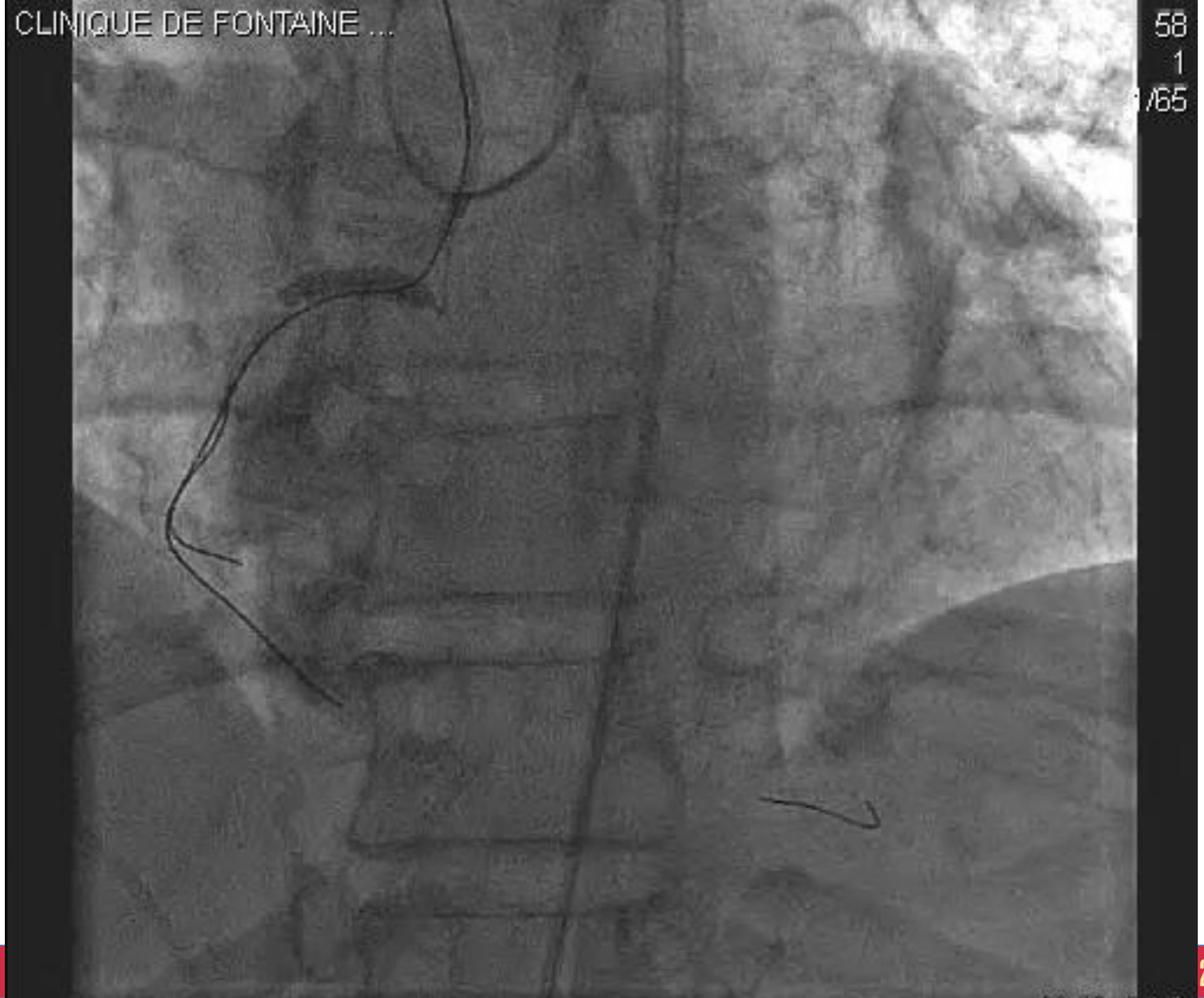

CLINIQUE DE FONTAINE ...
34
1
1/51
37.60 CAG


CLINIQUE DE FONTAINE ...
38
1
/73
0.60 OAG
4.40 CRA


CLINIQUE DE FONTAINE ...
41
1
1/301
12.60 OAG


CLINIQUE DE FONTAINE ...
45
1
1/69
9.70 OAG


CLINIQUE DE FONTAINE ...
46
1
1/52
9.70 OAG


CLINIQUE DE FONTAINE ...
58
1
/65

3

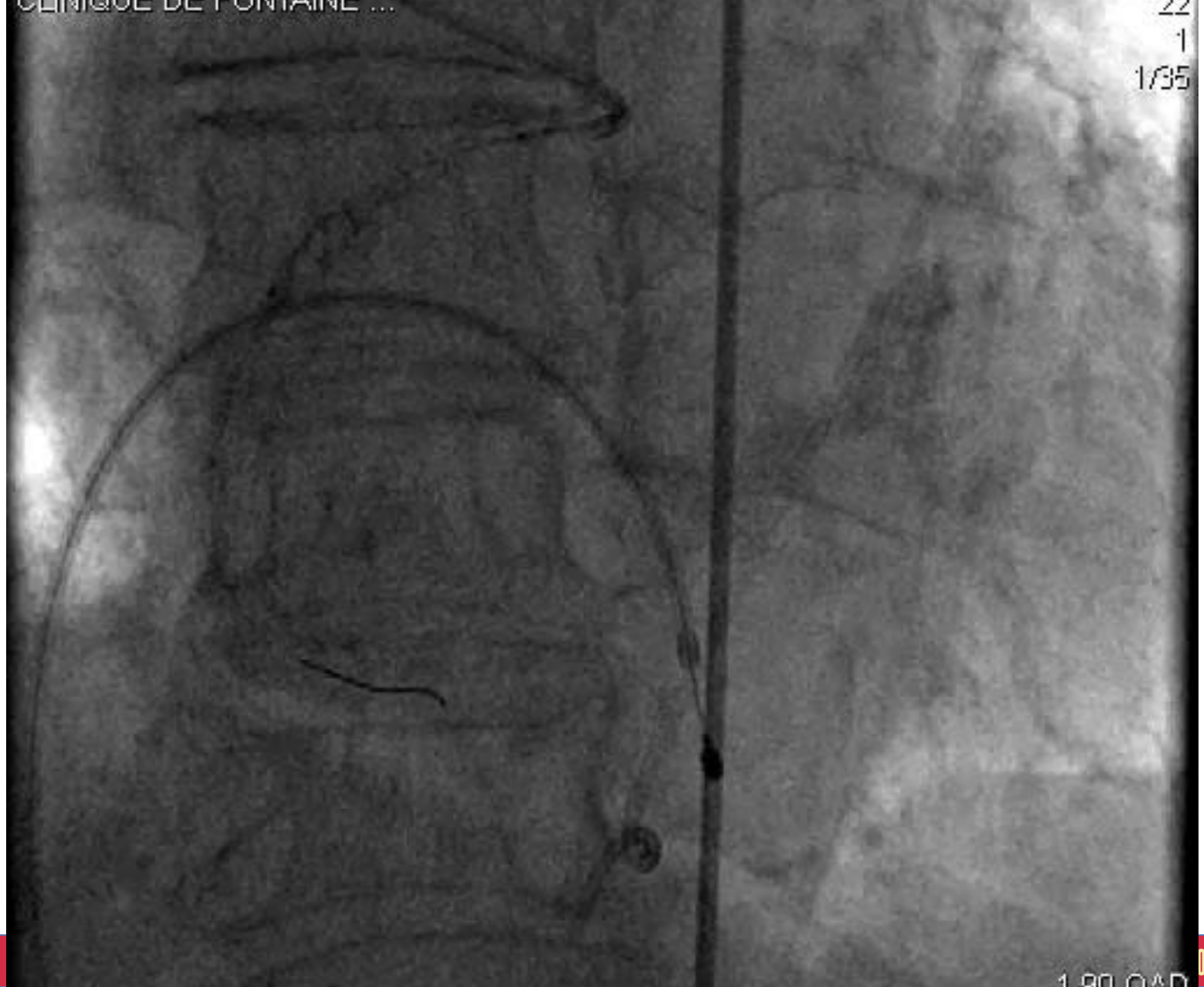
- ✓ Fraisage sur le guide…..
- ✓ Technique de retrait de fraise bloquée : avant de tirer, amener un cathéter type Guidzilla au contact
- ✓ La fuite responsable de tamponnade est peut être rétrograde…

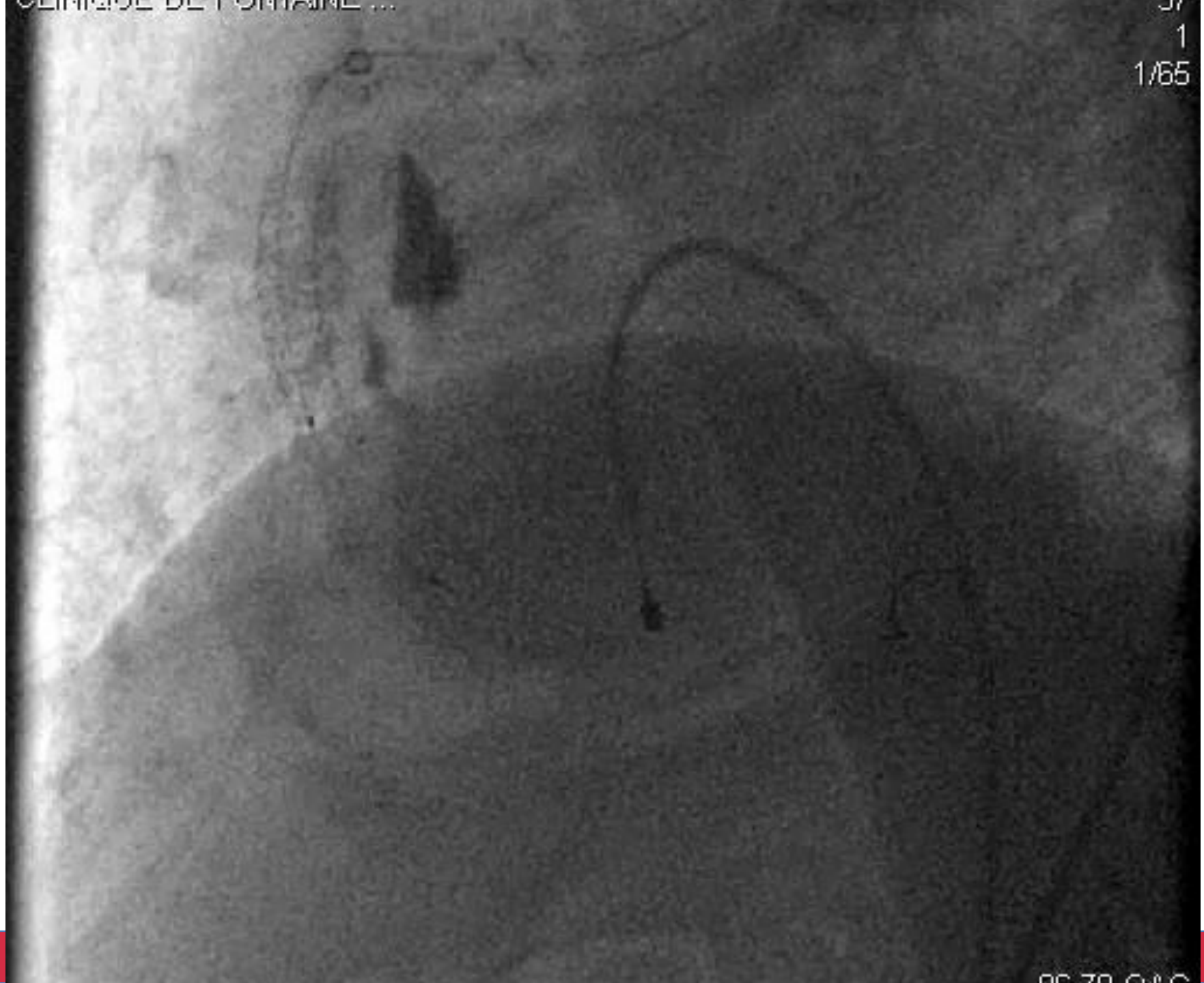
4

FRAISAGE de taille suffisante?


1
1/111


CLINIQUE DE FONTAINE ...
16
1
1/34


CLINIQUE DE FONTAINE ...
22
1
1/35


1
1/65

4

- ✓ Fraise finale de calibre cohérent avec le diamètre de l'artère traitée

- ✓ Optimisation oui, mais jusqu'à quel point?

- ✓ Tt médical ?

  Prudence chez les Nonagénaires….

5

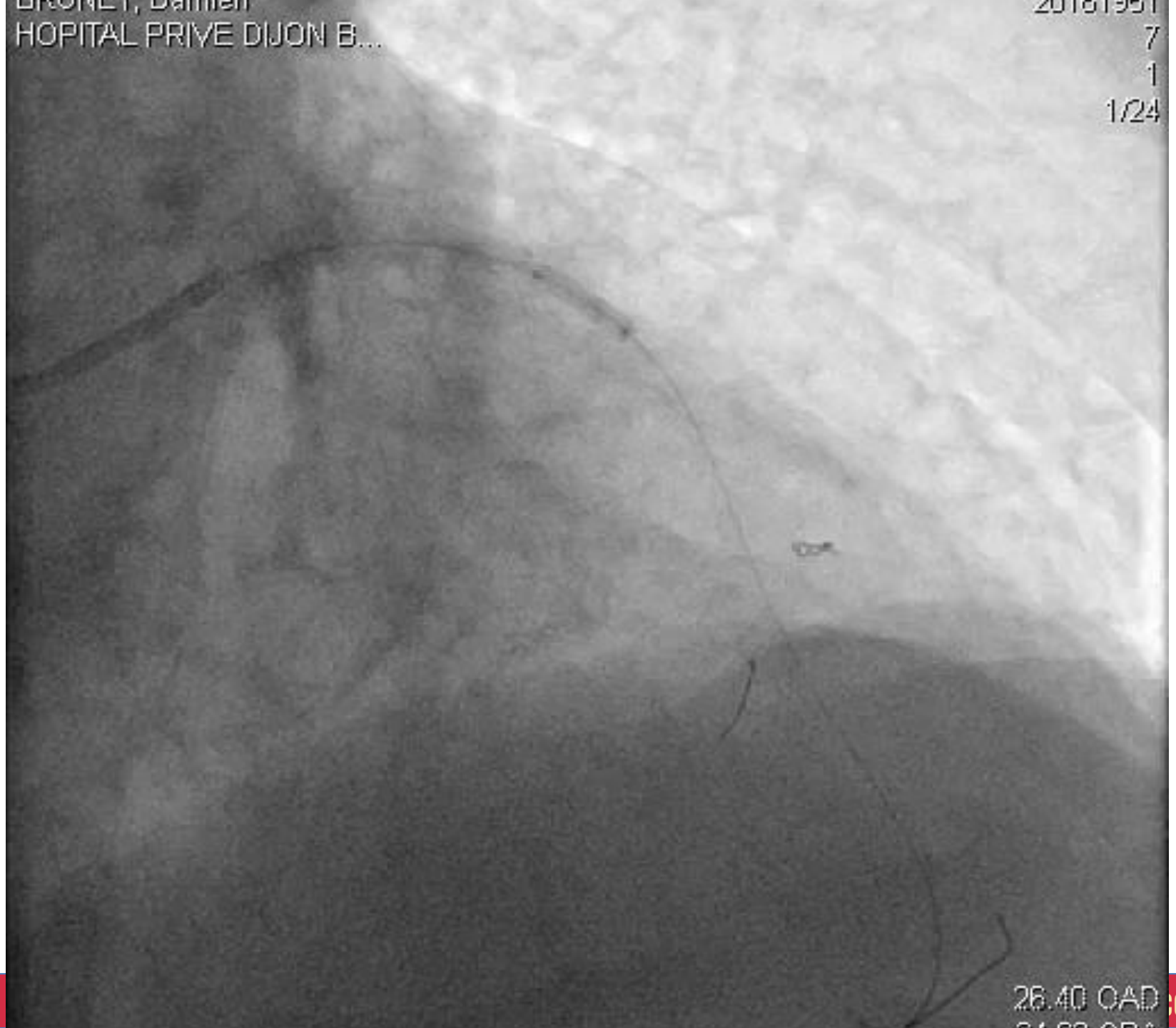
Ou est le guide?


HOPITAL PRIVE DIJON B...
1
1
1/74
26.40 OAD
24.60 CRA


HOPITAL PRIVE DIJON B...
2
1
1/351
28.40 OAD


BRUNET, Damien
HOPITAL PRIVE DIJON B...
20181951
3
1
1/138


BRUNET, Damien
HOPITAL PRIVE DIJON B...
20181951
4
1
1/826


HOPITAL PRIVE DIJON B...
7
1
1/24
26.40 CAD


BRUNET, Damien
HOPITAL PRIVE DIJON B...
20181951
14
1
1/70
26.40 OAD

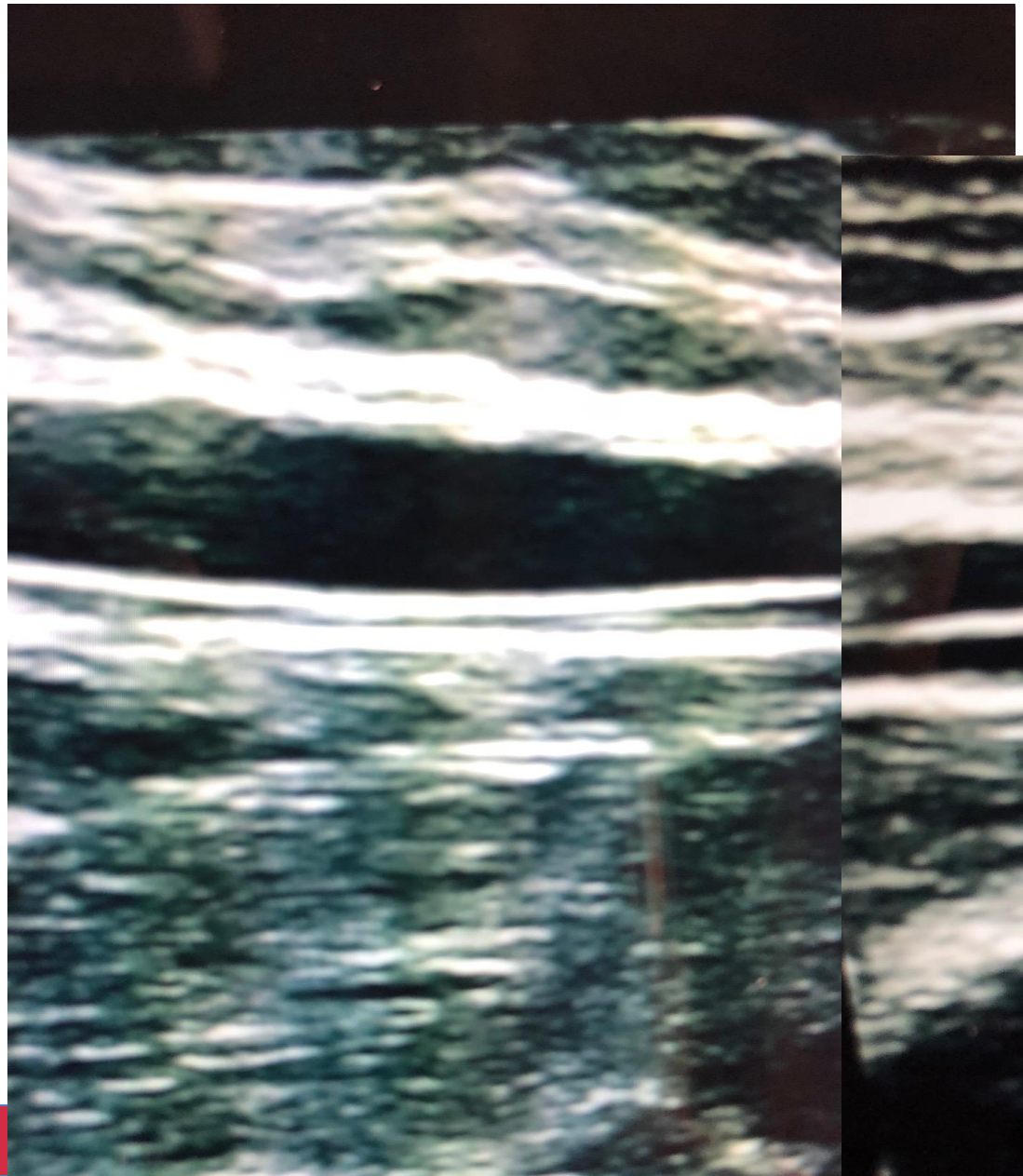

BRUNET, Damien
HOPITAL PRIVE DIJON B...
20181951
15
1
1/73

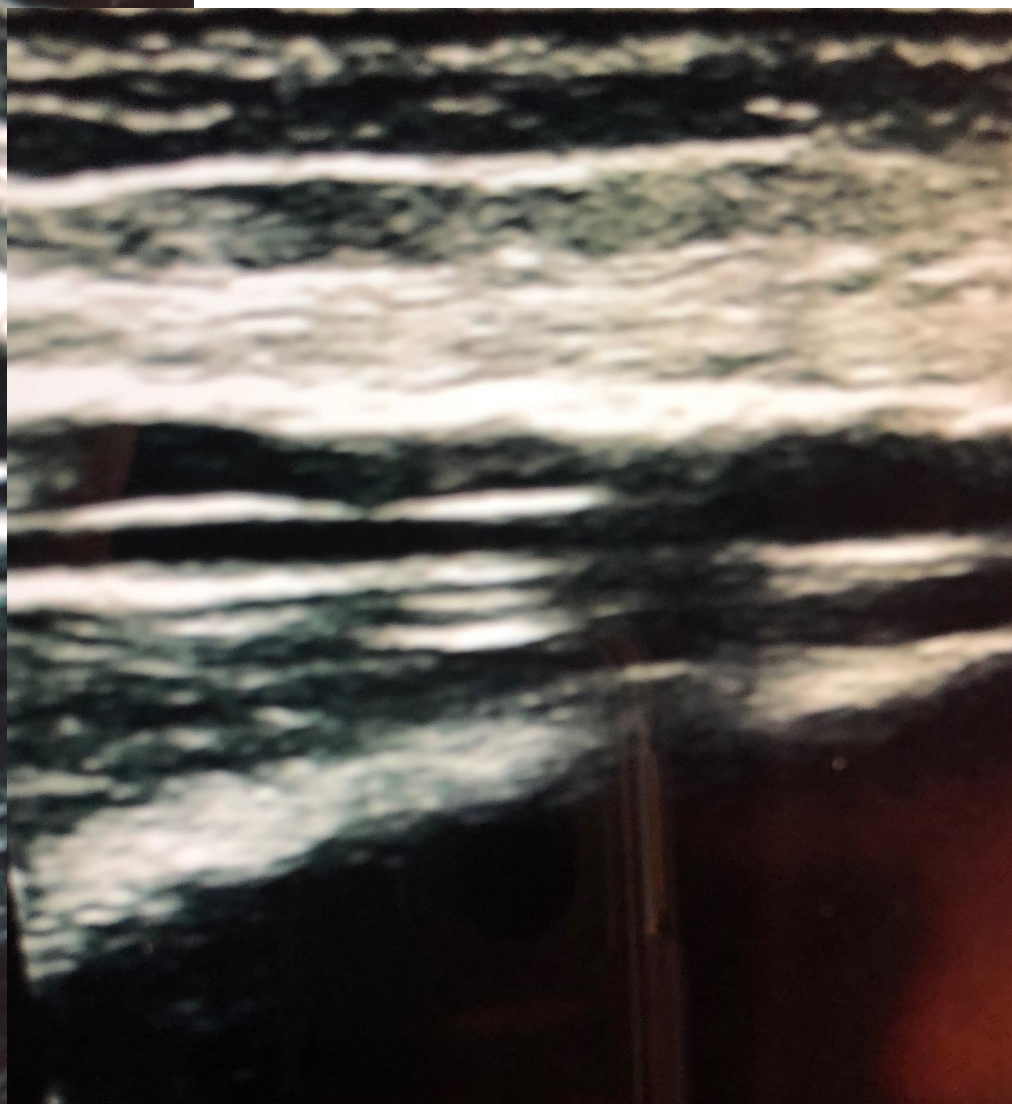
6

- ✓ Ne pas laisser de guide ‘trappé’ en distalité, léger retrait immédiat sur un guide trop distal

- ✓ Ne pas s’arrêter en si bon chemin ??!!

Ou est le guide?





6

De quoi est entourée la lésion ?

6

Angle supérieur à 90° immédiatement en amont de la lésion a traiter :

- ✓ Contre indication relative au Rota?
- ✓ Retrait moins important de la fraise pour le ‘picorage’

Le 'Pire' du Rotablator

Conclusion

- ✓ Identifier immédiatement une 'sortie de guide '
- ✓ Fraisage adapté aux 'Lésions en tandem'

Conclusion 2

- ✓ Un ‘fraisage’ ne protège pas en lui seul des excès d’optimisation
- ✓ ‘Guide trappé’ ‘guide cassé’ (‘guide laissé’)
- ✓ Angulation 90° ou plus immédiatement avant la lésion = perforation

Le Rota ?

‘c’est pas si pire’ que ça!

Philippe Brunel 2018

DÉCLARATION DE LIENS D'INTÉRÊT AVEC LA PRÉSENTATION

Intervenant : Philippe BRUNEL, Dijon

☑ Je déclare les liens d'intérêt suivants :

Honoraires : boston, BSCI

"la seule chose exacte
dans le journal, c'est la date"

Coluche