

Comment améliorer la performance des guides

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GERC

STRASBOURG



DÉCLARATION DE LIENS D'INTÉRÊT AVEC LA PRÉSENTATION

Intervenant : Prénom Nom, Ville

Je déclare les liens d'intérêt suivants :

Honoraires: Boston, Biotronik, Teleflex, Alvimedica

Pour améliorer la performance:

- Connaître les guides que l'on utilise
- Classes et propriétés de guides
- Connaître les techniques de manipulation
- Y a t il possibilité de les aider?

Connaissance des différents guides

Longueur totale: 182-185 cm



Extrémité distale

Longueur: 40 cm

Ame centrale: Acier ou Nitinol
Enveloppe externe: Spirales ou Polymère
Revêtement lubrifiant: Silicone ou Hydrophile



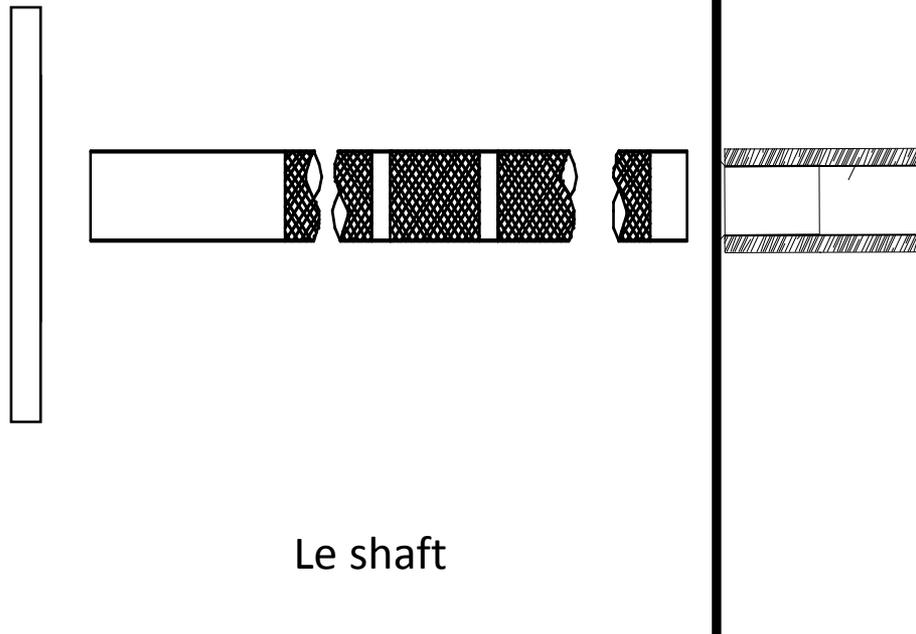
3 composants essentiels du guide

Shaft

Longueur: 145 cm
Matériau: Acier (pour le "push")
Revêtement : PTFE (Téflon)

Extension

0.014"



Le shaft

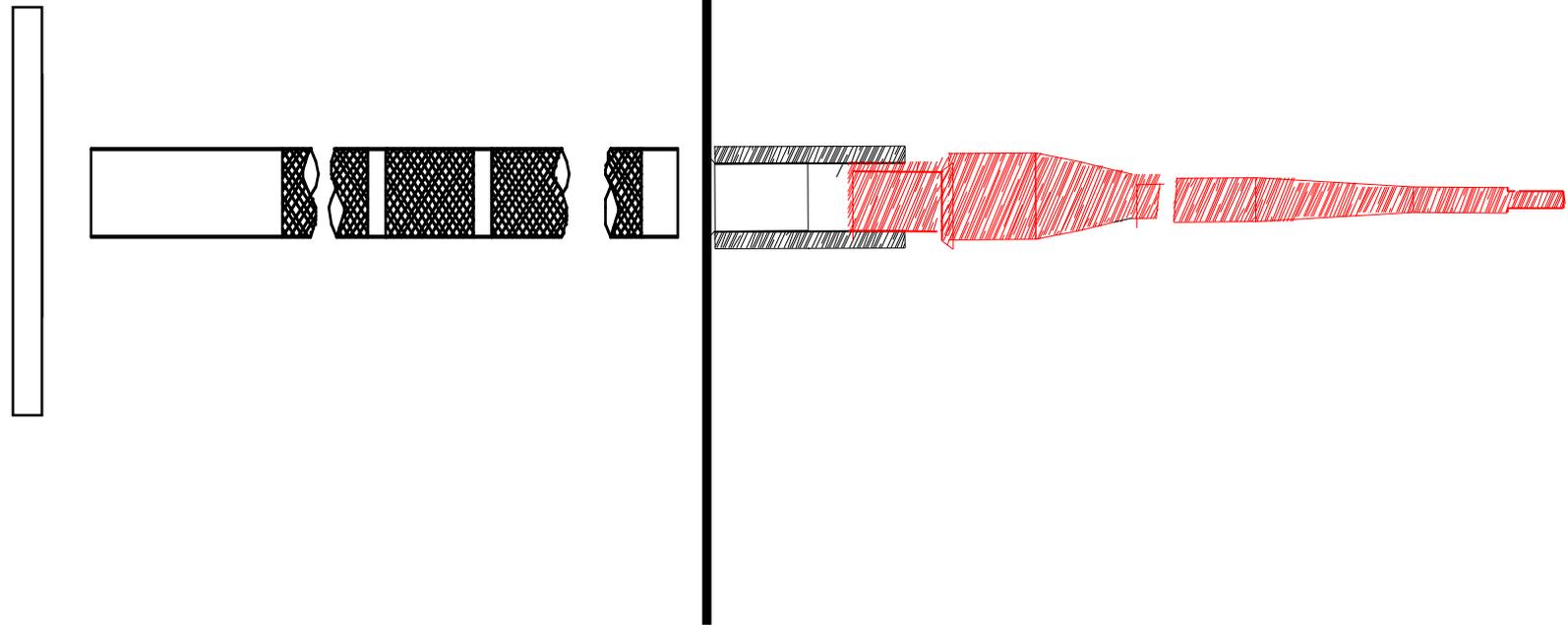
30 – 40 cm distaux

A red double-headed arrow is positioned below the text, spanning a significant portion of the right side of the diagram to indicate the distance.

30 – 40 cm distaux

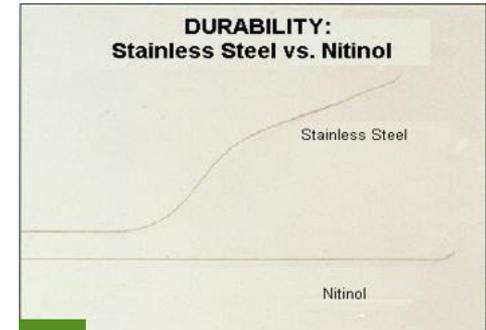


L' âme centrale

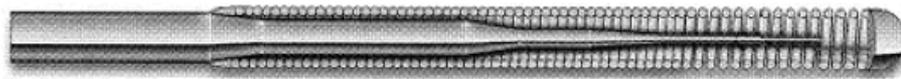


L'âme centrale

Matériau de l'âme

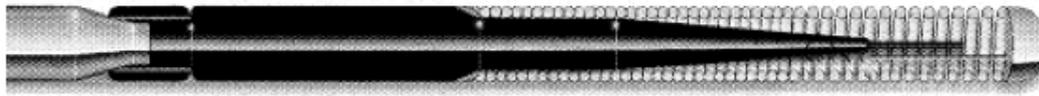


- Acier Inoxydable : matériau original standard



Sion blue
Samurai
Hornet 14

- Elastinite TM / Nitinol (=Nickel + Titane) pour la flexibilité



BMW, BHW

- Durasteel TM : Acier Inoxydable 304V et Hyten pour la durabilité

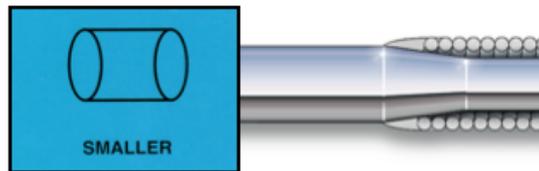


Whisper, Pilot

L'âme centrale

Le diamètre

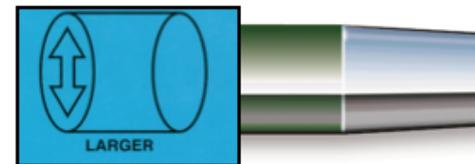
- Le diamètre de l'âme de chaque guide est conçu pour une application clinique spécifique.



Diamètre fin = Plus de flexibilité

Pour améliorer la progression
et la flexibilité

BMW, Traverse
Whisper



Diamètre large = Support & Torque

Support renforcé pour permettre
la mise en place du dispositif et
le redressement du vaisseau
Matériau supplémentaire
pour un torque exceptionnel

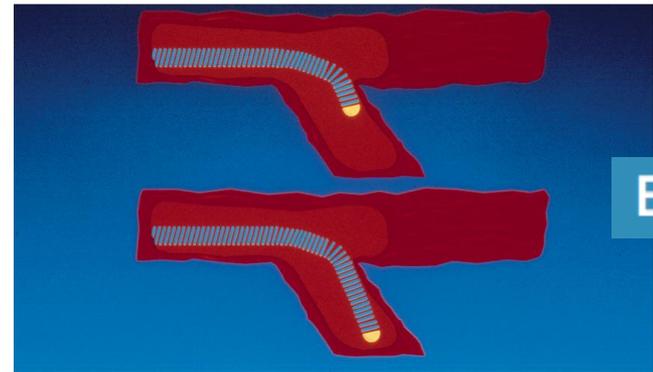
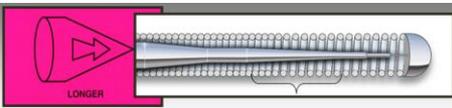
BHW, WHISPER ES

L'âme centrale

L'effilement

Effilements longs

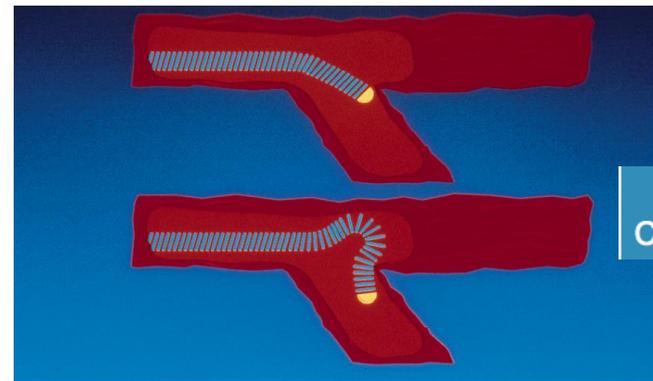
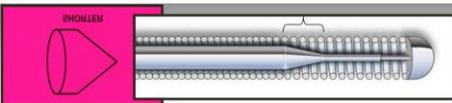
- Excellent accès aux vaisseaux
- Le guide suit tout seul les courbures
- Grande flexibilité



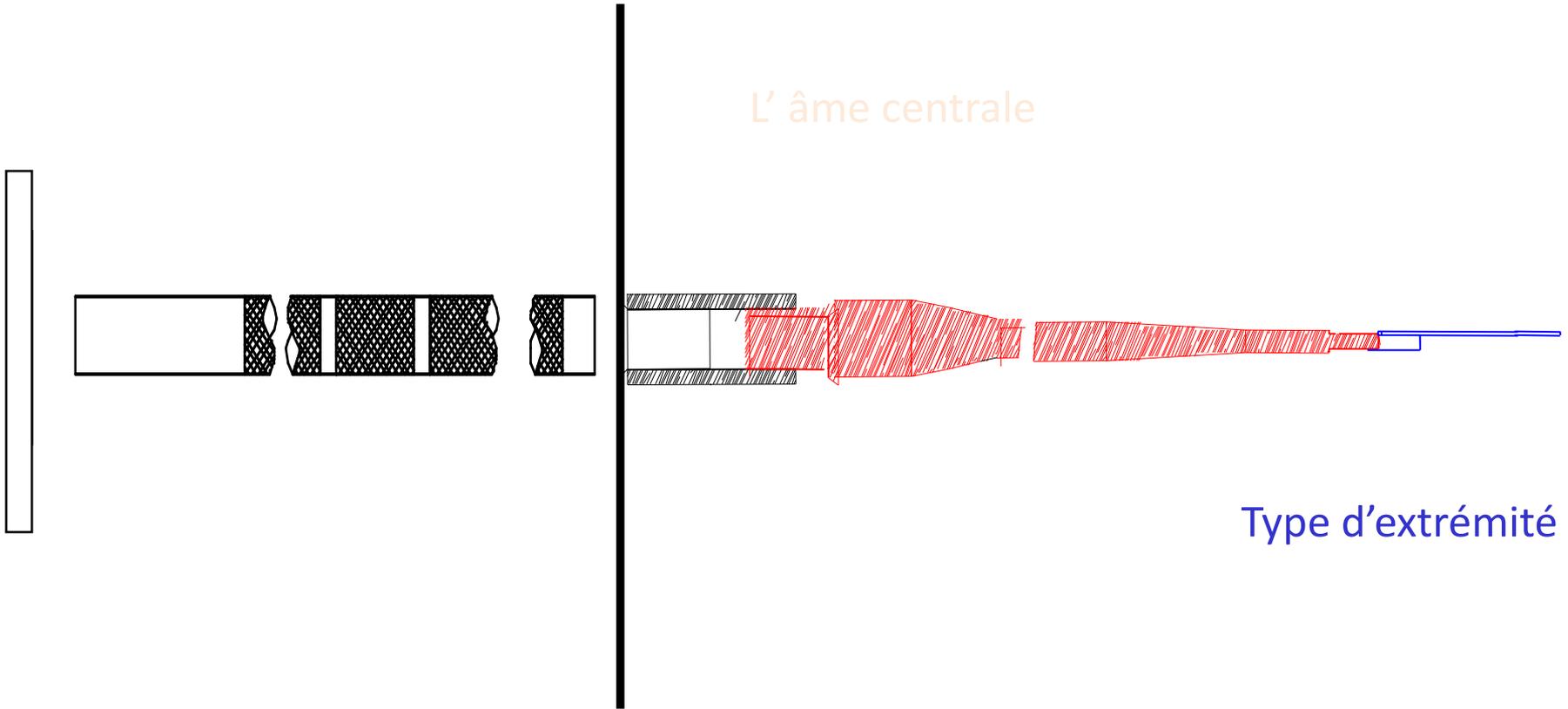
BMW

Effilements courts

- Plus de support et de torque
- Plus tendance à prolapsus



BHW
CROSS-IT

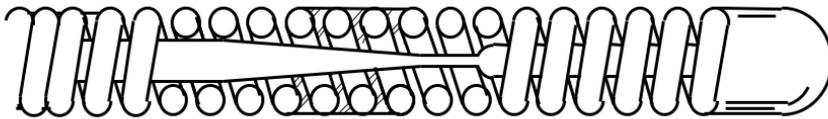


L' âme centrale

Type d'extrémité

2) Type d'extrémité

Core-to-Tip



Sensation tactile et contrôle

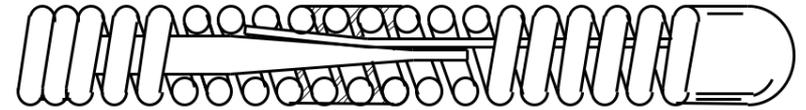
= Extension de l'âme

Extrémité plus rigide

Meilleur contrôle de l'extrémité

Prowater
Run-through
Pilot
Whisper
Hornet 14

Shaping Ribbon



Rétention de forme et atraumaticité

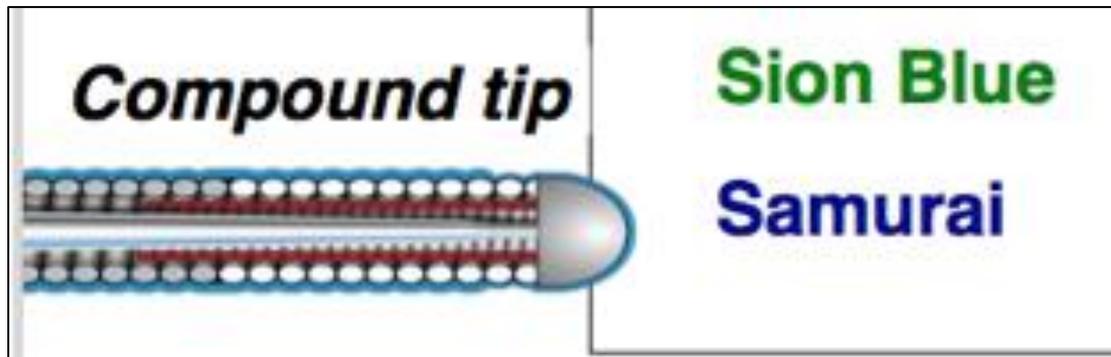
= Pièce d'acier inoxydable

Extrémité plus souple

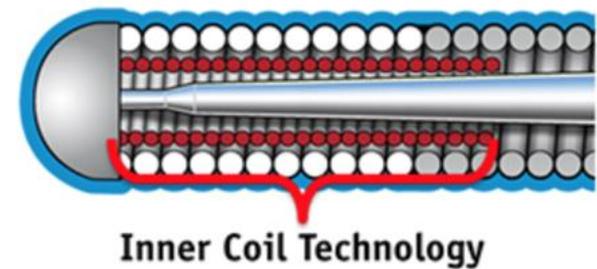
Atraumaticité

BHW
BMW
Wiggle

2) Type d'extrémité



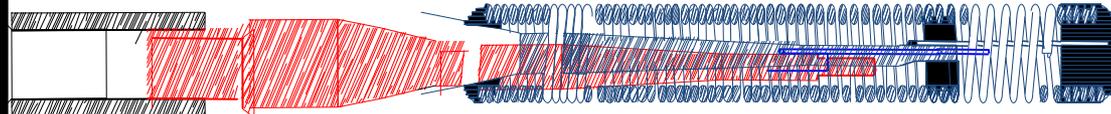
=« bobine » donnant durabilité et maintien de forme au Tip et une excellente torquabilité





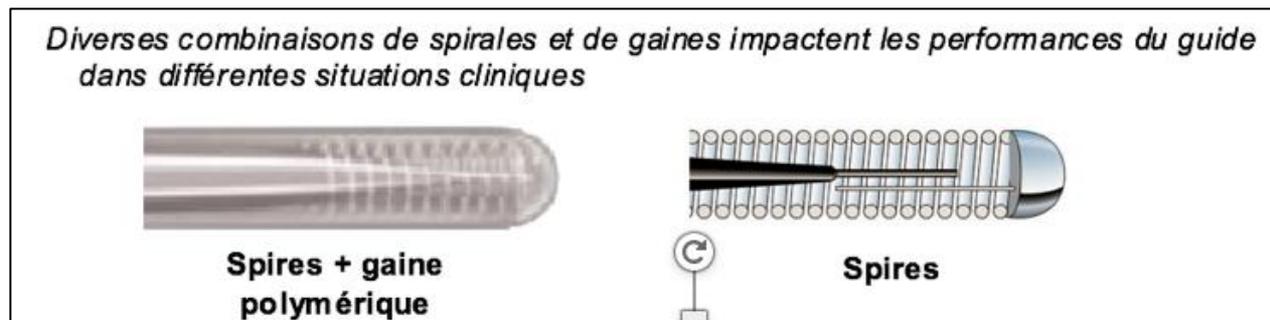
L'âme centrale

Spires ou polymère



Type d'extrémité

- **Les spires** garantissent la sensation tactile et la radio-opacité et maintiennent les diamètres globaux constants (avec ou sans joints).
- **Les Gaines polymériques** (plastique) offrent des surfaces lisses qui permettent de réduire le diamètre de l'âme apportant ainsi de la souplesse



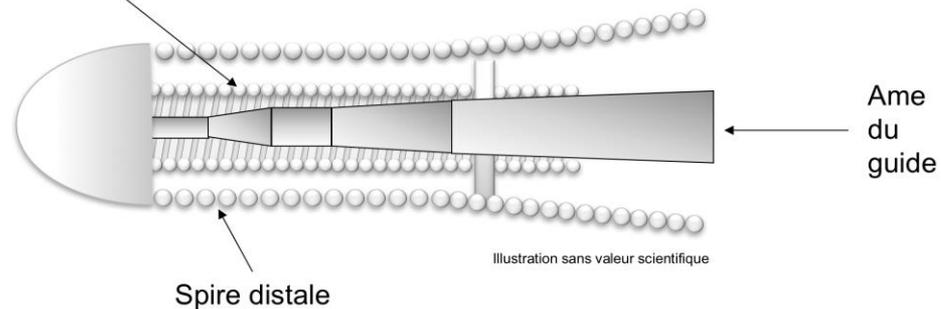
Double spire

Technologie SION TECC: design à double spire

ASAHI
Gaia
PTCA-GUIDE-WIRE

Spire intérieure (ACT ONE®)

SION TECC
Leading to the NEXT



→ Objectif: contrôle du torque et sélectivité de l'extrémité distale

Distributeur officiel en France:

 BIOSENSORS
INTERNATIONAL™

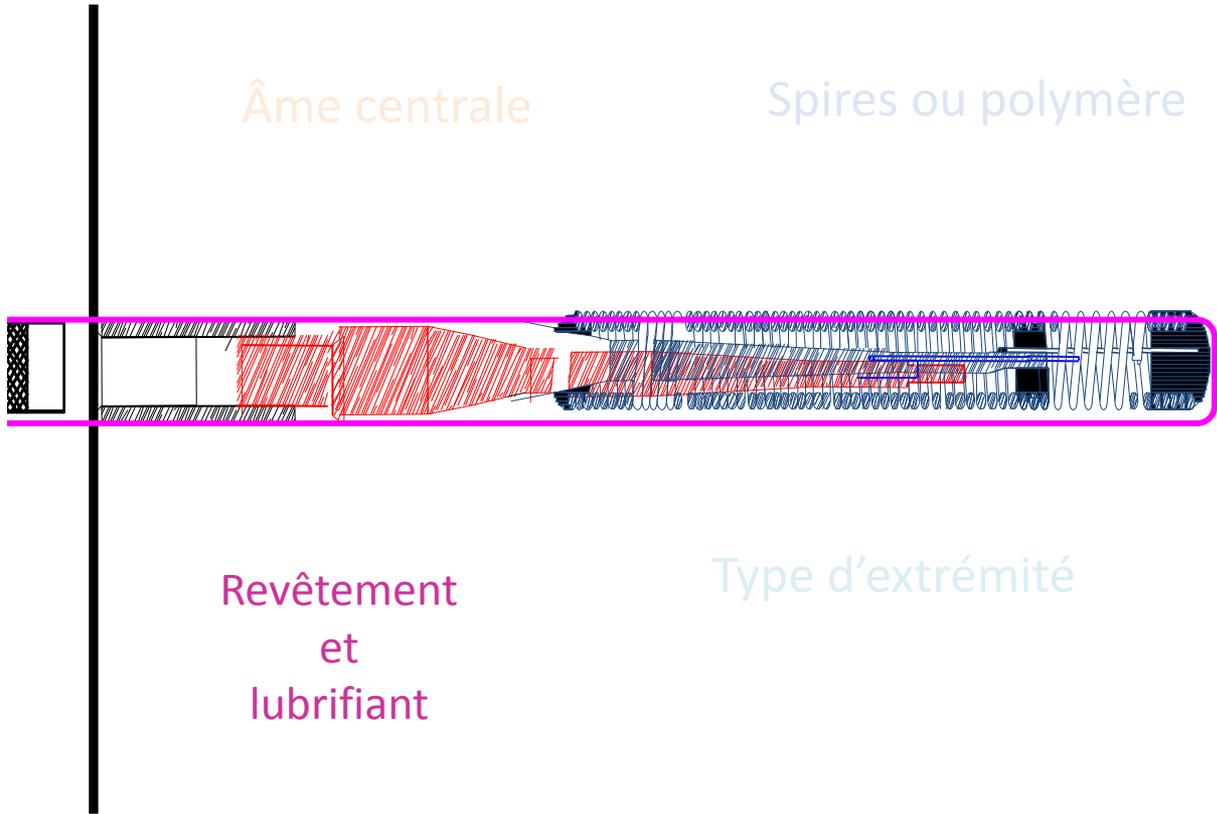
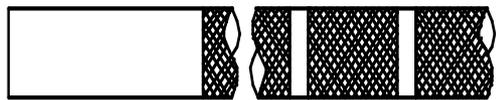
Your dreams. Woven together.
ASAHI INTECC

Polymérique

- Fielder
- Fighter
- Pilot
- Sion black



**Moins de contrôle
Plus de glisse**



Âme centrale

Spires ou polymère

Revêtement
et
lubrifiant

Type d'extrémité

- Les revêtements sont conçus pour réduire les frictions et améliorer la progression du guide
- 3 catégories de combinaison de revêtement:
 - **Guides Hydrophile:**
 - Revêtement hydrophile et spires pour le contrôle de la glisse: BMW
 - **Guides Polymériques:**
 - Revêtement hydrophile et spires + Gaine polymérique apporte de la glisse (anatomie tortueuse ou lésions serrées)
 - **Guides Hydrophobe:**
 - Revêtement hydrophobe et spires: moins de glisse mais plus de contrôle ponction cap proximale CTO

Lubricity

No Coating

Hydrophobic Coating

Hydrophilic Coating

Polymer Cover with
Hydrophilic Coating

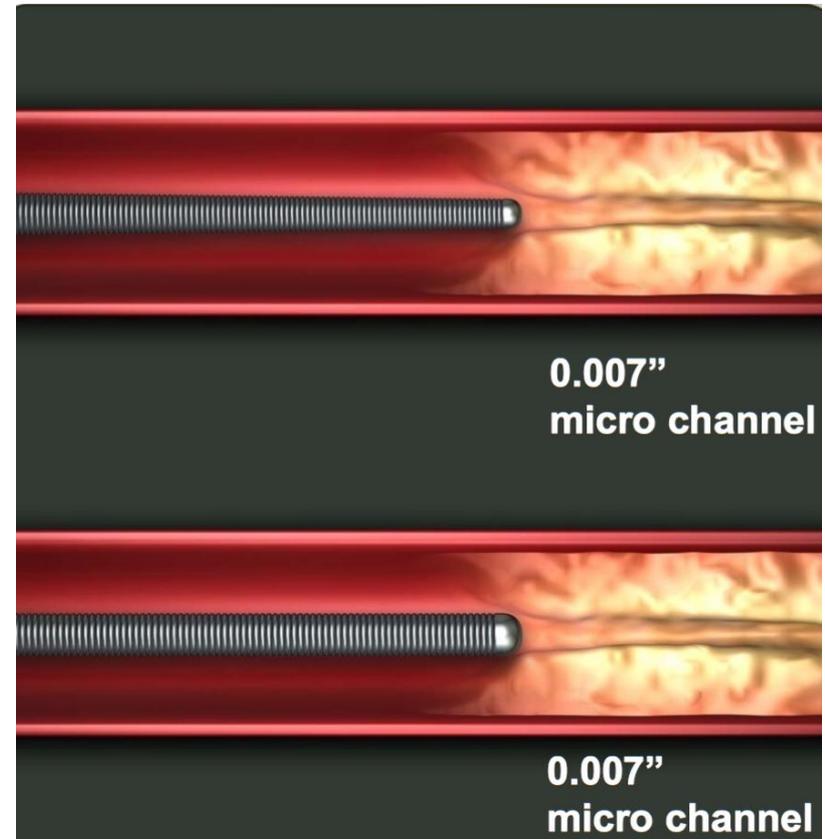
Tactile Feedback (related to coils)

Tip Size

Effilé 0,009

Fielder XT (0,009)
Hornet 14 (0,008)
Confianza Pro 12 (0,008)

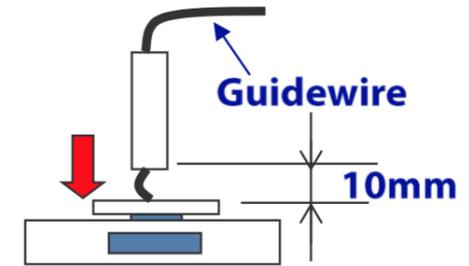
Standart 0,014



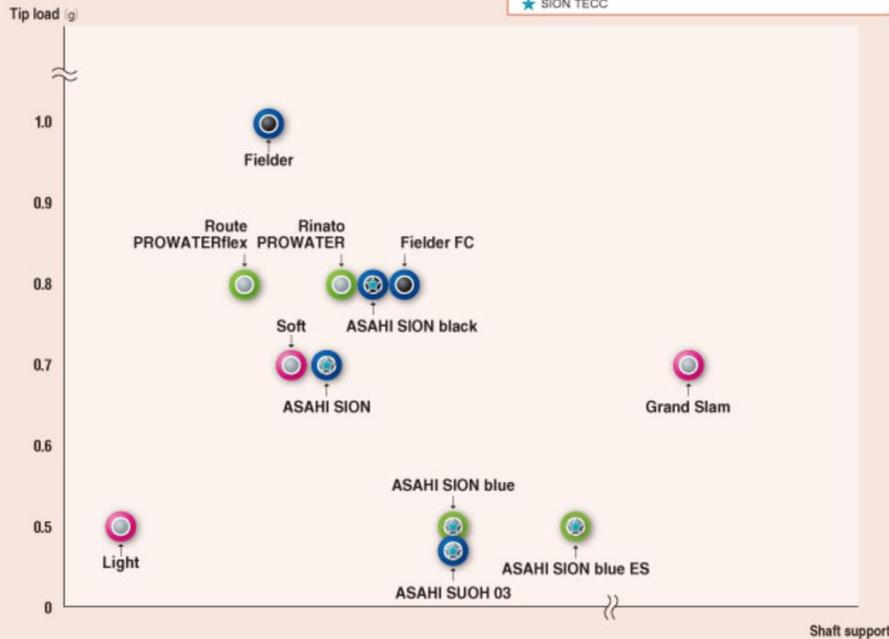
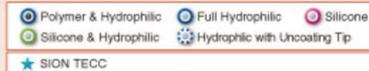
Tip Load

Tip Load Comparison

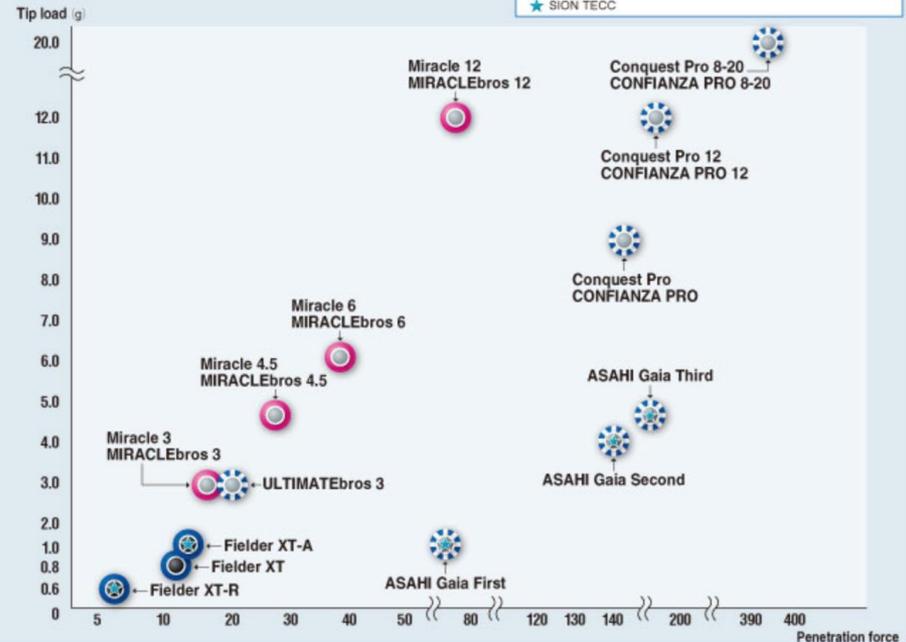
Test Method: Buckling load on the electronic balance is defined as tip load. The distance from the lower end of the pipe to the upper side of the electronic balance is 10 mm.



Frontline Wires



Chronic Occlusion Wires



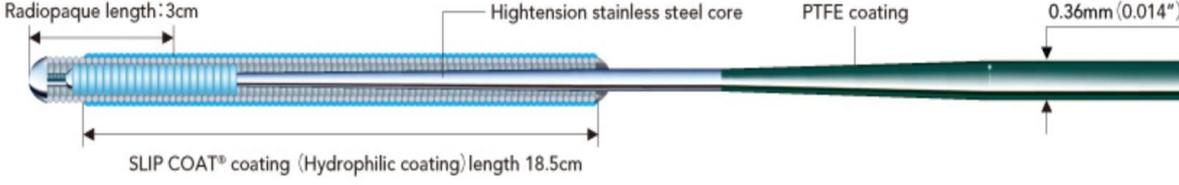
Wire Classification

Workhorse wire:

BALANCE MIDDLEWEIGHT UNIVERSAL™			
	Support	Rigidité de l'extrémité	Revêtements
		HC	<ul style="list-style-type: none"> • Section en polymère permettant une progression et une interaction avec les dispositifs excellentes • Ruban préformable DURASTEEL™ permettant une meilleure mémoire de forme • Marqueur unique permettant de mesurer la longueur de la lésion



ASAHI SION blue



Radiopaque length: 3cm

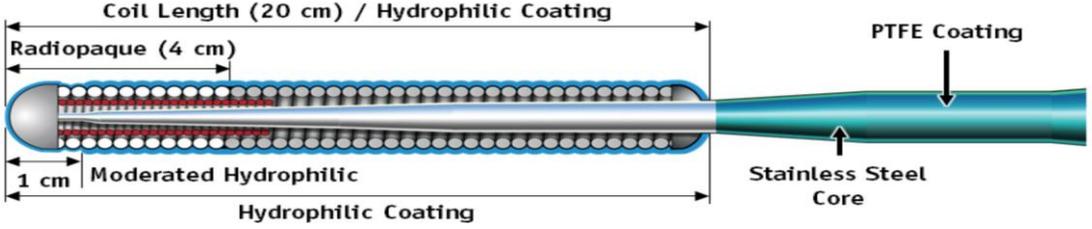
Hightension stainless steel core

PTFE coating

0.36mm (0.014")

SLIP COAT® coating (Hydrophilic coating) length 18.5cm

SAMURAI Guidewire



Coil Length (20 cm) / Hydrophilic Coating

Radiopaque (4 cm)

PTFE Coating

Moderated Hydrophilic

1 cm

Stainless Steel Core

Tip Diameter (inch)	Tip Load (gf)	Tip Radiopacity (cm)	Tip Style	Coil / Covering	Coil Length (cm)	Coating	Core Material
.014	0.5	4	Inner Coil Technology	Spring Coil	20	Moderated Hydrophilic	Stainless Steel

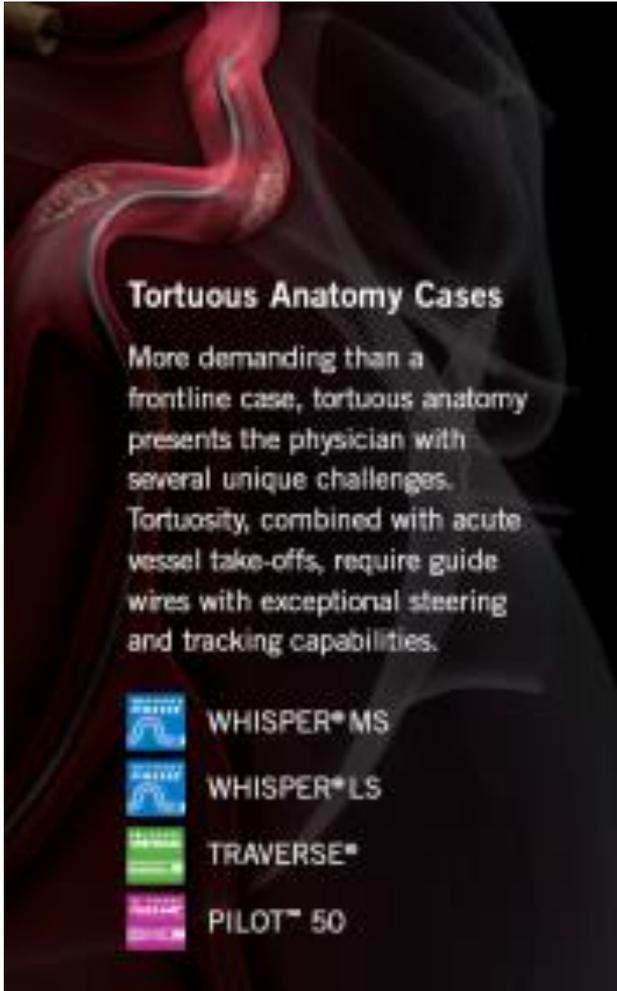
Guide de support

BALANCE HEAVYWEIGHT™			
	Support	Rigidité de l'extrémité	Revêtements
	●●●●	●●●●	HC
<ul style="list-style-type: none"> • Arme distale en ELASTINITE® pour une manœuvrabilité de précision et une grande flexibilité, idéale pour les anatomies tortueuses et la mise en place de dispositifs • Ruban préformable atraumatique améliorant la mise en forme et la souplesse de l'extrémité 			
			

HI-TORQUE WHISPER ES <ul style="list-style-type: none"> • Responsease Parabolic Core Grind • Enhanced Distal Support Compared to HI-TORQUE WHISPER MS 	DURASTEEL	Full Polymer	Core-To-Tip	Hydrophilic	1.2
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HI-TORQUE WIGGLE 	Stainless Steel	Bare Coils	Shaping Ribbon	Hydrophilic	0.3
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Anatomie tortueuse



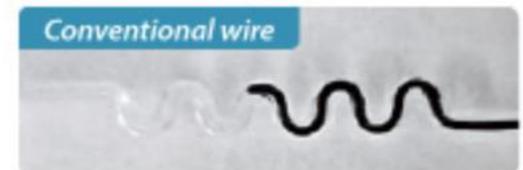
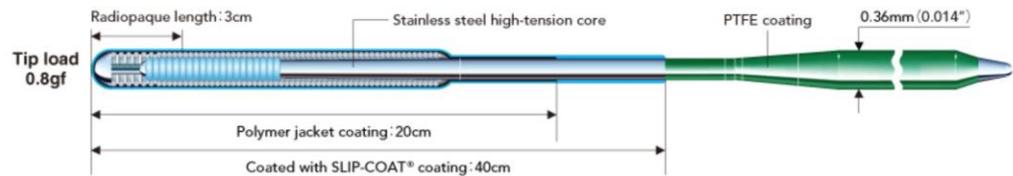
Tortuous Anatomy Cases

More demanding than a frontline case, tortuous anatomy presents the physician with several unique challenges. Tortuosity, combined with acute vessel take-offs, require guide wires with exceptional steering and tracking capabilities.

-  WHISPER® MS
-  WHISPER® LS
-  TRAVERSE®
-  PILOT™ 50

WHISPER® MS			
	Support ●●●●	Rigidité de l'extrémité ●●●●	Revêtements HC
<ul style="list-style-type: none"> • Revêtement en polymère sur une âme sans transition RESPONSEASE™ facilitant le franchissement des courbes sévères et la progression dans les anatomies tortueuses • Conception "core-to-tip" DURASTEEL, synonyme de manoeuvrabilité précise, de durabilité et de sensation tactile 			
			
WHISPER® LS			
	Support ●●●●	Rigidité de l'extrémité ●●●●	Revêtements HC
<ul style="list-style-type: none"> • Revêtement en polymère sur une âme sans transition RESPONSEASE™ • Conception "core-to-tip" DURASTEEL™, synonyme de manoeuvrabilité précise, de durabilité et de sensation tactile • Profil de l'âme plus bas pour une amélioration maximale de la progression du guide et de l'accès au distale 			
			

ASAHI SION black
PTCA GUIDE WIRE



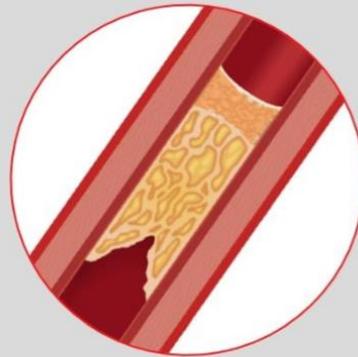
CTO

Wire choices should reflect anatomy



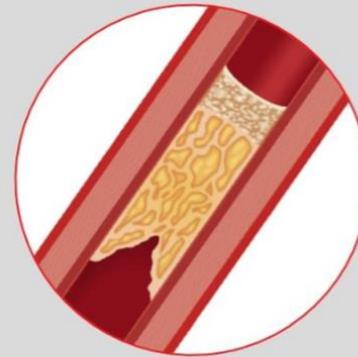
Wiring a tapered cap

Low tip load polymer jacketed wire



Wiring a blunt proximal cap

Penetration wire



Wiring loose tissue within the CTO

**De-escalation:
Low/medium tip load polymer wire or medium tip load high torque wire**

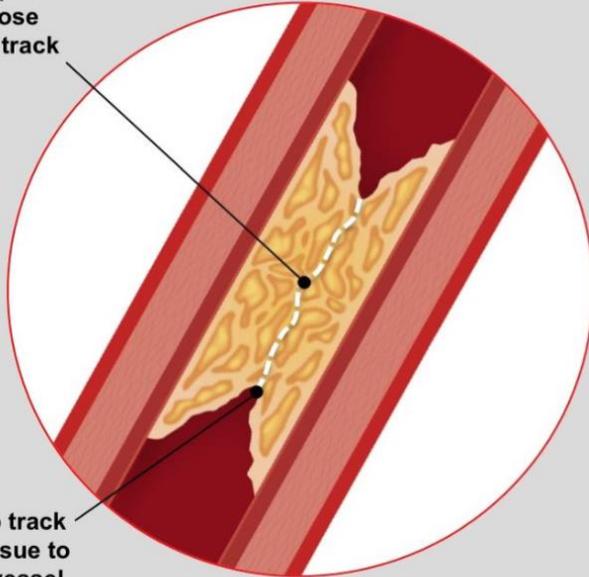


Wiring calcific segments or blunt distal cap

**Re-escalation:
Medium tip load high torque wire or penetration wire**

Tapered Proximal Cap

Wire tip to find loose tissue track



Wire to track soft tissue to distal vessel

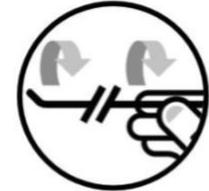
Required Wire Properties



Tapered 0.010" Tip
+ Polymer Jacket



Low
Tip load

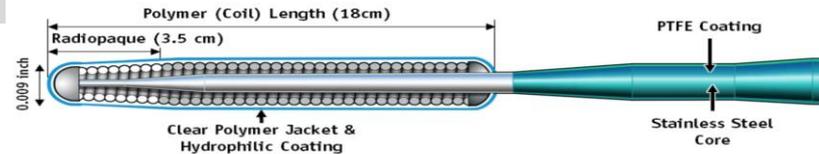


1:1 Torque
Response

XTA / XTR / Fighter / Whisper

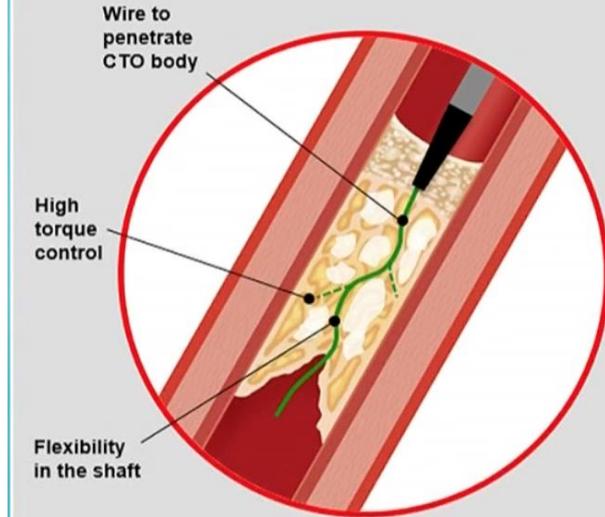


FIGHTER Guidewire



Tip Diame-ter (inch)	Tip Load (gf)	Tip Ra-diopacity (cm)	Tip Style	Coil / Cover-ing	Coil Length (cm)	Coating	Core Mate-rial
0.009	1.5	3.5	Core-to-tip	Clear Polymer over Spring Coil	18	Hydrophilic	Stainless Steel

Visible CTO Navigation



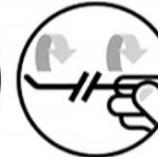
Required Wire Properties



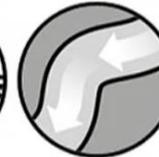
Tactile Feedback



Low-Med Tip load



1:1 Torque Response

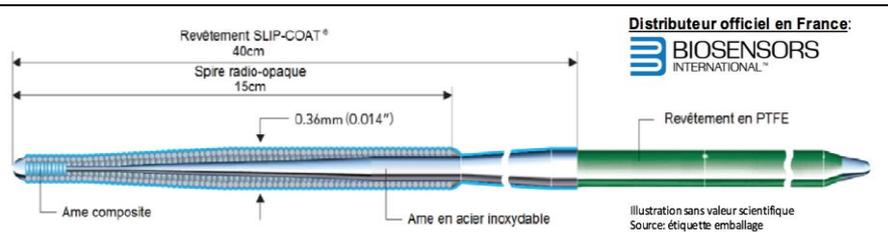


Flexibility in shaft

Gaia Family: 1.7g / 3.5g / 4.5g



Réponse au torque 1/1



Distributeur officiel en France:



Revêtement en PTFE

Illustration sans valeur scientifique
Source: étiquette emballage

3 versions de Gaia pour affronter diverses configurations anatomiques

ASAHI Gaia First

Diamètre : 0.010'' (0.26mm) – 0.014'' (0.36mm)
Charge de l'extrémité : 1.7gf

ASAHI Gaia Second

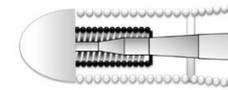
Diamètre : 0.011''mm (0.28mm) – 0.014''mm (0.36mm)
Charge de l'extrémité : 3.5gf

ASAHI Gaia Third

Diamètre : 0.012''mm (0.30mm) – 0.014'' (0.36mm)
Charge de l'extrémité : 4.5gf



Extrémité distale conique



Ame composite SION TECC



Extrémité préformée sur 1mm

Objectif:
amélioration de la capacité de pénétration

Objectif:
amélioration du contrôle du torque

Objectif: amélioration de la durabilité de la forme du guide et de son contrôle directionnel

Pour progresser dans la lésion

Si tortuosités

HT PILOT® 200			
	Support	Rigidité de l'extrémité	Revêtements
	●●●●	●●●●	HC
<ul style="list-style-type: none">• Extrémité en polymère avec des variations graduelles de rigidité• Arme sans transition RESPONSEASE™ modifiée pour un torque excellent lors du franchissement des occlusions chroniques			



Reste toujours dans la structure vasculaire

Proximal cap non effilé

Conquest Pro 12 / CONFIANZA PRO 12

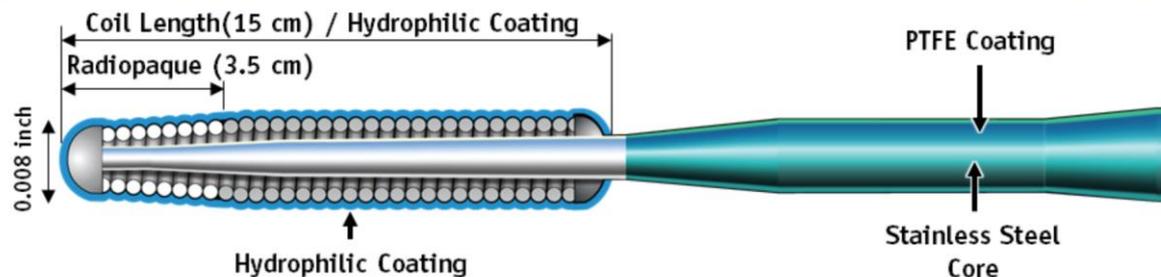


- Tip load 12.0 gf
- Tip radiopacity 20 cm
- Tip outer diameter 0.23 mm (0.009 inch)
- SLIP-COAT® coating over the spring coil, excluding the tip

A tapered tip with 12gf tip load. For penetration of calcification and proximal or distal thick, fibrous caps.

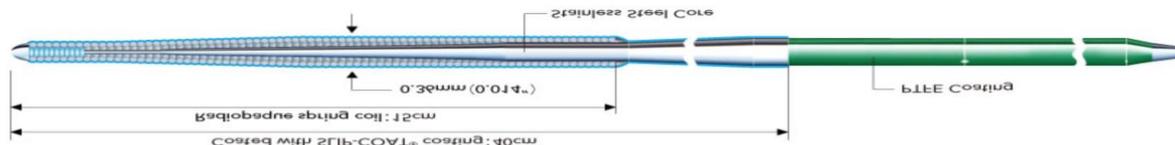
HORNET 14 Guidewire

Puncture proximal cap



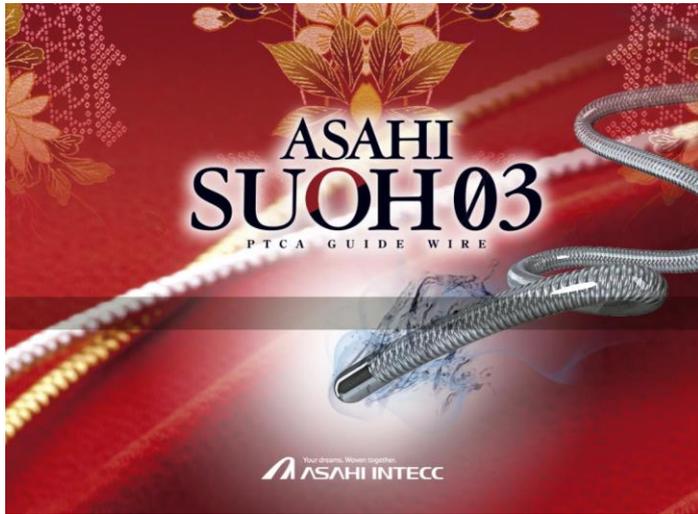
Tip Diameter (inch)	Tip Load (gf)	Penetration Force (gf/mm ²)	Tip Radiopacity (cm)	Tip Style	Coil / Covering	Coil Length (cm)	Coating	Core Material
0.008	14	432	3.5	Core-to-tip	Spring Coil	15	Hydrophilic	Stainless Steel

Wire CTO if short + good distal visibility

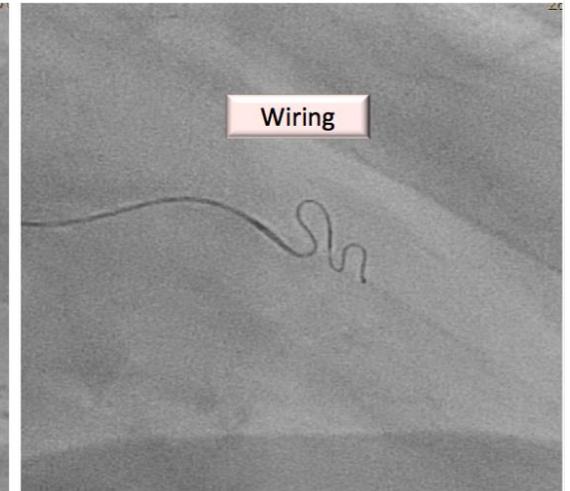
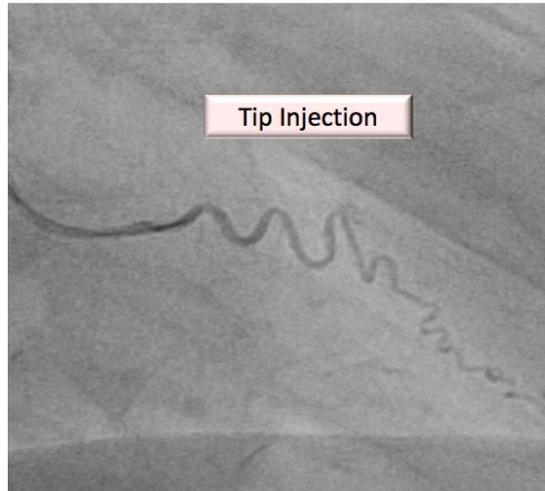


Gaia 3

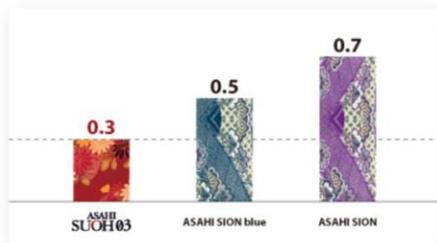
Artères très tortueuses



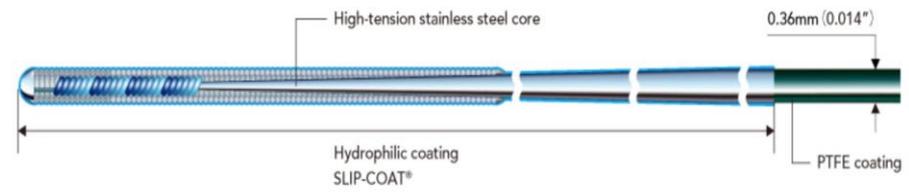
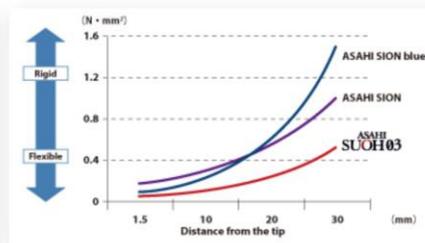
Good trackerbility



Tip load (gf)
The softest tip among ASAHI guide wires – 0.3 gf.



Tip flexibility
Radiopaque distal 30 mm is the most flexible among ASAHI guide wires.



Septale complexe, épicardique++

All the data were obtained by company standardized test, which may differ from industry standardized tests.
All the data do not guarantee that all devices have exactly the same performance with the samples used for tests.

Externalisation

ASAHI RG3



- Tip load 3.0 gf
- Tip radiopacity 3 cm
- SLIP-COAT® coating over the spring coil and until the middle of the shaft
- Shaft diameter 0.26 mm (0.010 inch)
- Guide wire length 330 cm

For guide wire externalization only .

Optimal wire strength, hydrophilic coating and 0.26 mm (0.010 inch) shaft provide superior inside-catheter pushability.

With the inner wall damage possibility reduced in tortuous vessels as well, the risk of complication is minimized.

R350™ Guidewire

Nitinol core 350cm for externalization

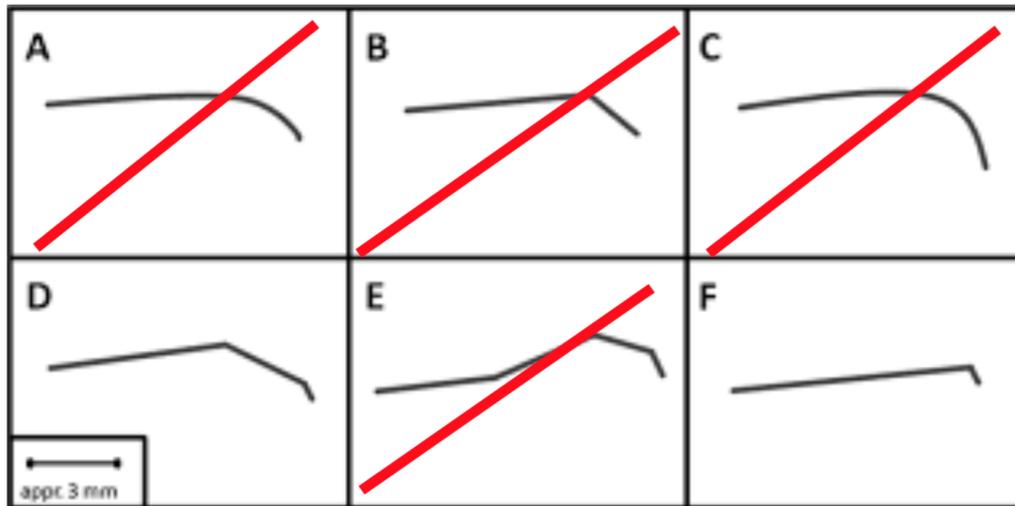
The R350™ Guidewire combines a 350 cm length for extended delivery with a nitinol core for flexibility and kink-resistance, resulting in excellent deliverability during advancement through tortuous vessels.



Techniques de manipulation

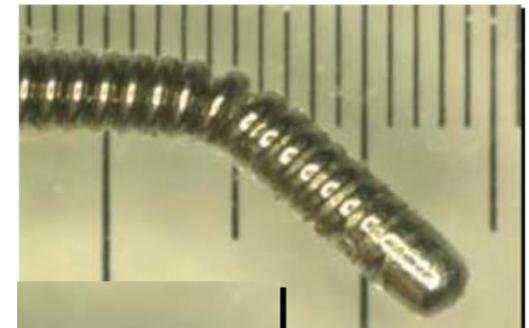
Préformation du guide

Wire shaping



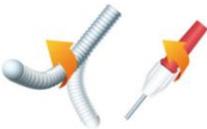
Lésions de CTO

une ou deux courbures



Non CTO

Technique de manipulation

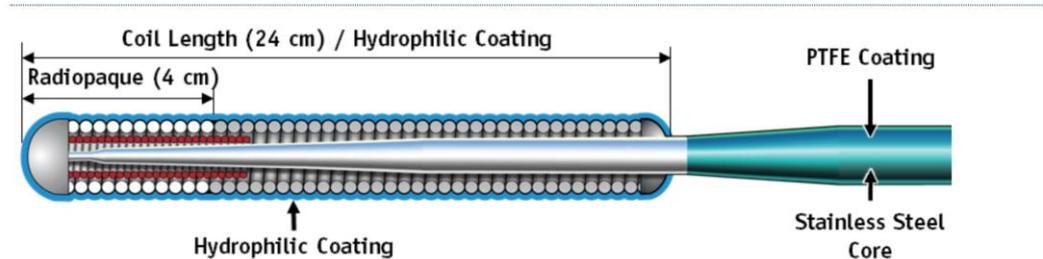
- Drilling :  Guides polymériques
- Sliding: Tous les guides
- Ponction: Hornet 14, confl pro 12, Gaia 3
- Push-deflect-torque: Gaia 
- Surfing: Sion
- Knuckling: Fielder XT, Pilot 200

Si bifurcation avec angulation+++

Guides hydrophiles non polymériques

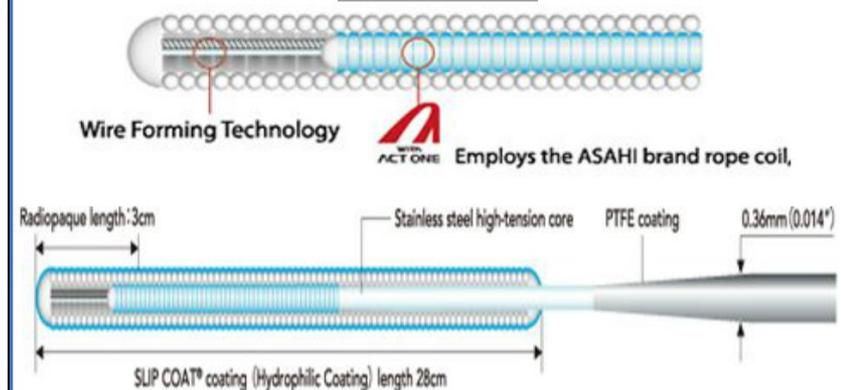
Guidewire	Tip Diameter (in)	Coil Length (cm)	Radiopaque Tip Length (cm)	Tip Load (gf)	Core Material	Coating
SAMURAI™ RC	0.014	24	4	1.2	Stainless Steel	Hydrophilic
Sion™	0.014	28	3	0.7	Stainless Steel	Hydrophilic

SAMURAI RC Guidewire



Tip Diameter (inch)	Tip Load (gf)	Tip Radiopacity (cm)	Tip Style	Coil / Covering	Coil Length (cm)	Coating	Core Material
0.014	1.2	4	Inner Coil Technology	Spring Coil	24	Hydrophilic	Stainless Steel

Sion



Double courbure

ROTAWIRE

Drilling hyper rapide



Comment aider le guide?

Utilisation de microcatheter droit

- Aide à la progression tout au long de la lésion
- Apporte du support
- Permet de modifier la forme du Tip
- Permet échange de guide

Mme X



Mme X



Utilisation de microcatheter angulé

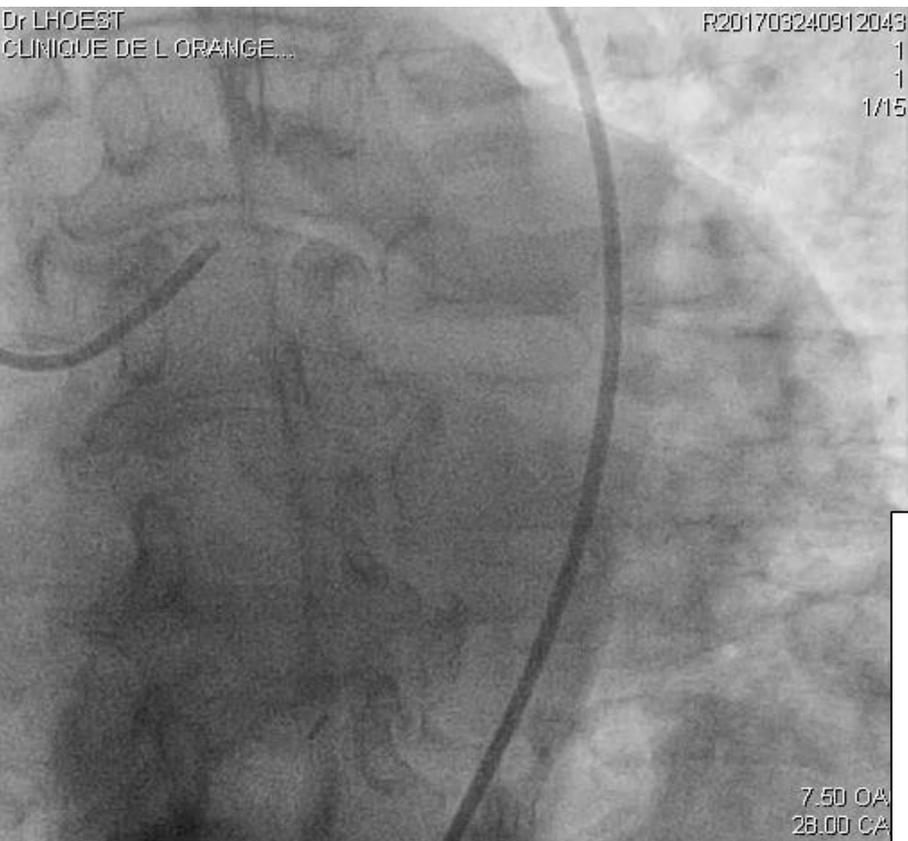
Teleflex *Angled SuperCross*

- dual coil, no braid

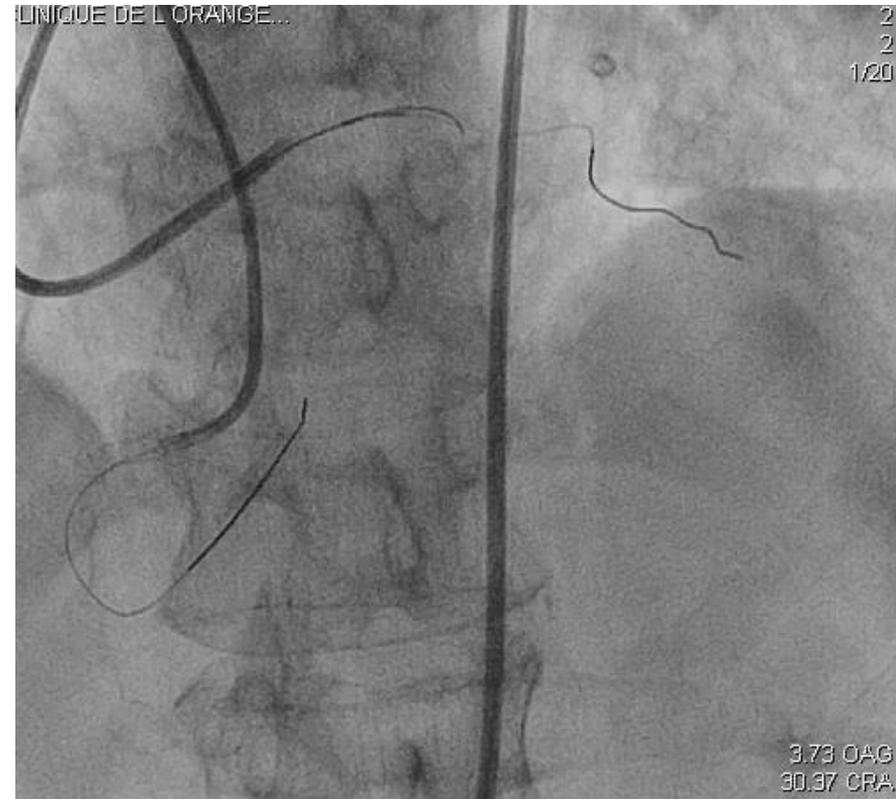
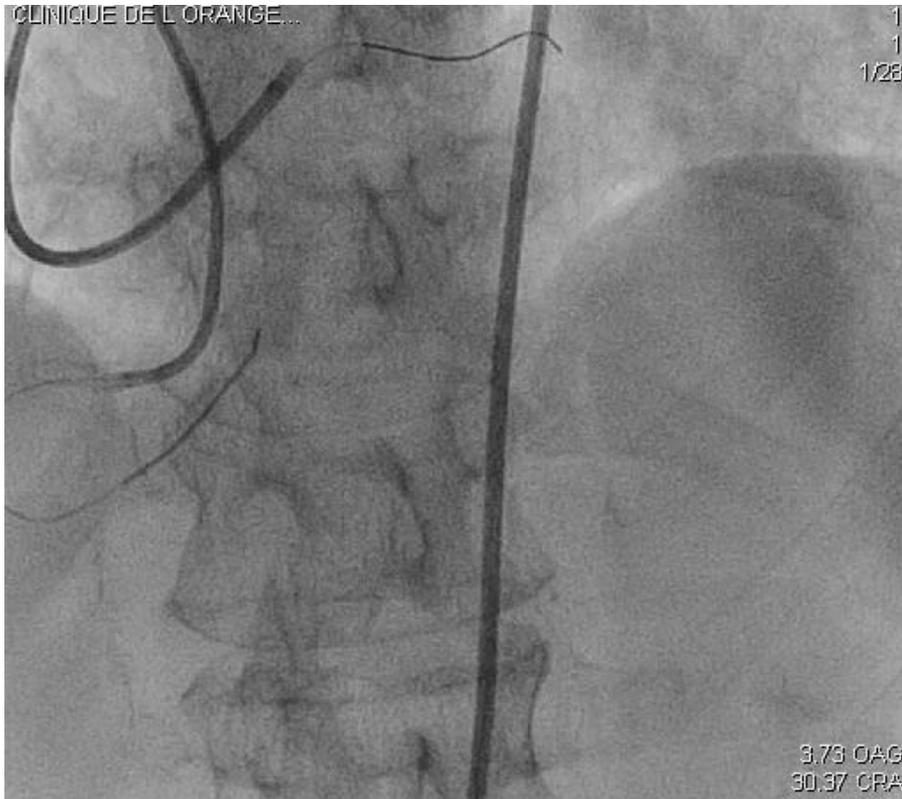


Teleflex®

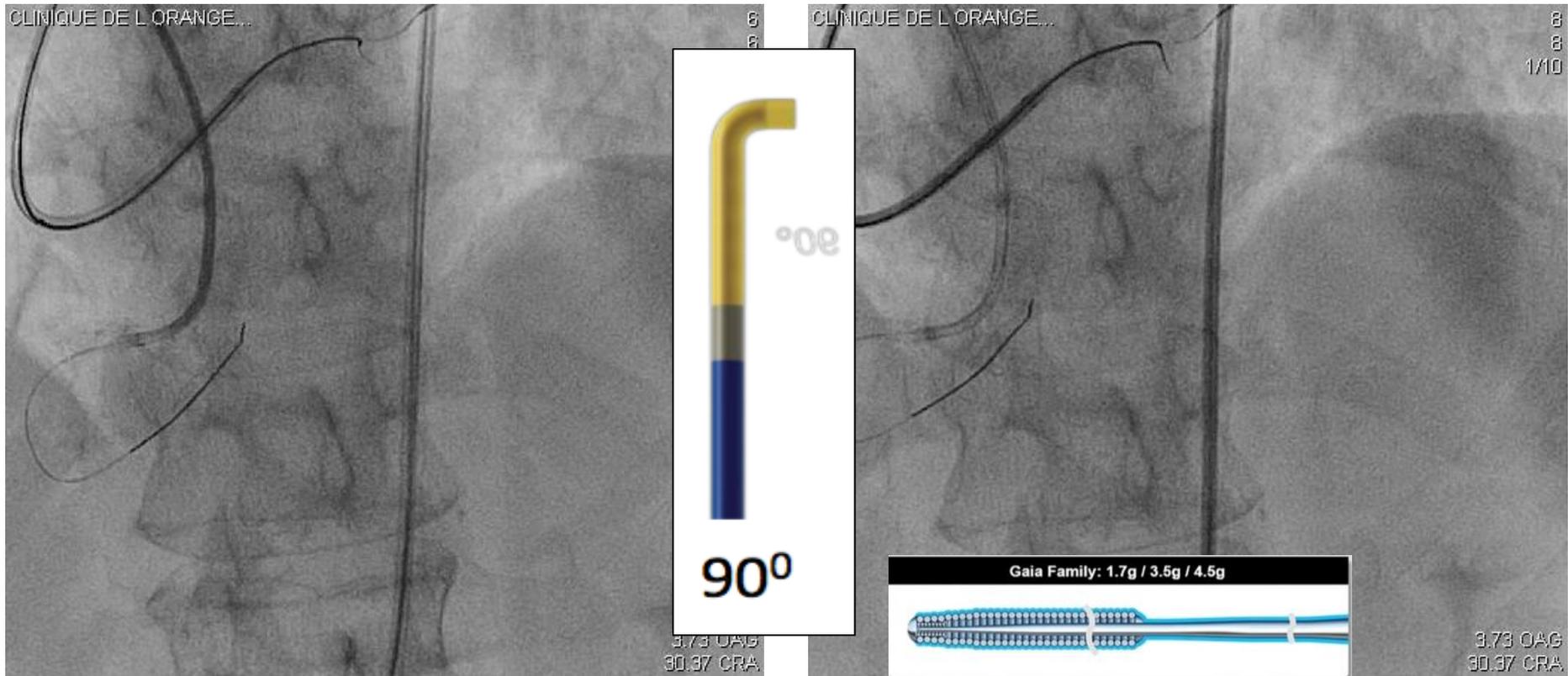
1-Non CTO avec supercross angulé



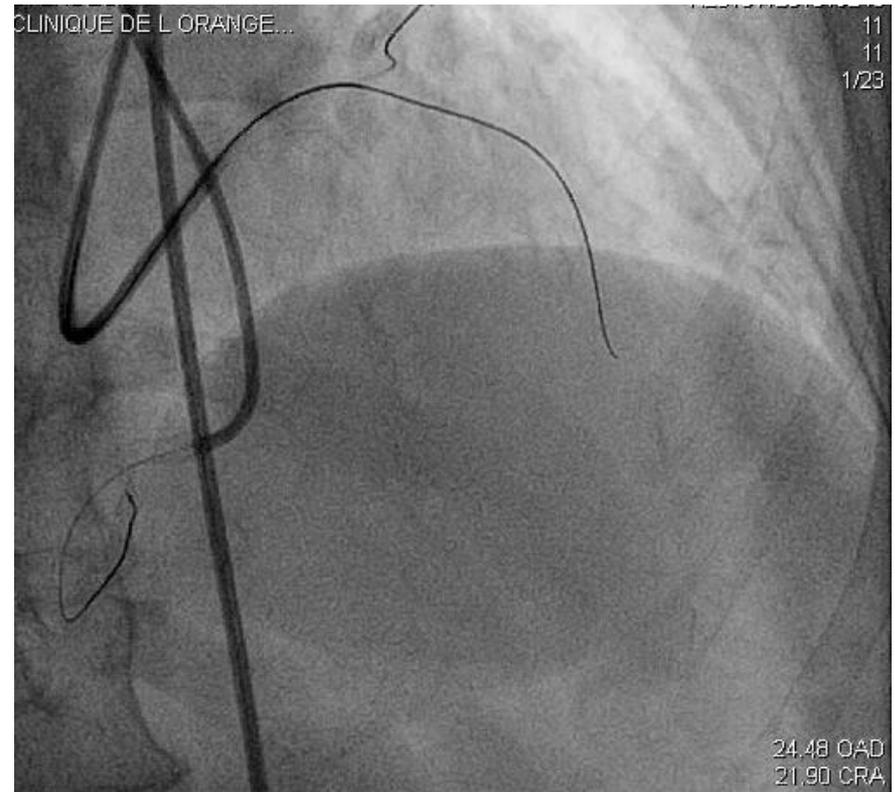
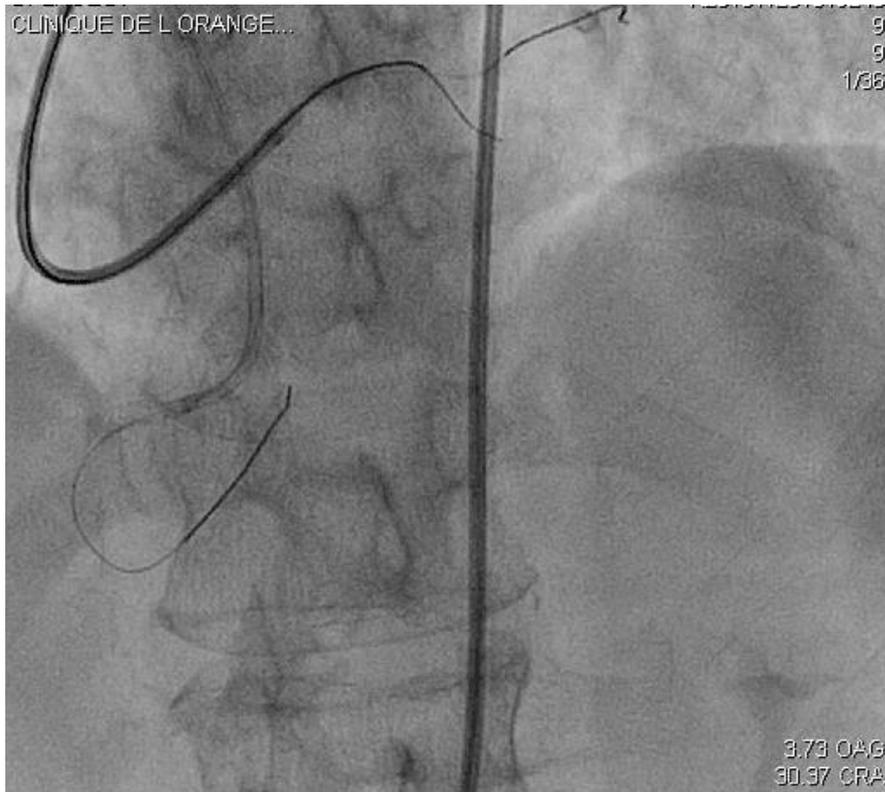
2-CTO supercross angulé



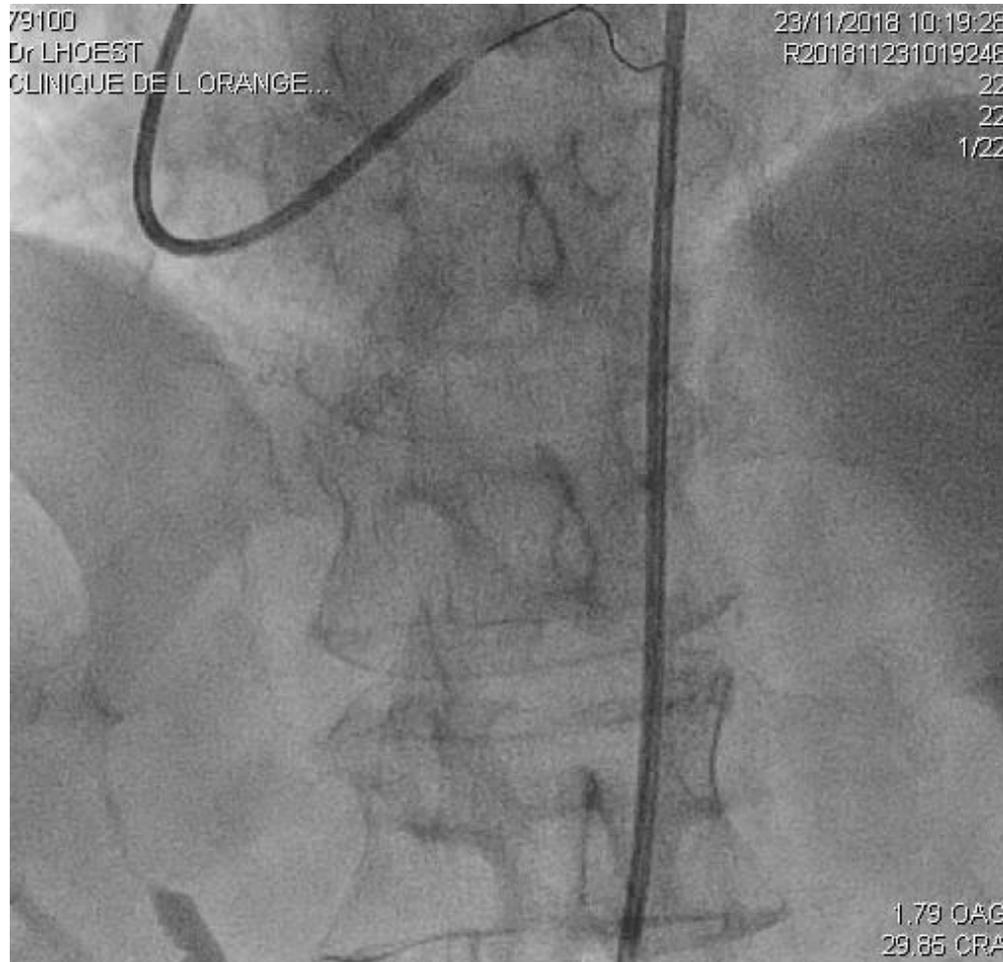
2-CTO supercross angulé



2-CTO supercross angulé

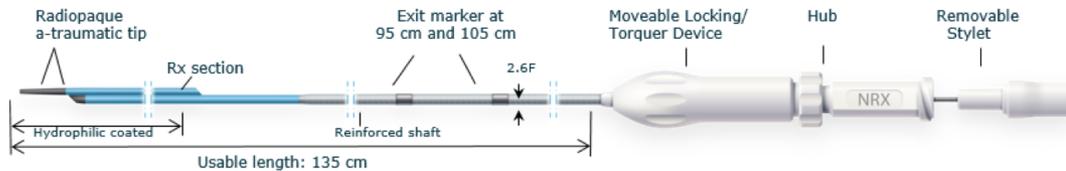


2-CTO supercross angulé

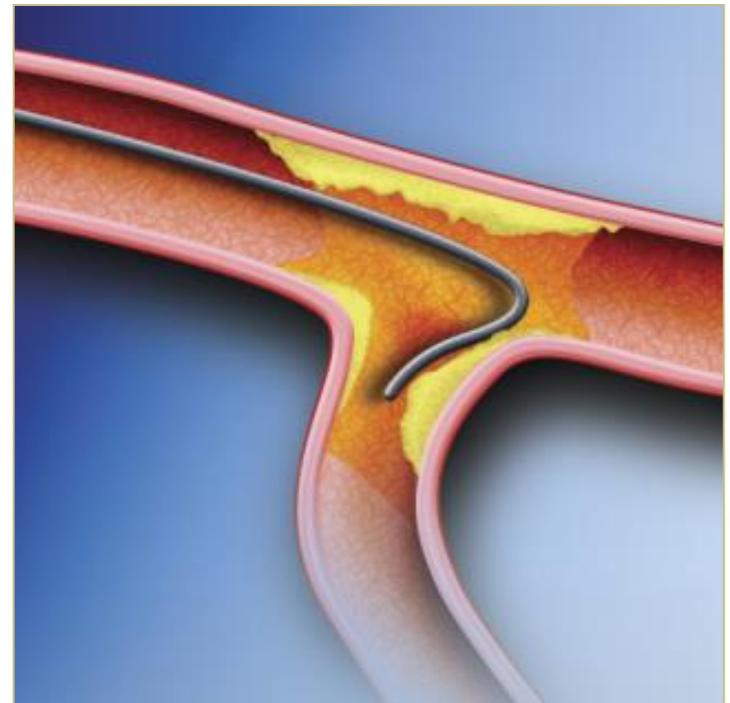
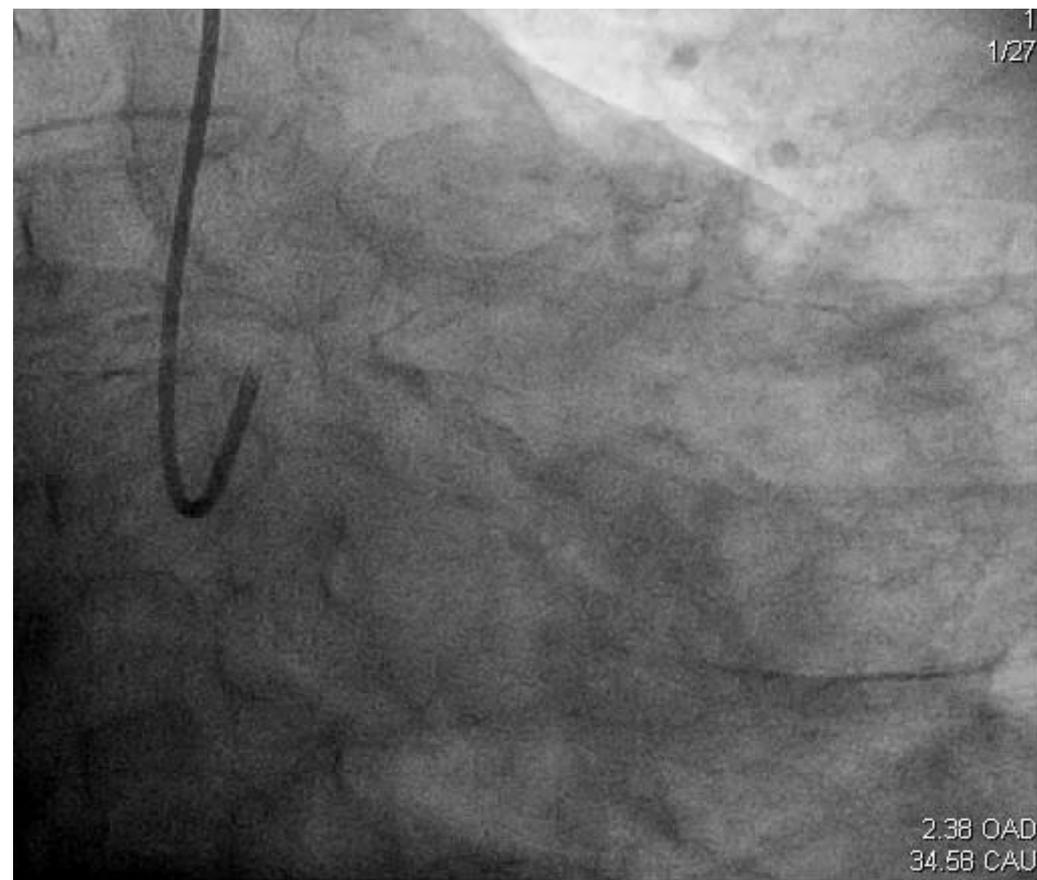


Utilisation de microcathéter double lumière

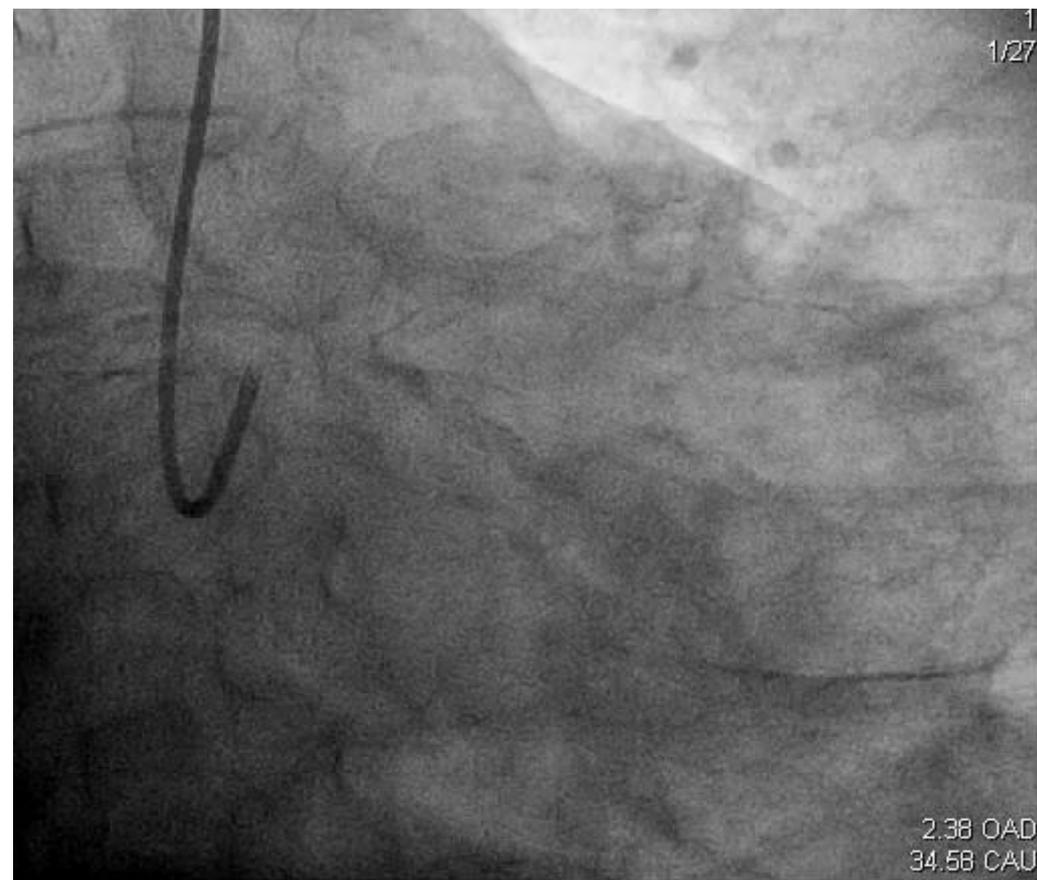
NHANCER RX – Dual Lumen Catheter



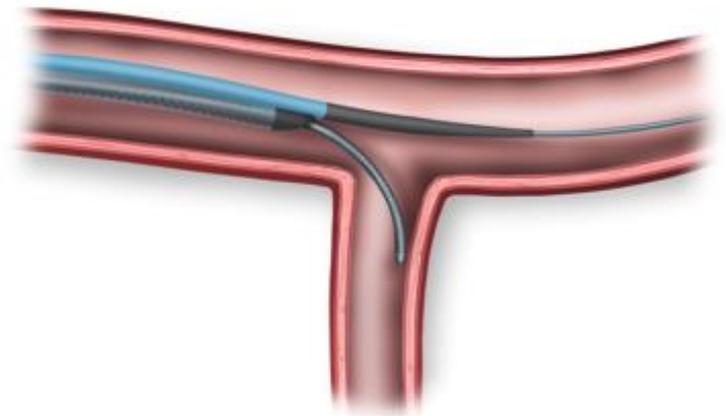
Cas n°1

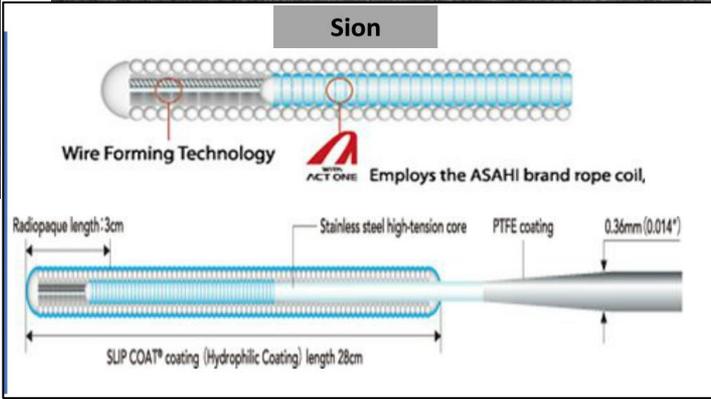
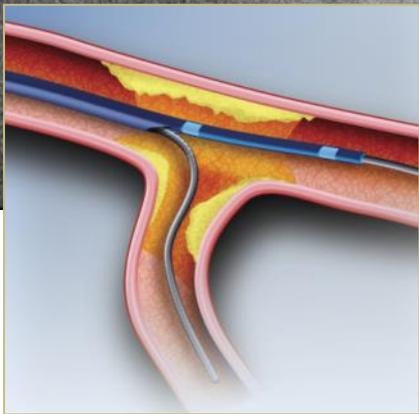
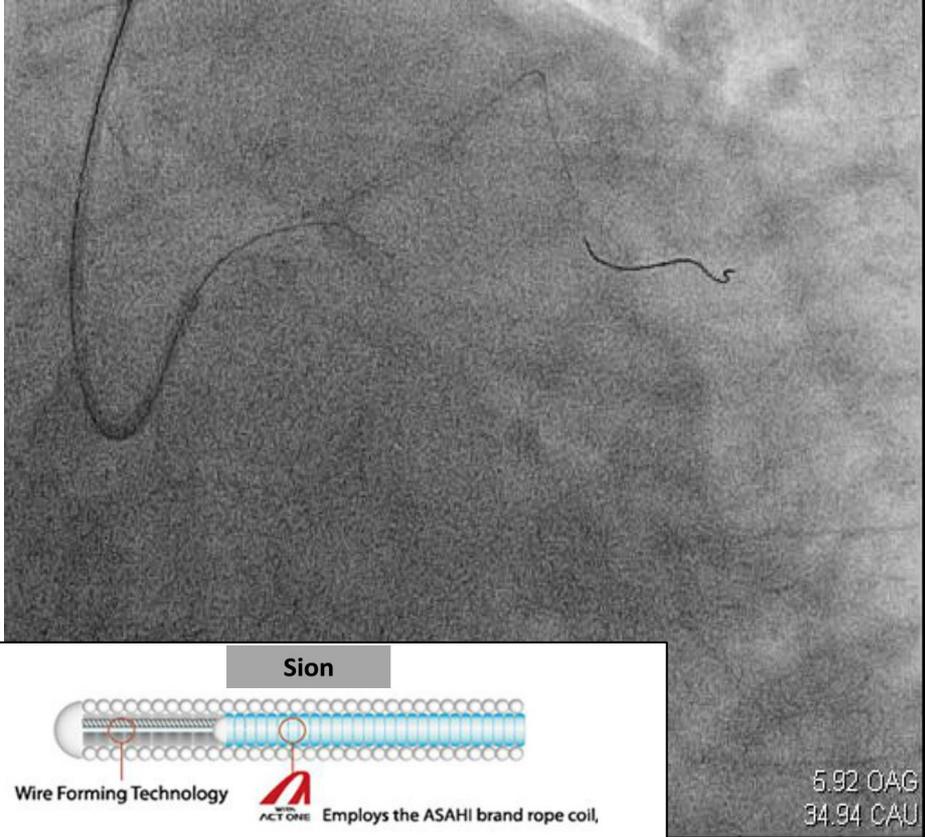
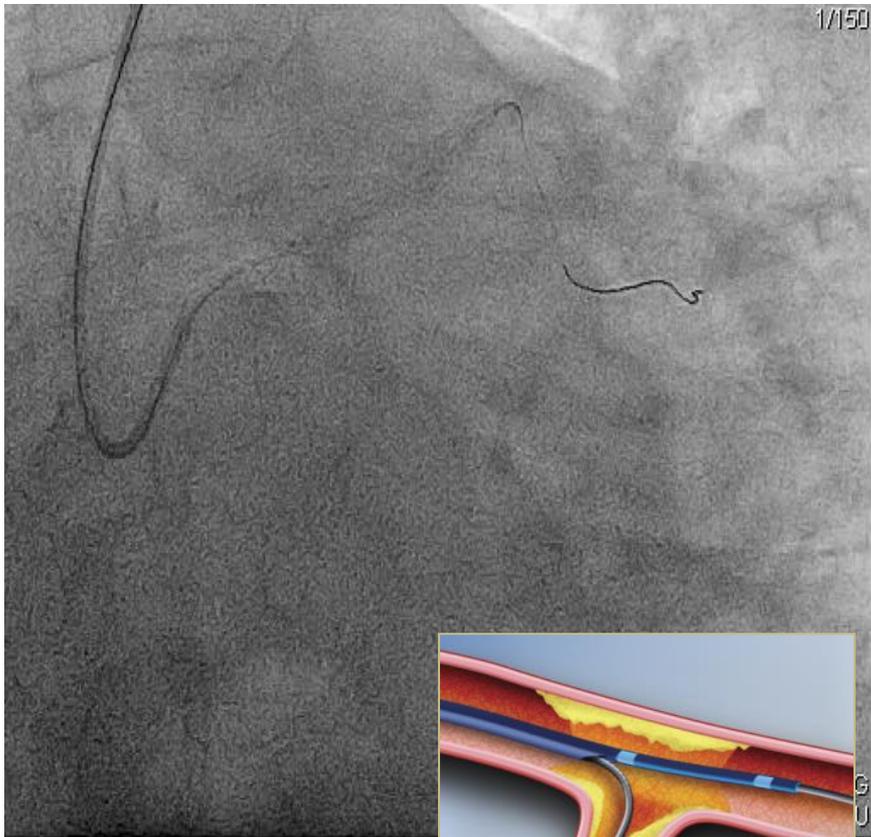


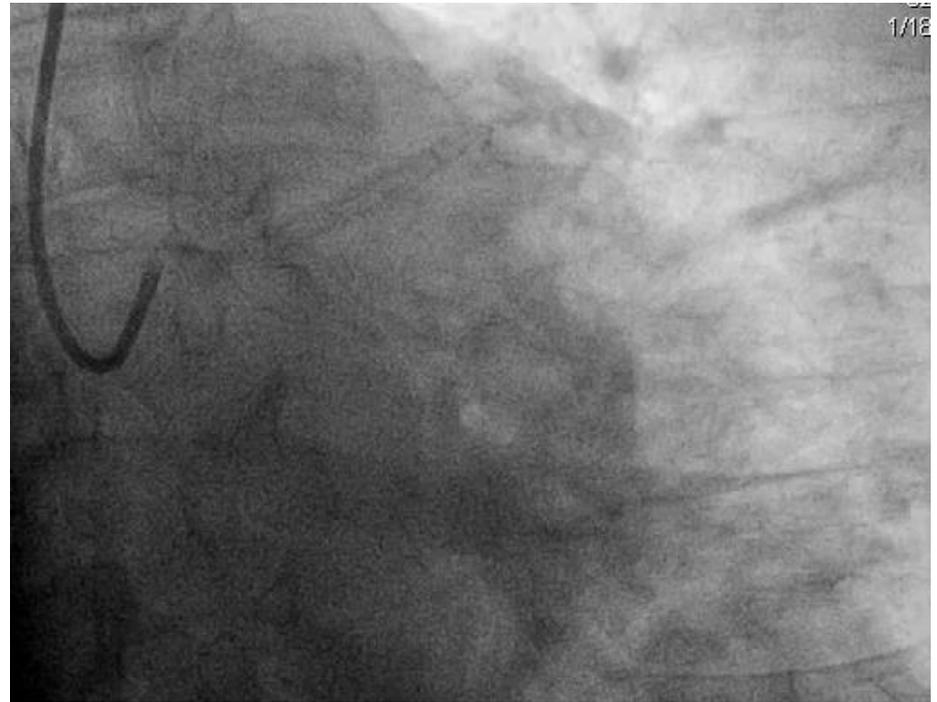
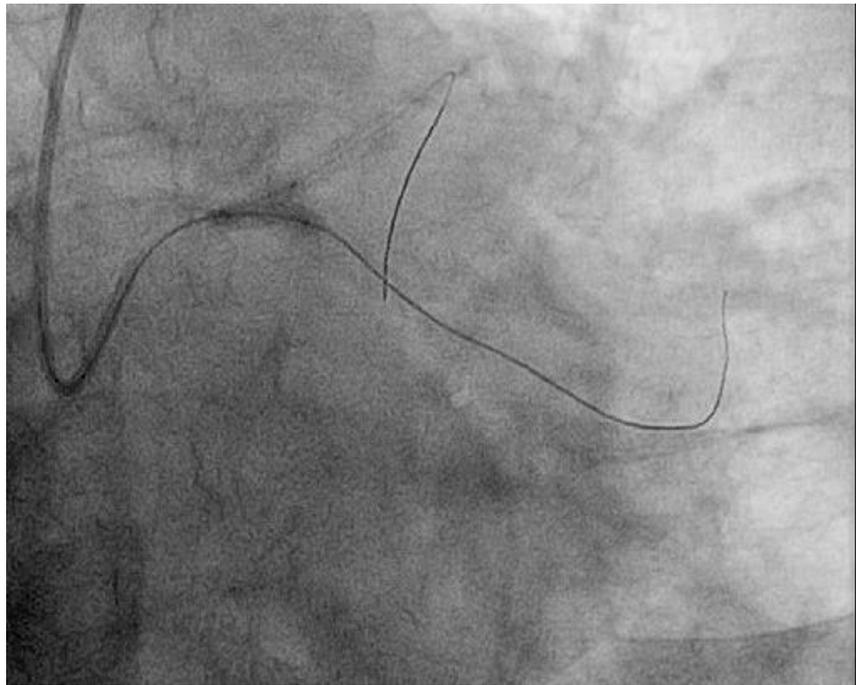
Cas n°1



Wiring acute angulated bifurcations



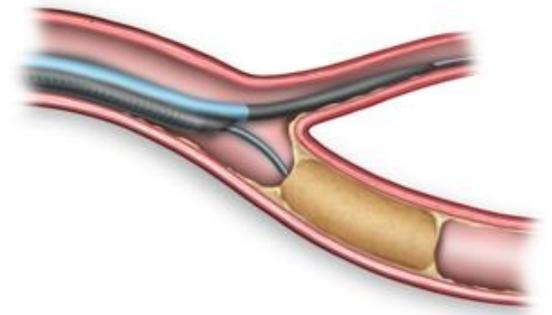




Cas n°2



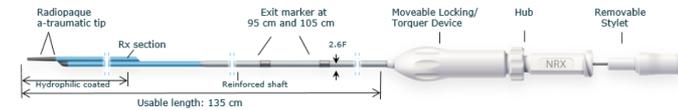
Bifurcation CTO wiring



Dérivé, Filtre : Filtrer 1



NHANCER RX – Dual Lumen Catheter



XTA / XTR / Fighter / Whisper



Fielder **XT-A**

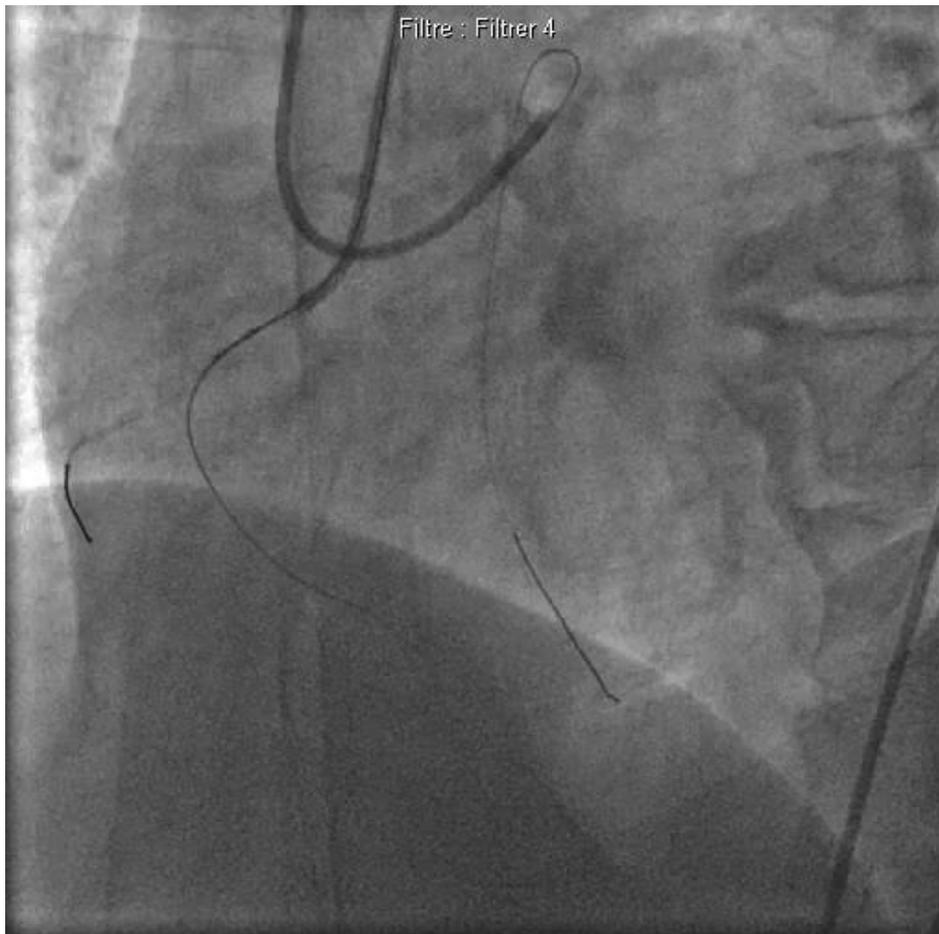


Torque and control enhance crossability.
For the occluded lesions without a stump.

Torque force

Tip load 1.0 g

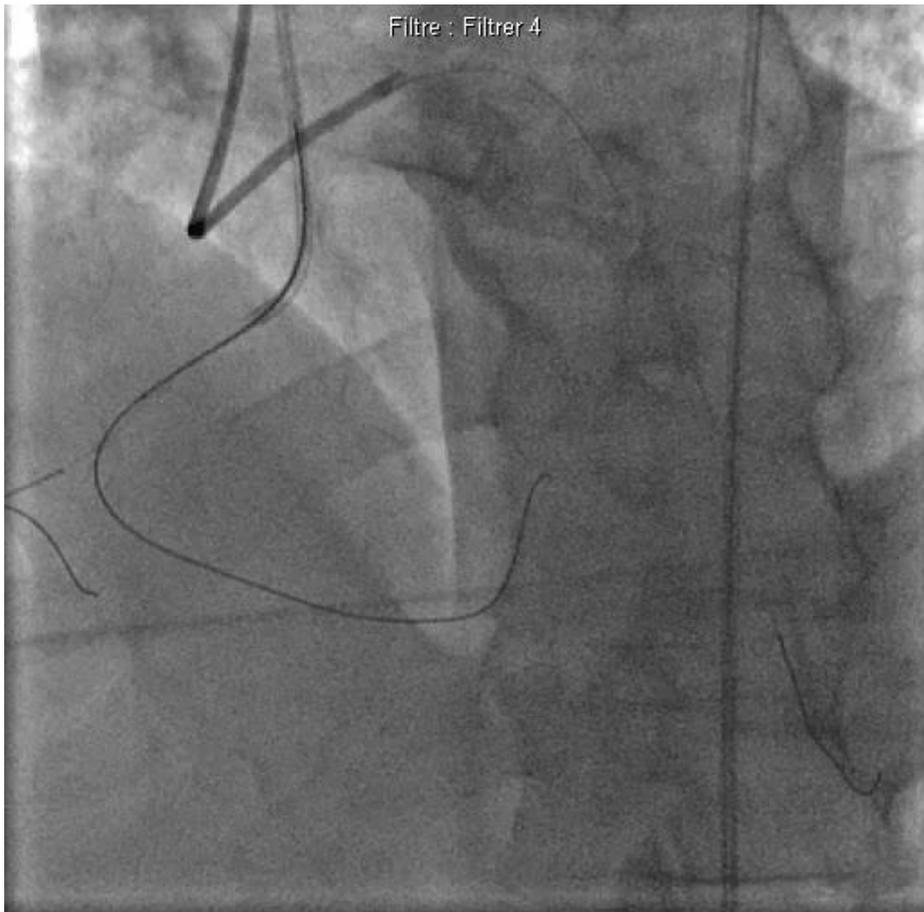
Smooth passage



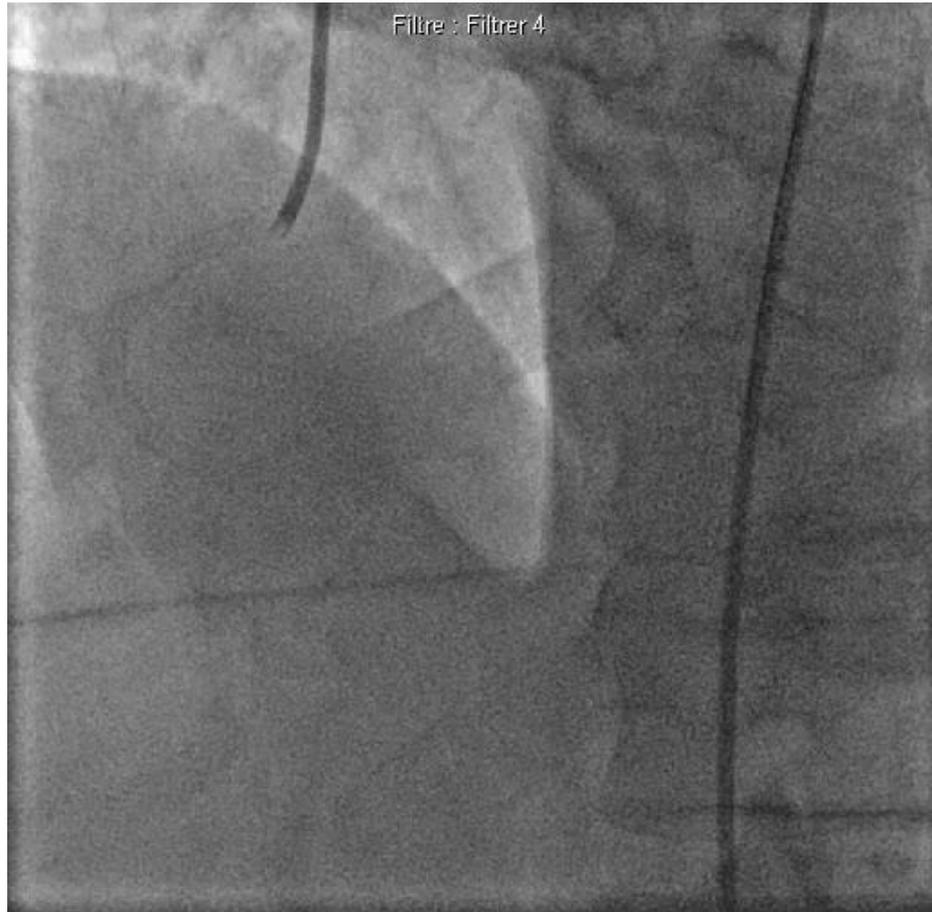
HT PILOT™ 200		
Support	Flexibilité de l'extrémité	Revêtements
●●●●	●●●●	HC
<ul style="list-style-type: none"> • Extrémité en polymère avec des variations graduées de rigidité • Arête sans transition RESPONSEASE™ modifiée pour un torque excellent lors du franchissement des occlusions chroniques 		

- 4,1G
- Polymérique
- Core to tip
- Anatomie tortueuse et mal visualisée
- Reste dans la structure vasculaire

Filtre : Filtrer 4



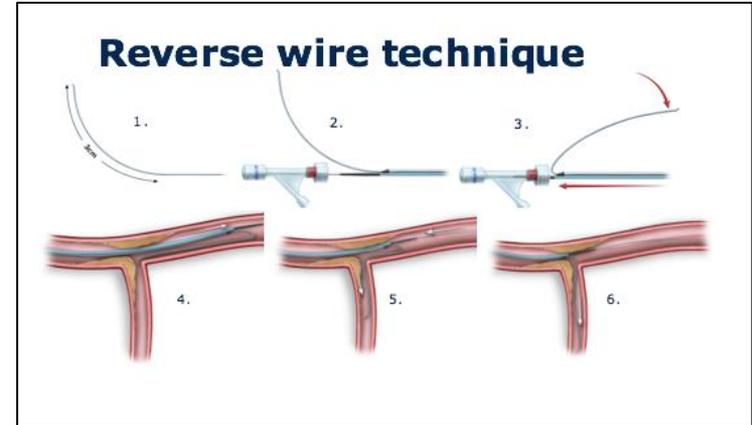
Filtre : Filtrer 4



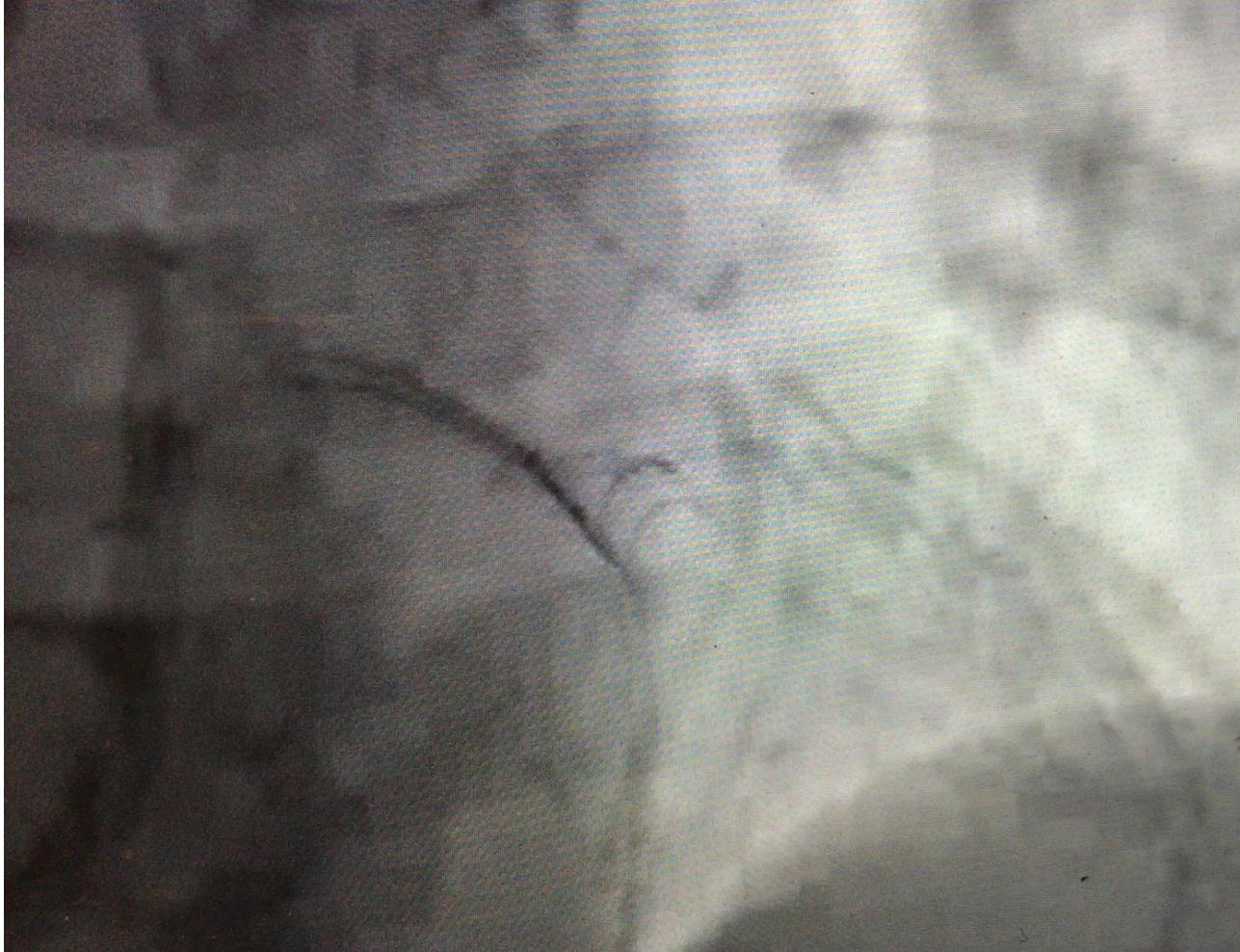
Cas n° 3



Cas n° 3



Cas n° 3





Conclusions

- Connaître son guide +++ et leur propriété
- Bien adapter le guide à la situation
- Les aider à « sur-performer » à l'aide de micro-catheters simple ou double lumière.
- Limiter la liste de nos guides à ceux que l'on connaît