The Use of the TORNUS Catheter - a Novel Penetration Catheter in Five "Uncrossable" Lesions

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Severely calcified coronary arteries remain a challenge for interventional cardiologists. Several solutions are available including rotablation, cutting balloons etc, but are not always effective. A novel penetration catheter –Tornus catheter (Asahi Intecc, Aichi, Japan), comprising 8 stainless wires in microscrew design, has been developed for treatment of such lesions, exchange of the wire to a rotablator wire or crossing and treating the lesion with conventional balloons and stents. The Tornus catheter is available in 2.1 and 2.6 French. It is advanced by a simple counterclockwise rotation and retrieved by clockwise rotation.

We describe 5 cases of severely calcified lesions, including 1 primary PCI which could not be crossed with even a 1.25mm balloon.

After crossing with Tornus catheters 2.1 and 2.6 French, it was possible to cross 3 lesions with balloons and stent with good results. Two other lesions were crossed with the small Tornus only: one was rotablated and stented and one only balloon-dilated.

We believe that the Tornus is a new important tool in challenging cases, when everything else has failed. It allows crossing with a balloon or a rotablator wire as needed, in order to complete the revascularization procedure.