

# L'athérectomie orbitale: un nouvel outil enfin disponible!

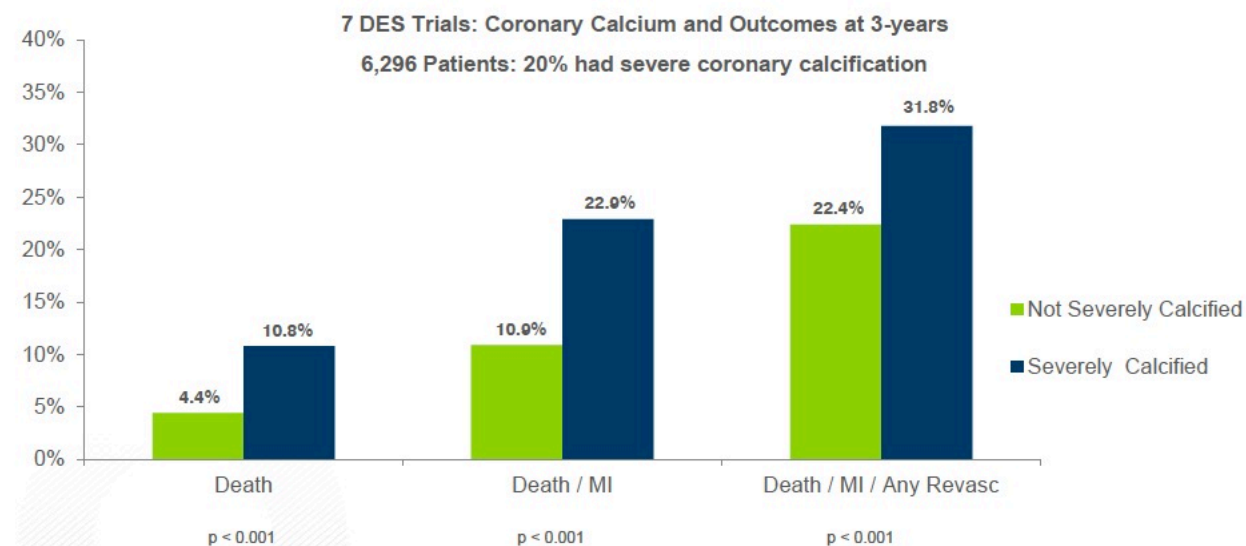
# La problématique des lésions calcifiées

Fréquence: 6-20%

Sous-estimation angio

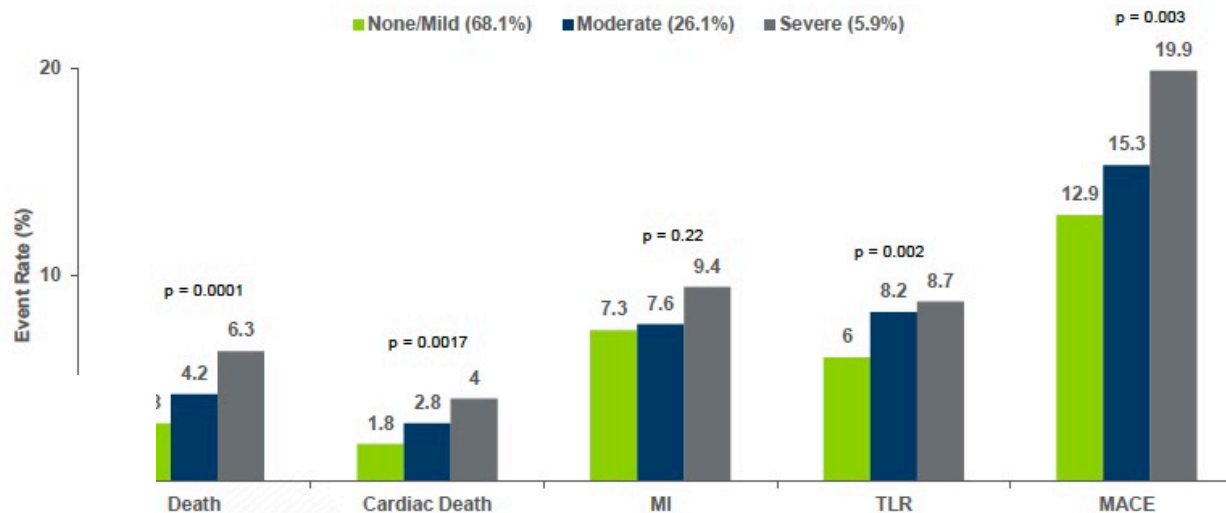
Facteurs associés connus

Facteur de mauvais pronostic



*Bourantas Heart. 2014;100(15):1158-64*

Calcium Severity Associated with Significantly Increased MACE at One Year<sup>1</sup>



*Généreux J Am Coll Cardiol. 2014;63(18):1845-54*

# La problématique des lésions calcifiées

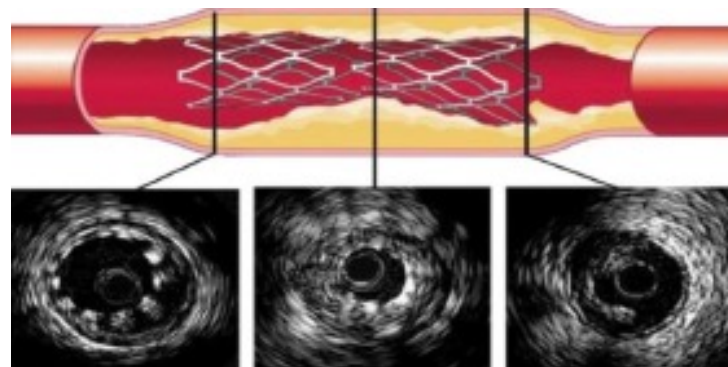
Risque de perforation, dissection

Difficulté d'implantation du stent

Mauvaise expansion du stent

Malapposition du stent >> thrombose de stent  
resténose

Inadéquate distribution du principe actif



# Comment ça marche ?

Double mécanisme d'action

## *Athérectomie orbitale*

$$\text{Force centrifuge } F = \frac{m \cdot V^2}{R}$$

Action bi-directionnelle elliptique

>> réduction plaque

Couronne sertie de diamants

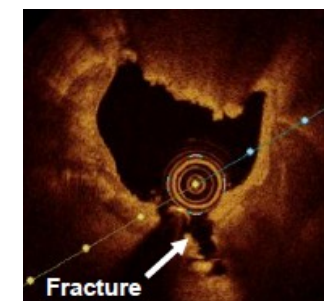
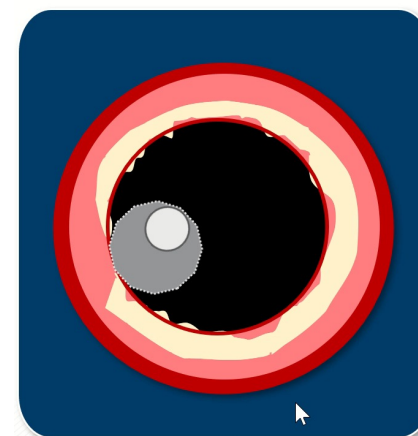
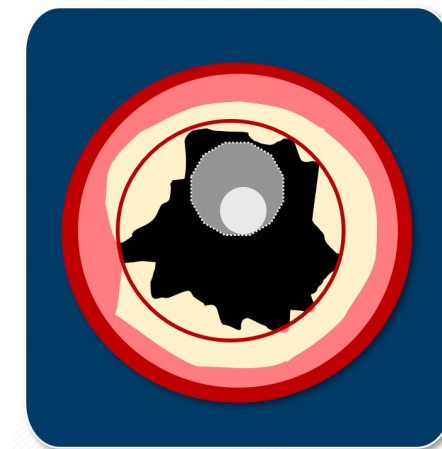
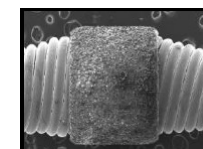
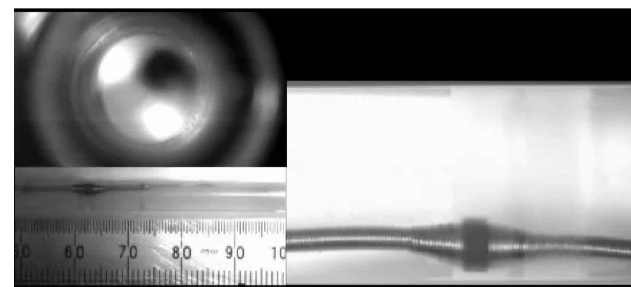
2 vitesses: 80 000 / 120 000 T/mn

2.5 – 4 mm

## *Modification de la plaque*

Forces pulsatiles

Action en profondeur



# Les composants



# La pompe et le lubrifiant



20 ml of *ViperSlide™* per liter of saline

Ingredient	Amount
Soybean Oil	10%
Egg Yolk Phospholipids	1.2%
Glycerin	2.25%
Sodium Hydroxide (pH range is 6.0 to 8.9)	Quantity Sufficient
Water for Injection	Quantity Sufficient

**Warning:** Never operate the OAD without normal saline and *ViperSlide™* lubricant

# Le guide: ViperWire Advance

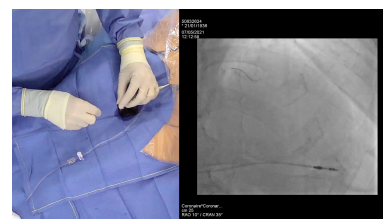
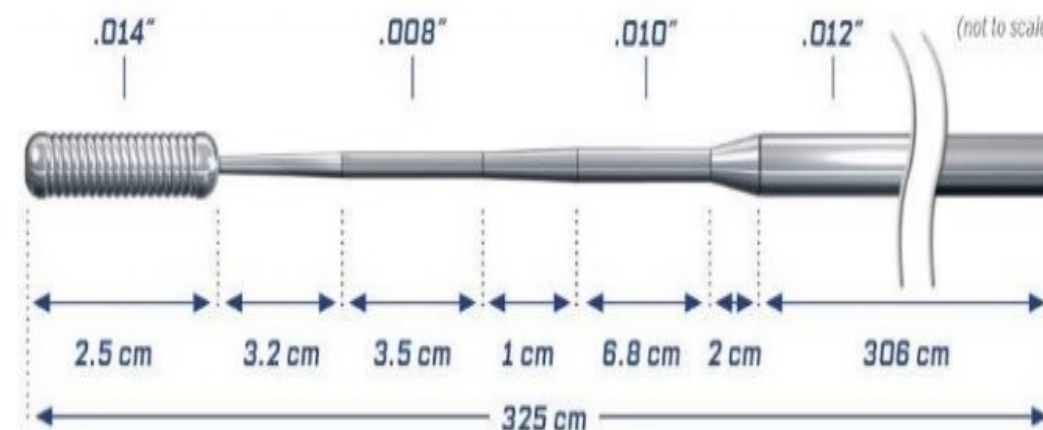
Core Wire	Support Coil	Tip	Coating	Spring Tip Load	Dimensions
-----------	--------------	-----	---------	-----------------	------------

## ViperWire Advance™ with Flex Tip

First and only Nitinol-core coronary atherectomy wire

Designed for reduced wire bias and kink resistance

Nitinol	Stainless Steel	Platinum / Tungsten	Silicone	1.0 gf
---------	-----------------	---------------------	----------	--------

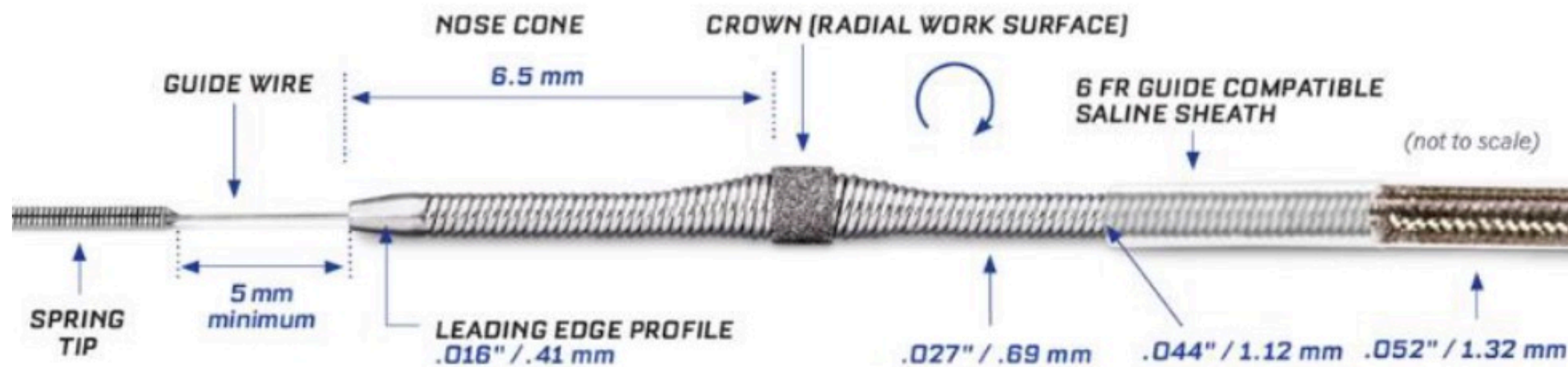


# Le système Orbital





# La couronne: 1.25 mm



# La technique

Guiding 6 Fr

Positionnement du guide en distalité

Avancement de la couronne et relâchement de la tension

Ponçage 1mm/sec

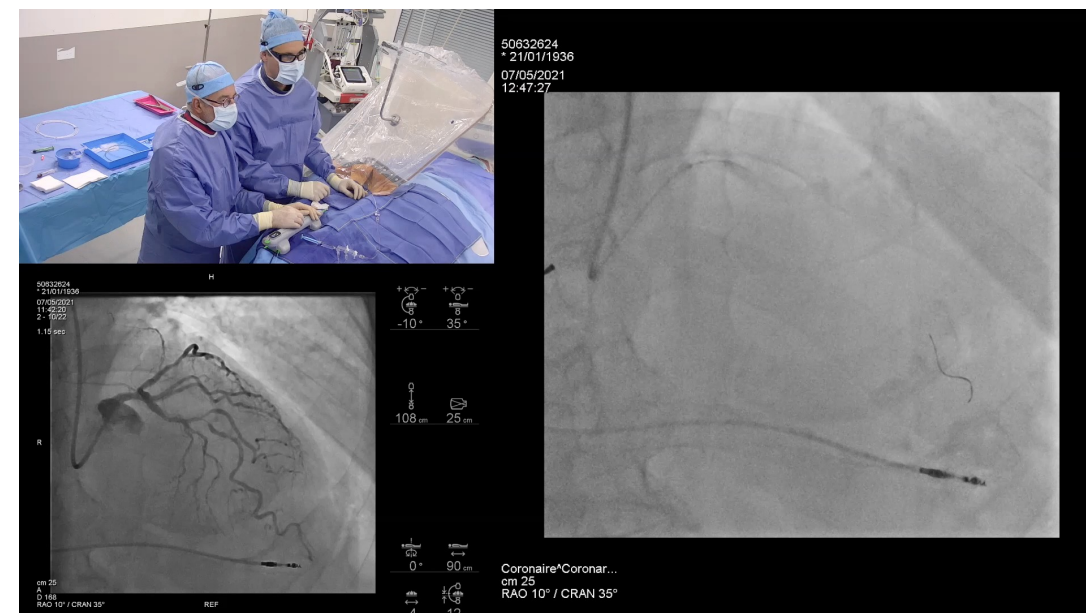
Vitesse lente +/- vitesse rapide

Run de 30 sec / période de repos

5 mn max

Retrait en GlideAssist

Evaluation





50632624  
\* 21/01/1936  
07/05/2021  
11:42:20  
2 - 10/22  
1.15 sec

H

106 cm 25 cm

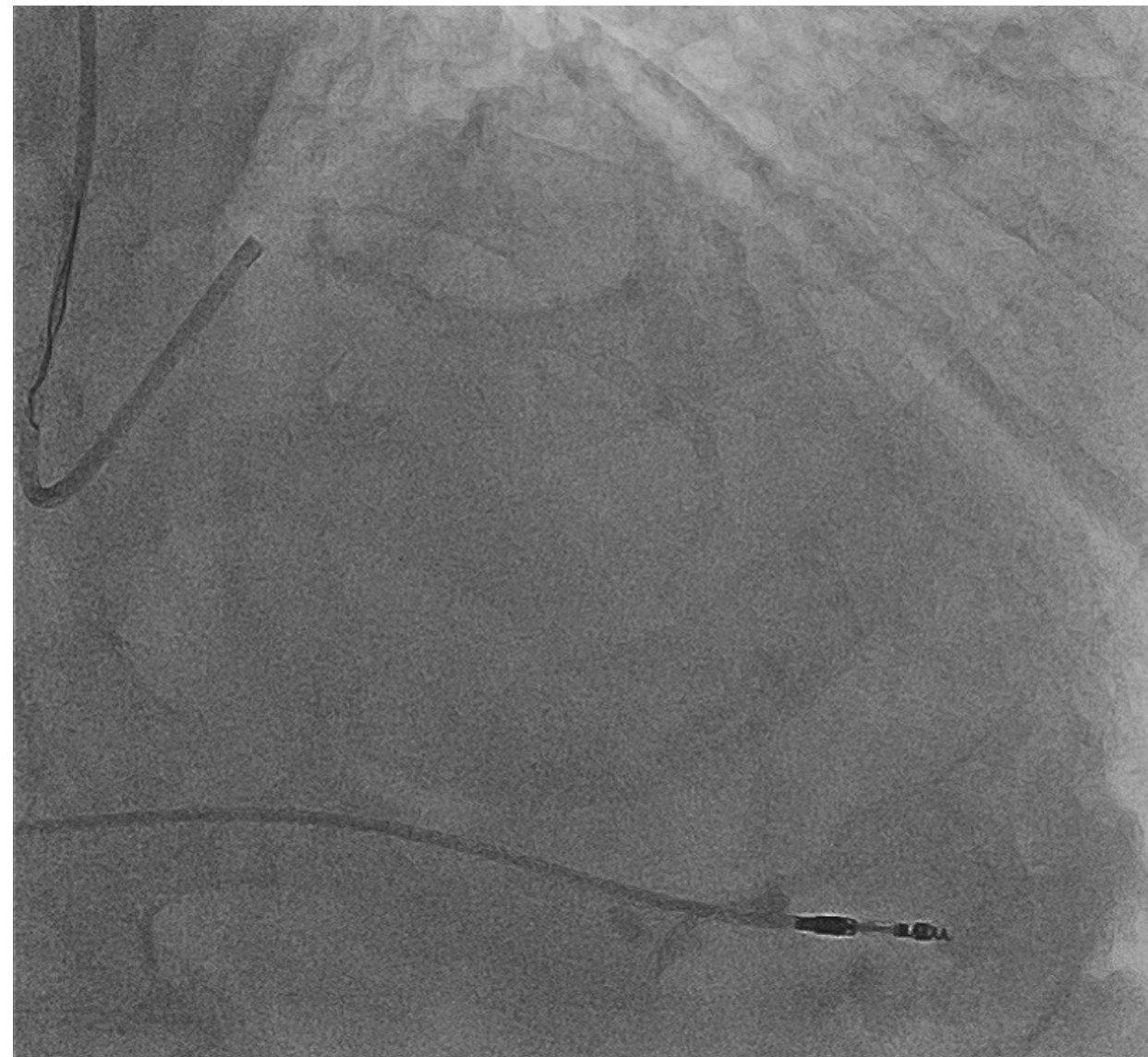
0° 90°  
4 cm -12 cm

01:31:22:06

Coronaire®Coronar...  
cm 25  
RAO 10° / CRAN 35°

cm 25  
A  
D 168  
RAO 10° / CRAN 35°  
REF

# Résultat



# Contre-indications / complications

## Contre-indications

dissection

thrombus

dysfonction VG sévère

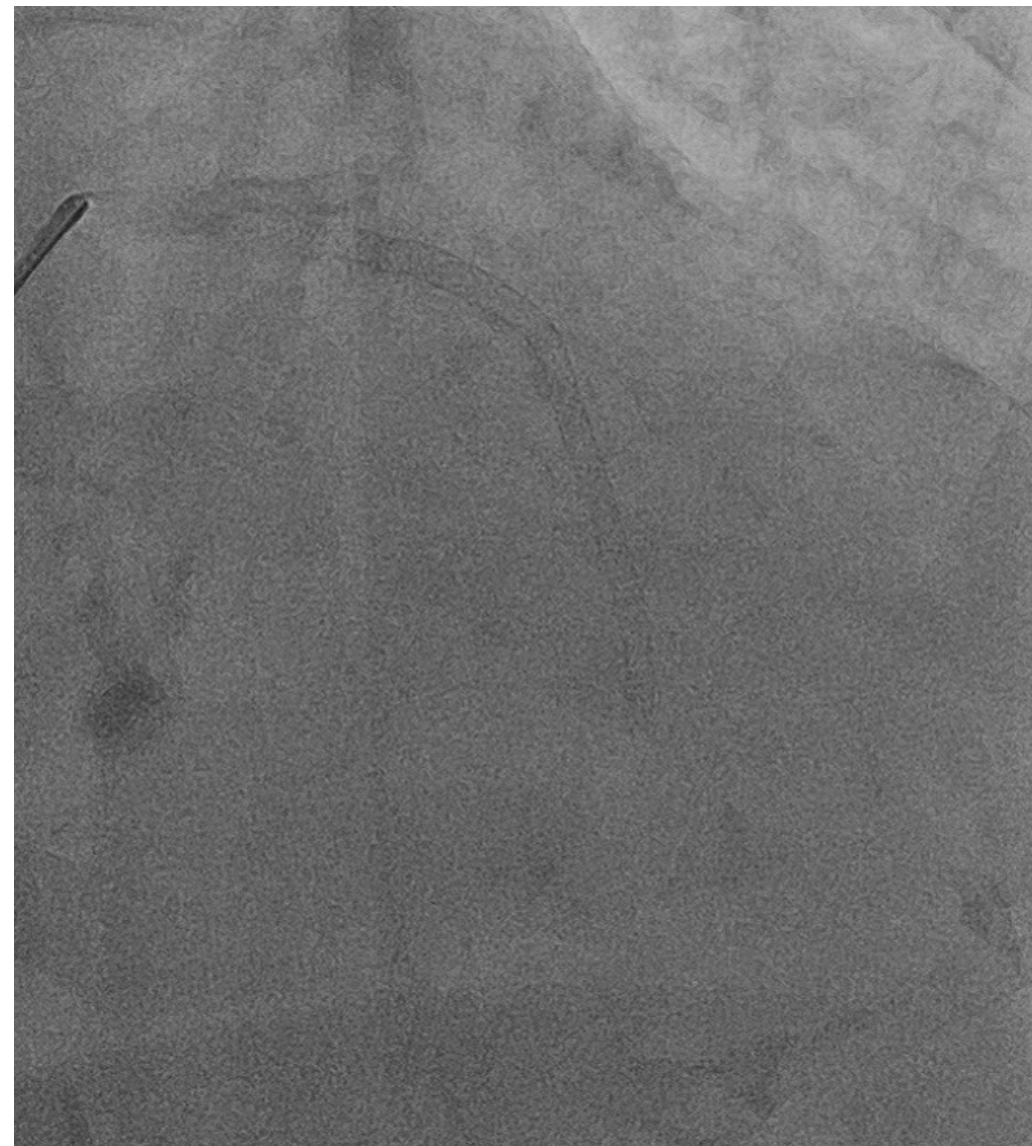
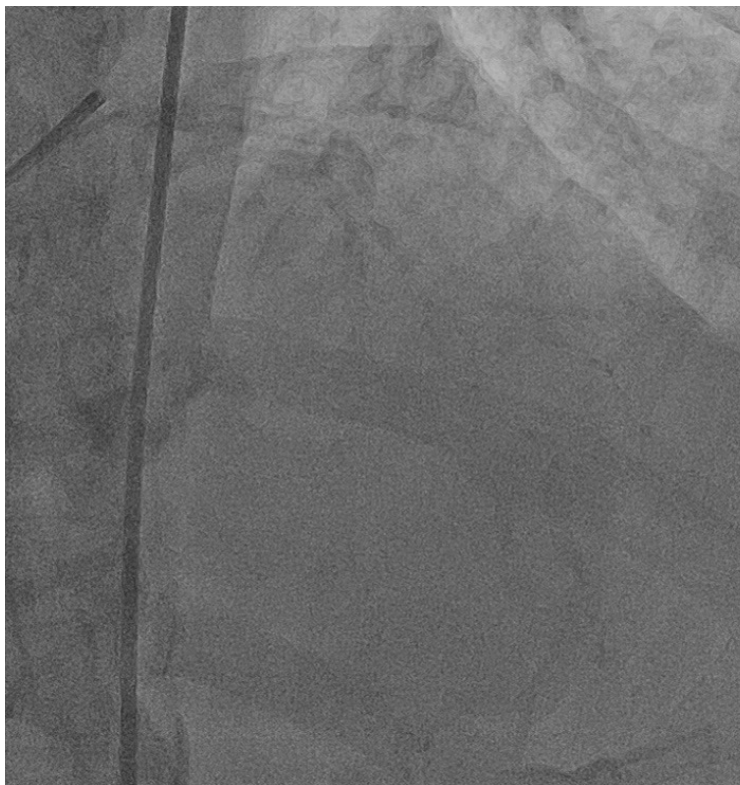
## Complications

dissection

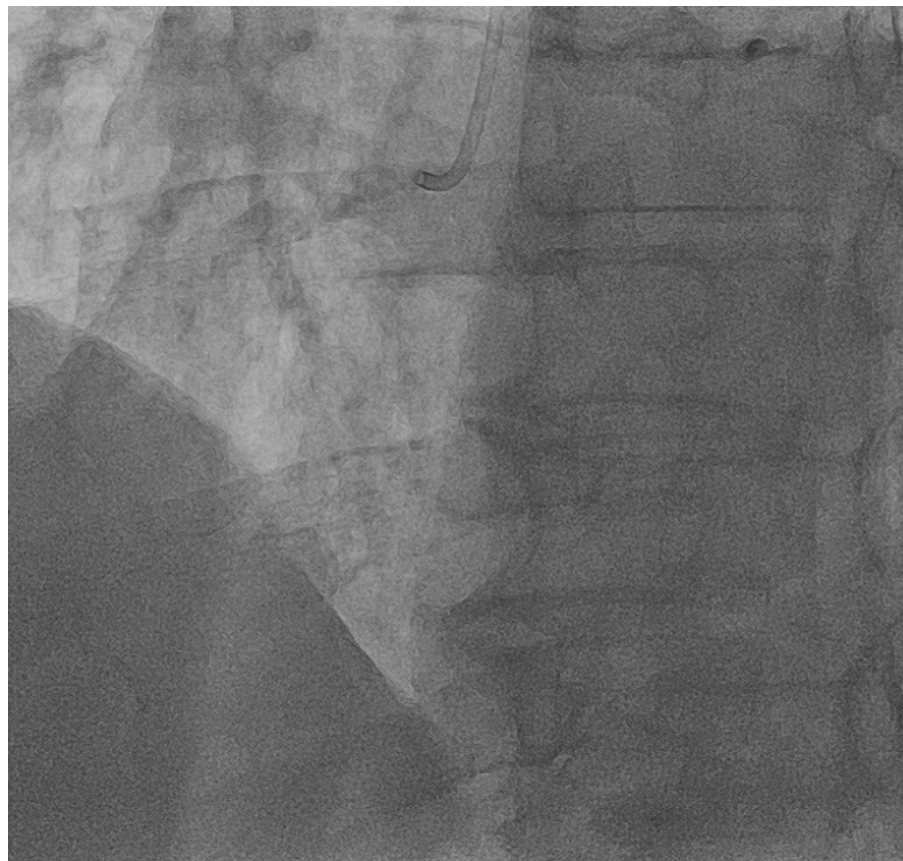
perforation

slow-flow

# Quelques exemples

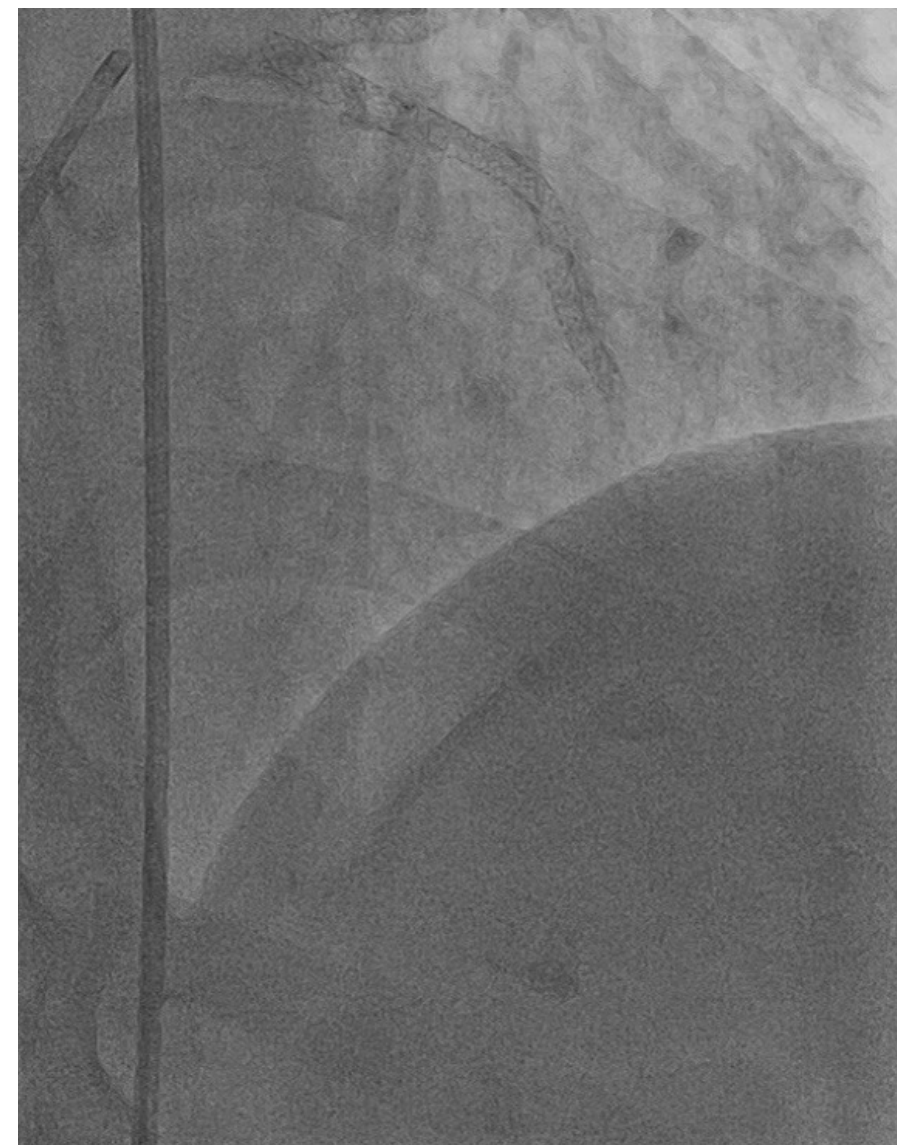
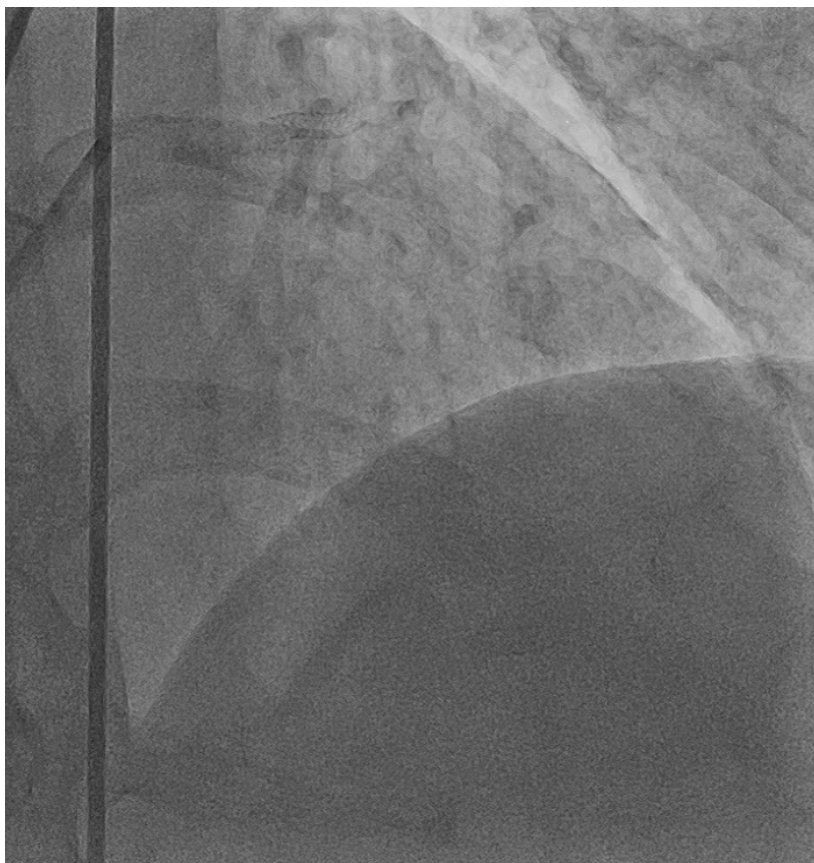


# Quelques exemples

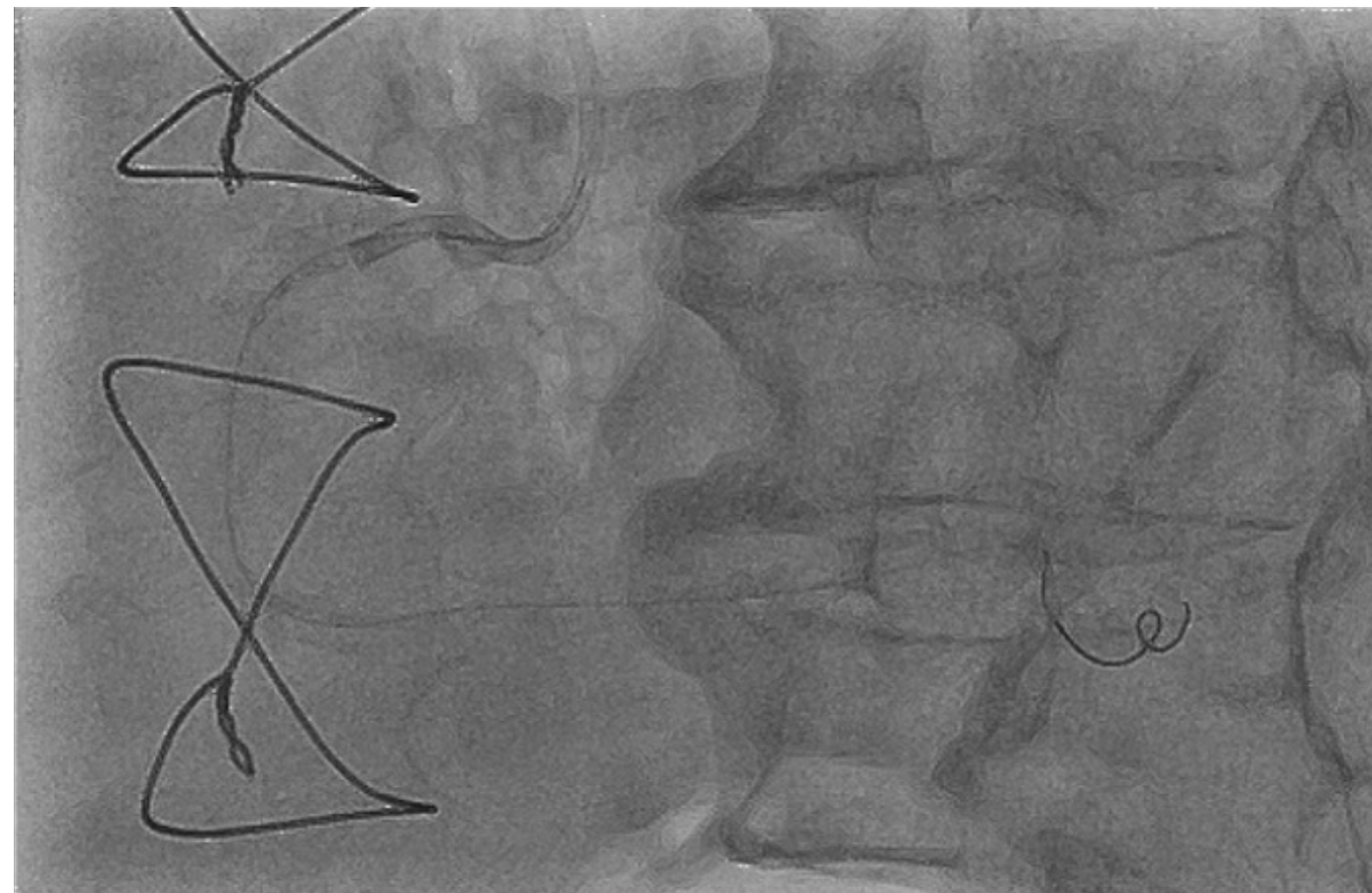
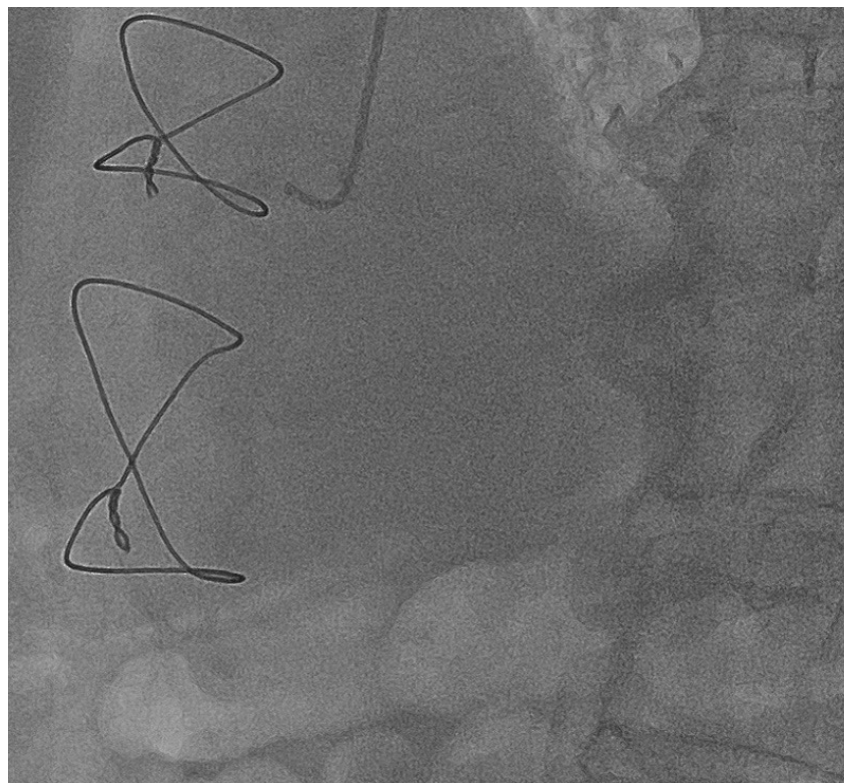




# Quelques exemples



# Quelques exemples



# Conclusions

Un nouvel outil

Double action

Primo-intention, plutôt qu'en bail-out

>> vrai changement de paradigme!

>> préparation de la lésion

Traitement des lésions calcifiées longues

Nécessité

registre à grande échelle

études comparatives