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Vascular Intervention // Astron Self-Expanding Stent System/0.035"/OTW



Case Report





Case report

Totally occluded external iliac artery, two stent treatment

Author

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1. Patient history

A 64 year old female patient with lifestyle limiting claudication was evaluated for peripheral artery disease. The diagnostic angiogram was performed from the contralateral leg and revealed a totally occluded segment in the external iliac artery with distal filling through collaterals. Lesion length was 105 mm with a reference vessel diameter 6.2 mm proximally and 5.9 mm distally (as measured by an independent core lab).



2. Procedure description

Pre-dilatation

The lesion was crossed with a 0.018" V-18 ControlWire guide wire (Boston Scientific), which was then switched to a 0.035" Versacore guide wire (Abbott Vascular). Following guide wire crossing, a 5.0 mm x 40 mm Admiral Xtreme balloon (Medtronic) was used to dilate the lesion. Post-dilation showed a return of brisk flow through the external iliac, with slight recoil and some dissection in the external iliac, requiring treatment with a stent.





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2. Procedure description

Stent implantation

Due to the lesion length, two **Astron**[®] stents (BIOTRONIK, 8.0 mm x 80 mm, 9.0 mm x 40 mm) were implanted in the external iliac in an overlapped configuration. To check the positioning of the second stent while preparing to deploy, a roadmap was possible due to the 5.2F proximal shaft, allowing contrast injection through a 6F sheath while the device was in place.The stents were then post-dilated with 7.0 mm x 80 mm PowerFlex balloon (Cordis/Cardinal Health) to ensure proper dilation of the stents.



3. Final results and conclusion

After post-dilation, the patient showed brisk flow through the external iliac with no evidence of dissection or stenosis. 3-year follow-up on the patient showed a 1.0 ABI in the left leg and triphasic waveforms throughout both legs.



Conclusion

This case illustrates a long external iliac total occlusion treated with two **Astron** stents. Because stenting is the standard of care for lesions in the iliac territory, a flexible stent with sufficient chronic outward force is necessary. The **Astron** stent not only provides a simple deployment mechanism, but also proBIO passive coating, which seals the stent from the surrounding tissue and reduces ion release. The BIOFLEX-I study showed a low 2.1%¹, 12-month MAE rate for the **Astron** stent, illustrating its utility in the iliac territory.

ABI = Ankle-Brachial Index

Burket M, Brodmann M, Jaff M. CRT-320 Clinical Outcomes Of The BIOFLEX-I Study: Utilization Of Self Expanding Stents In The Iliac Arteries, JACC: Cardiovascular Interventions, Vol 8, Issue 2, Supplement, 2015, Page S2, ISSN 1936-8798, doi.org/10.1016/j.jcin.2014.12.012.

Astron

Indicated for improving luminal diameter in patients with iliac atherosclerotic lesions in vessel reference diameters between 4.3 mm and 9.5 mm and lesion lengths up to 105 mm



Clinically proven stent for the treatment of iliac disease



Pull-back delivery system for simple stent deployment



5.2F proximal shaft for contrast injection with device in sheath

Technical Data	Stent					
	Catheter type	OTW				
	Recommended guide wire	0.035"				
	Stent material	Nitinol				
	Strut thickness	225 μm (ø 10 mm = 230 μm)				
	Stent coating	proBIO® (Amorphous Silicon Carbide)				
	Stent markers	4 gold markers each end				
	Sizes	ø 7 - 10 mm; L: 30 - 80 mm				
	Proximal shaft	5.2F, hydrophobic coating				
	Usable length	72 and 120 cm				

Ordering Information	Stent ø (mm)	Catheter length 72 cm Stent length (mm)					
		30	40	60	80		
	7.0	364645	364646	364647	364648		
	8.0	364649	364650	364651	364652		
6F	9.0	364653	364654	364655	364656		
	10.0	-	364657	364658	364659		

	<mark>Stent</mark> ø (mm)	Catheter length 120 cm Stent length (mm)						
		30	40	60	80			
	7.0	64660	364661	364662	364663			
6F	8.0	364664	364665	364666	364667			
	9.0	364668	364669	364670	364671			

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