CATH'LAB
REVUE DE CARDIOLOGIE INTERVENTIONNELLE
WITH THE COLLABORATION OF CARDIOLOGIE PRATIQUE

FOCUS

Metis™, a new range of 0.014'' guidewires

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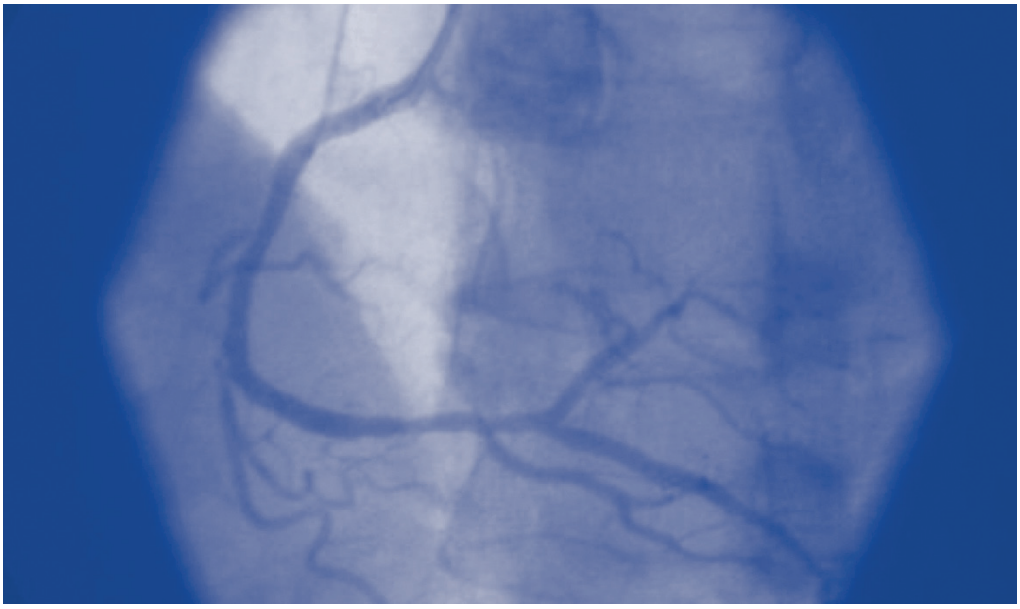


The choice of a 0.014'' guidewire is a vital step in coronary angioplasty. We now treat patients with increasingly complex, tortuous and calcified lesions. The ideal 0.014'' guidewire should, therefore, be suitable for crossing over complex lesions and also have a sufficiently large support in order to deliver balloons and stents to the site of the stenosis. Finally, the operator should also be able to use the guidewires with full confidence due to their atraumatic qualities.

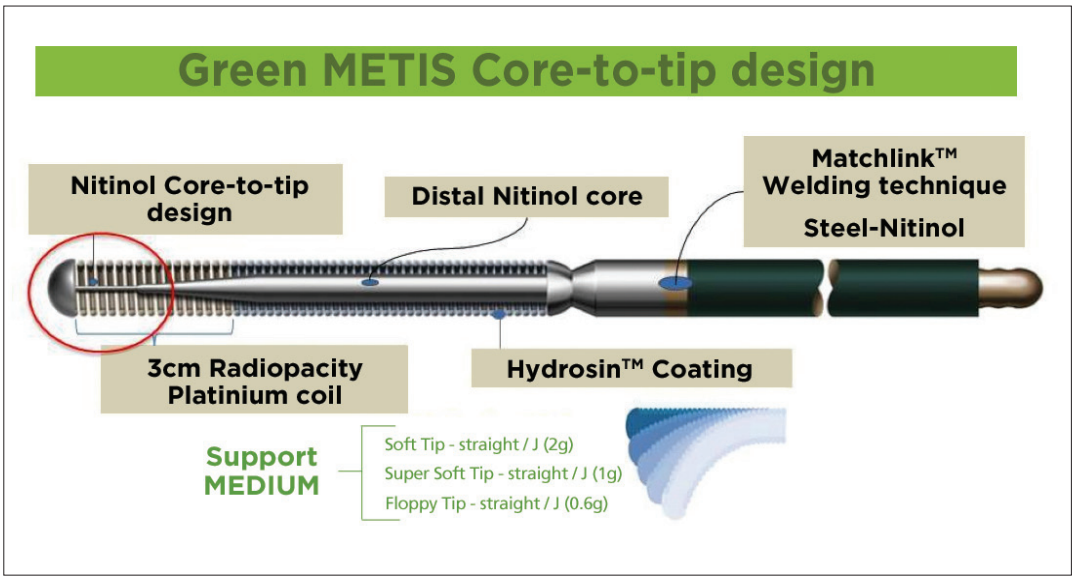
The Metis™ range of COMED France comprises two types of 0.014" guidewires with these three qualities.

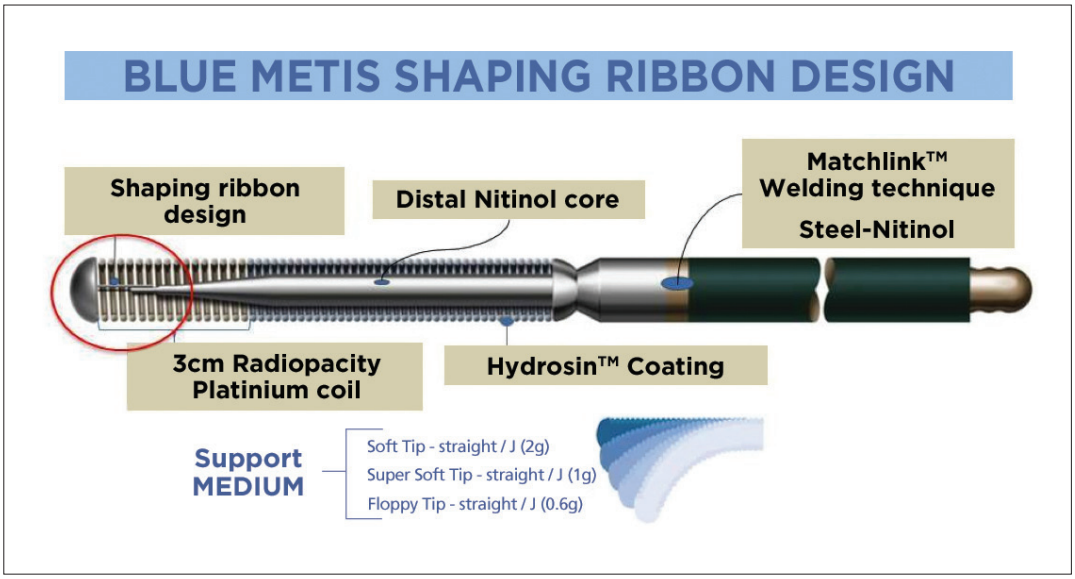
DESCRIPTION OF THE GUIDEWIRES

The range of METIS guidewires is divided into two distinct categories:
• Green Metis™ *core to tip design* ;
• Blue Metis™ *shaping ribbon design*.
The distal end is available in three types of rigidity:
– 0.6 g *(floppy)*, straight/J tip;
– 1 g *(super soft)*, straight/J tip;
– 2 g *(soft)*, straight/J tip.

The two types of guidewire have common features:

• A high quality PTFE-coated stainless steel core, offering excellent support and good handling.
• High tech Matchlink™ Welding technique that merges the stainless steel to the nitinol distal segment.
• A Hydrosin™ Coating, which enhances gliding, reduces friction and facilitates the passage over complex lesions.
• The Distal Nitinol core offers flexibility and optimised torque to the benefit of controlled navigation through tortuous and calcified blood vessels.
• A platinum radiopaque coil that offers enhanced radiopacity of 3 cm thus improving visualisation of the guidewire and allowing evaluation of the length of the lesion.
• Resistance > 2.45 N, for an atraumatic distal tip.





Figures 1 and 2. Green Metis™ and Blue Metis™.

The Green Metis™ *core to tip* design has a tapered core up to the distal tip; offers excellent tactile sensation to the benefit of torque 1: 1 and good hold *(figure 1)*.

The Blue Metis™ *shaping ribbon design* has a flat distal core, offers perfect configuration and excellent flexibility *(figure 2)*.

PERSONAL EXPERIENCE

I discovered the Metis™ range during the 1st quarter of 2014, and over time it has become one of my 1st priority guidewires for all my percutaneous coronary interventions.
I prefer using the Blue Metis™ shaping Ribbon (0.6 g/1 g or 2 g) for very tortuous, calcified and distal lesions, depending on the desired *push*.
However, my preferred guidewire is the *core to tip*, which I use regularly during recanalization of chronically occluded

Clinical Case N° 1

➜ Mrs G. H., a patient aged 77, is hospitalised for ST-elevation ACS with positive troponin. Her risk factors include HTA, dyslipidemia and non-insulin-dependent diabetes.
The coronary angiography shows monotruncular disease with multiple stenosis IVA and also a lesion with a nice first diagonal *(photo 1)*.
The procedure is performed through the right radial artery 6 F using a Convey™ (Boston Scientific) catheter guidewire, type EBU 3.5.

The 0.014'' guidewire selected is a Green Metis™ *core to tip* (2 g) that enables an easy access through the different curves of the artery, the crossing over the lesions and the benefit from additional support *(photo 2)*.
Pre-dilatation is performed using a Minitrek™ 2.0 (Abbott Vascular) balloon, then 2 active stents 2.75/24 and 2.5/32 are mounted after placing a Metis™ *shaping ribbon* (1 g) diagonally in order to treat the IVA/Dg bifurcation.
Then, the Metis™ *core to tip* (2 g) crosses over the stent mesh easily and is positioned diagonally and an active stent 2.75/12 is set up without pre-dilatation *(photo 3)*. The final result is satisfying *(photo 4)*.

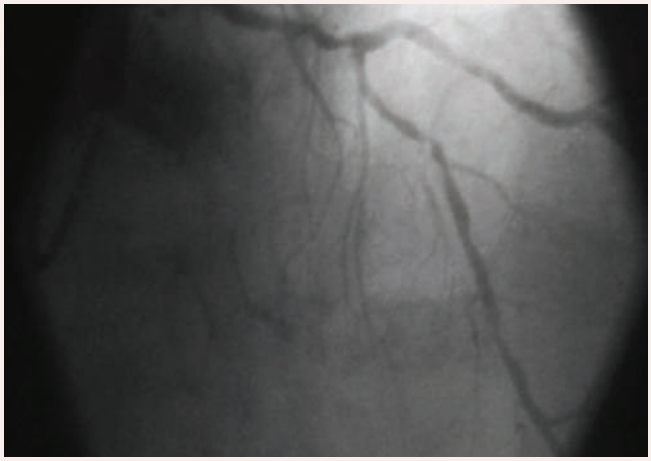


Photo 1. Monotroncular disease with multiple stenosis IVA and a lesion with a nice first diagonal.

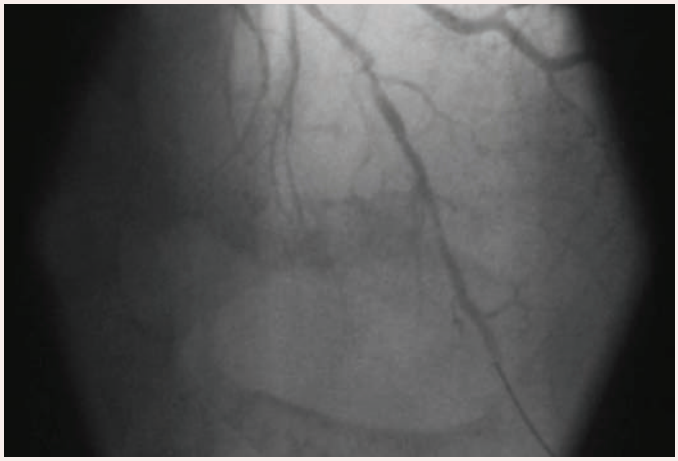


Photo 2. The 0.014'' Metis™ *core to tip* (2 g) guidewire enables easy access through the various curves of the artery, to cross over lesions and to benefit from adequate support.

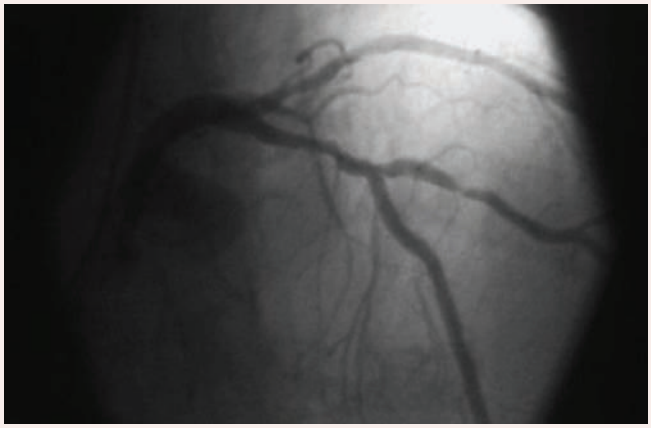


Photo 3. The Metis™ core to tip (2 g), crosses over the stent mesh easily to position itself diagonally and set up without pre-dilatation, an active stent 2.75/12.

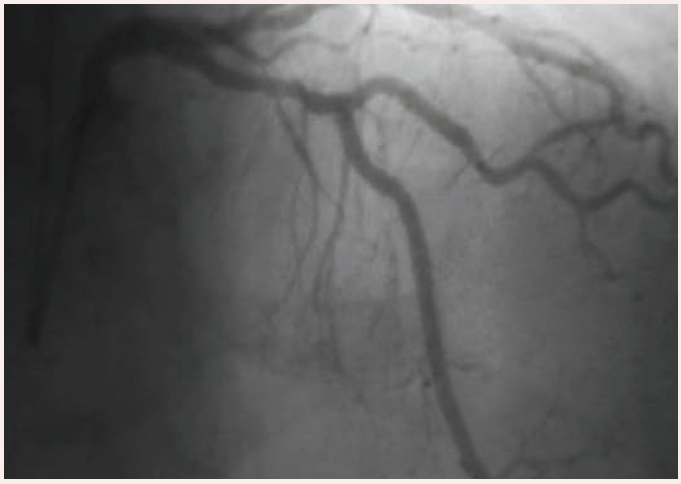


Photo 4. Final result.

Clinical Case N° 2

➜ M. L. P. aged 60, dyslipidemic and ex smoker, is hospitalised for ST-elevation ACS. The coronary angiography shows monotruncular disease in the right coronary artery with CD3 stenosis and subocclusive stenosis of an important branch of the RCA *(photo 1)*.

The procedure is performed through the right radial artery 5 F using a JR4 Launcher® (Medtronic) catheter guidewire. For this case, I chose a Metis™ *shaping ribbon* (0.6 g) that allowed me to reach and cross over the distal lesions easily *(photo 2)*.

After pre-dilatation using a 2.0/30 ballon, an active stent 2.5/24 was positioned in the RCA branch, then a second one, 2.75/28, in the CD3 with a good final result *(photo 3)*.

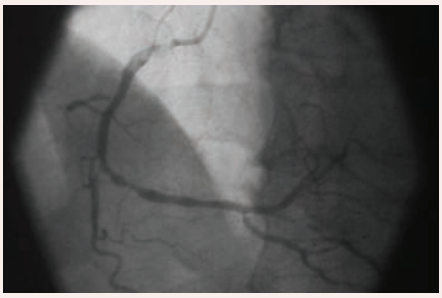


Photo 1. Monotroncular lesion of the right coronary with CD3 stenosis and subocclusive stenosis of an important branch of the RCA.

Photo 2. The Metis™ *shaping ribbon* (0.6 g) guidewire allows to reach and cross over distal lesions easily.

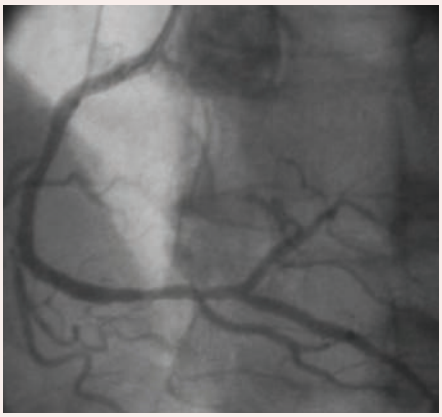


Photo 3. Final result.

coronary arteries. With the Blue Metis™, I discovered all the tactile sensation qualities of torque 1:1 as well as the crossing efficiency of CTO guidewires during classic angioplasty procedures. Moreover, this type of guidewire has excellent results during bifurcation procedures requiring re-crossing stent mesh, torque 1:1 thus becoming a major asset.

The excellent longevity of the *tip* should also be noted; it allows treatment of pluritroncular patients at the same time. ■

Conclusion

▶ The 0.014" Metis™ guidewire range offers a wide selection both as regards *push* and distal rigidity (0.6 g/1 g /2 g), and also the technology of the distal core (*shaping ribbon* or *core to tip*).

▶ Its efficiency is even better in the case of complex and tortuous lesions but also during long percutaneous coronary interventions (tri-troncular patients.)

▶ Finally, the COMED range of guidewires dedicated to chronic total occlusion (CTO), is eagerly awaited, even more so if the performance of the Metis™ guidelines is confirmed. ●

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