CORPATH® PCI OF TOTAL OCCLUSION AND TRIPLE VESSEL DISEASE

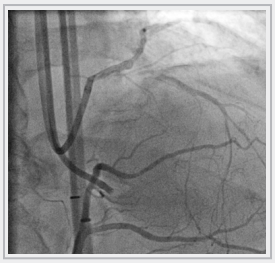
Case History

An 83-year-old male with dyspnea on exertion for 4 weeks had a diagnostic cardiac catheterization and was given the option of CABG or PCI considering multi-vessel disease and total occlusion of the left anterior descending artery (LAD). The patient opted for PCI.

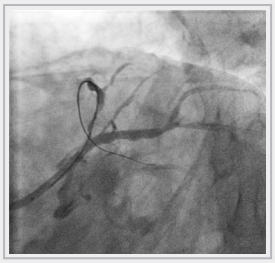
Robotic PCI Procedure

Standard interventional techniques were used to gain dual access with an 8F AR2 guide catheter to the RCA from the right femoral artery to view collaterals to the LAD and an 8F JCL4 guide catheter to the LM from the left femoral artery. The total occlusion in the LAD was crossed manually using the Fielder XT wire. The JCL4 guide catheter and the guidewire were then connected to the CorPath cassette, which was also loaded with a 2.5x20mm pre-dilatation balloon.

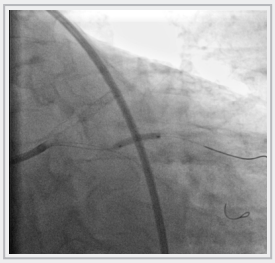
From the interventional cockpit, the pre-dilatation balloon was advanced and crossed the LAD lesion. PTCA was performed using CorPath, and the pre-dilatation balloon was exchanged for a PROMUS Premier DES 2.5x24mm followed by a second PROMUS Premier DES 2.75x8mm stent in the CorPath cassette. The stents were positioned robotically, and the guidewire was left in the LAD to provide support. The LAD wire was placed in the parking track of the cassette.



Access: right femoral AR2 8FR to RCA in order to view collateral vessels to LAD. Left femoral JCL4 to left main



LAD wired manually. Balloon and stent were placed robotically and inflated. LAD wire placed in CorPath cassette parking track. Second guidewire advanced into circumflex robotically



LAD wire pulled back. Circumflex guidewire placed in parking track. LAD guidewire advanced robotically to the OM1 branch. OM1 ballooned and stented

Physician: Michael Ragosta, MD, FACC
Director, Cardiac Catheterization Laboratories
University of Virginia Medical Center

Fellow: Deepak Thomas, MD

Facility Details

University of Virginia Medical Center

Charlottesville, VA

Devices Used

- CorPath Vascular Robotic System
- Judkins Curved Left (JCL4) Guide Catheter (Cordis)
- Amplatz Right (AR2) Guide Catheter (Cordis)
- Fielder XT Guidewire(Abbott)x2
- Emerge™ RX 2.5x20 PTA Balloon Dilatation Catheter (Boston Scientific)
- Emerge™ RX 2.5x15 PTA Balloon Dilatation Catheter (Boston Scientific)
- NC Quantum Apex™ RX 3x12 PTA Balloon Dilatation Catheter (Boston Scientific)
- NC Quantum Apex™ RX 3.5x8 PTA Balloon Dilatation Catheter (Boston Scientific)
- 2.5x24mm PROMUS Premier™ DES (Boston Scientific)
- 2.75x8mm PROMUS Premier™ DES (Boston Scientific)
- 2.75x20mm PROMUS Premier™ DES (Boston Scientific)
- 3x20mm PROMUS Premier™ DES (Boston Scientific)

CorPath
Precision Vascular Robotics

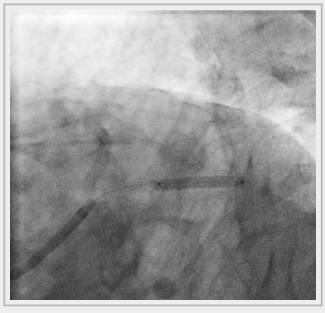
CorPath PCI of Total Occlusion and Triple Vessel Disease

Using robotic controls, a second guidewire was used to cross the circumflex. Once the circumflex wire was in position, the LAD wire was removed. Next, the circumflex wire was placed in the parking track in the CorPath cassette, and a new wire was robotically placed in the OM1. PTCA was performed in the OM1 using CorPath and the pre-dilatation balloon was exchanged for a PROMUS DES 2.75x20mm stent, which was precisely manipulated using the CorPath millimeter movement feature. The circumflex wire was then placed in the drive track of the CorPath cassette and PTCA was performed in the circumflex using CorPath. The dilatation balloon was exchanged for a PROMUS DES 3x20mm intentionally resulting in a T-stent jailing the OM1.

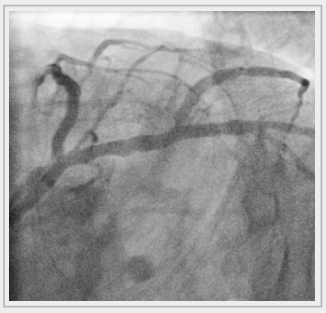
At the bedside, fluoroscopy equipment showed that 1,905 mGy was emitted during this complex procedure. By performing the majority of the procedure at CorPath's interventional cockpit, the scatter from 1,234 mGy of radiation was avoided.

Results / Conclusion

Multiple devices were easily integrated with CorPath System. The CorPath System provided enhanced visualization to facilitate successful, precise stent manipulation and significantly improved physician ergonomics while reducing radiation exposure to the operator.



OM1 guidewire removed. A T-stent robotically positioned at the OM1 ostium



Final result

"This case demonstrates that the CorPath System can be used to safely treat complex cases, including triple vessel disease with a total occlusion of the LAD. The multiple devices often needed in these cases can be easily integrated with and exchanged for other devices in the CorPath cassette. Being seated and shielded from scatter radiation is a vast improvement from standing with heavy leaded equipment."

– Michael Ragosta

MD, FACC

To learn more, call **1-800-605-9635** or email: **sales@corindus.com**

CorPath 200 System is intended for use in the remote delivery and manipulation of coronary guidewires and balloon/stent catheters during PCI procedures.

Corindus Vascular Robotics

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309 Waverley Oaks Road, Suite 105 | Waltham, MA | 02452
www.corindus.com | sales@corindus.com