

Drescher Catheter Case Study

AngioDynamics is proud to showcase the Drescher Mariner[®] Catheter. This 4F catheter is a device that enables selective catheterization and angiography in patients with chronic limb ischemia (CLI). The low-profile outer diameter and hydrophilic coating are designed to provide smoother navigation through tortuous and distal anatomy. The robust, braided shaft resists kinking and may allow for good torque response of the radiopaque tip, even at a length of 130 cm. In addition, there are two sideholes within the catheter tip. Finally, the demarcated angulation of the tip facilitates access into numerous side branches and vessels, one being the anterior tibial artery.

In 2010, 202 million people worldwide and 8 million people in the US are affected by PAD. PAD presentation is most common in the lower extremities^{1,2}. Lower extremity PAD is the third leading cause of atherosclerotic cardiovascular morbidity, following coronary artery disease and stroke¹.

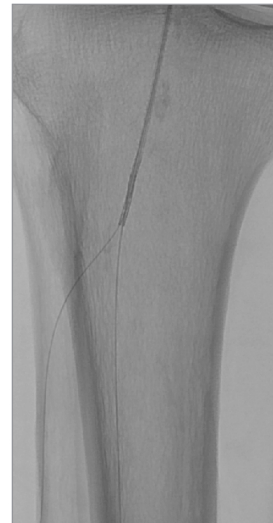
Risk factors include smoking, high blood pressure, atherosclerosis, diabetes, high cholesterol and advanced age. While smoking is the main risk factor, an estimated 1 out of every 3 diabetics over the age of 50 has PAD^{2,3,4}.

While several stages of PAD are common, progression to chronic limb ischemia (CLI) includes symptoms of rest pain and tissue death with slow to absent ulcer healing⁵. Patients need to be treated aggressively in order to heal ulcers and save the limb^{5,6}. Revascularization can be obtained through endovascular treatment or bypass surgery. A variety of factors must be considered when choosing one treatment over another. If the physician and patient agree that non-invasive therapy is the best option, there are a multitude of options in one's armamentarium to gain access, diagnose and treat.

One such indispensable device for diagnosis is the Drescher catheter.



(Figure 1) Total occlusion of the popliteal artery



(Figure 2) Drescher catheter advanced over hydrophilic guidewire to the left distal popliteal artery



(Figure 3) Complete patency of the left popliteal artery with two vessel runoff

CASE PRESENTATION

Patient is a 58 y/o female with PAD, diabetes and coronary artery disease. She presented with CLI and tissue loss in the foot. Color duplex imaging demonstrated popliteal artery occlusion, ABI 0.32. Access was gained in the contralateral right common femoral artery and the Drescher catheter was advanced over the aortic bifurcation to the contralateral left popliteal artery. Subsequent selective angiography showed total occlusion of the popliteal artery (Figure 1).

The Drescher catheter was advanced over a hydrophilic guidewire to the left distal popliteal artery (Figure 2). Next, successive access was gained with the Drescher catheter into the left posterior tibial and peroneal arteries, respectively. Pre-dilation was performed with two, 2.0 mm balloons in the posterior tibial and peroneal arteries, followed by angioplasty with a 4.0 mm drug-coated balloon. Final angiography showed complete patency of the left popliteal artery with two vessel runoff (Figure 3).

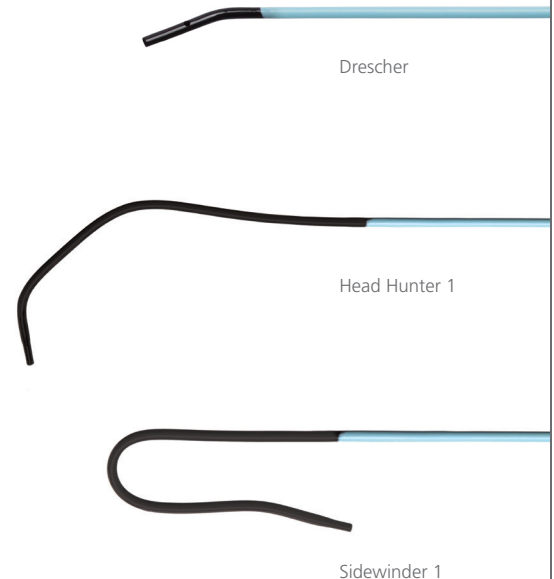
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Mariner Hydrophilic-Coated Angiographic Catheter

The Mariner hydrophilic-coated angiographic catheter is designed to deliver contrast media to areas of vascular anatomy. The Mariner angiographic catheter features AngioDynamics' patented Soft-Vu* catheter technology—an atraumatic Super-radiopaque* tip, which is highly visible under fluoroscopy—combined with Duration* coating technology. The Duration hydrophilic coating technology significantly reduces catheter surface friction, permitting smoother navigation through challenging vasculature with optimal handling and control.

The Mariner catheter is available in:

- Flush and selective shapes
- Lengths ranging from 40 cm to 150 cm
- 4F and 5F
- .035" and .038" diameters



¹Fowkes, et al. Comparison of global estimates of prevalence and risk factors for peripheral artery disease in 2000 and 2010: a systematic review and analysis. *The Lancet*. 2013; 382; 9901:1329–1340.

²http://www.cdc.gov/dhdsp/data_statistics/fact_sheets/fs_pad.htm

³<http://www.diabetes.org/living-with-diabetes/complications/heart-disease/peripheral-arterial-disease.html>

⁴<http://www.nhlbi.nih.gov/health/health-topics/topics/pad/>

⁵*BMJ* 2000, 320:854-857

⁶<http://care.diabetesjournals.org/content/33/5/977.full.pdf>

IMPORTANT RISK INFORMATION

INDICATION FOR USE: AngioDynamics Angiographic Catheters are designed for use where angiographic diagnosis is indicated.
CAUTION: Federal (USA) law restricts these devices to sale by or on the order of a physician.

WARNINGS AND PRECAUTIONS: Reuse of single-use devices creates a potential risk of patient or user infections. Contamination of the device may lead to injury, illness or death of the patient. Reprocessing may compromise the integrity of the device and/or lead to device

failure. Contents sterile in unopened, undamaged package. Do not use if opened or any sign of product damage is visible. AngioDynamics Angiographic Catheters should be used only by physicians with a thorough understanding of angiography and percutaneous interventional procedures. Do not insert catheters directly through synthetic vascular grafts. Insert through a sheath introducer. AngioDynamics Angiographic Catheters are designed for use with specific guidewire diameters. The recommended

maximum guidewire diameter is specified on the catheter label. Optimal guidewire size and judicious use are recommended. Please see package insert for complete list of warnings and precautions.

POTENTIAL COMPLICATIONS: The following adverse reactions have been reported and are associated with the use of angiographic catheters: Thrombus formation, emboli, arterial wall damage, plaque dislodgment, hematoma, cardiac arrhythmias, myocardial infarction, stroke, and death.



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