# Embolization of a Renal Artery Arteriovenous Malformation Using Interlock™-18 DetachableCoils

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## CASE PRESENTATION

A 46-year-old woman with an arteriovenous malformation of the renal artery of the left kidney underwent angiographic evaluation, which revealed a large anastomosis of the renal artery with the venous system (Figure 1).

## PROCEDURE DESCRIPTION

A Bern-shaped Direxion™ Torqueable Microcatheter with a Fathom™-16 Guidewire was used to distally select the feeding vessel. A first Interlock™-18 detachable coil was deployed (Figure 2).

To let the Dacron® fibers work, we waited a few minutes, but the patency persisted.

The same Direxion™ Microcatheter was used to detach a second and third Interlock™-18 coil (Figure 3). The torquability of the microcatheter allowed us to effectively position these coils and preserve the renal function.

## FOLLOW-UP

The last angiographic control from the diagnostic catheter showed good results (Figure 4).

The anastomoses point was excluded and the renal vascularization was maintained, preserving the renal function. ■

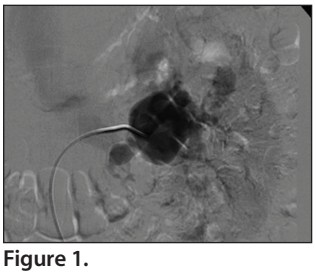

Figure 1.

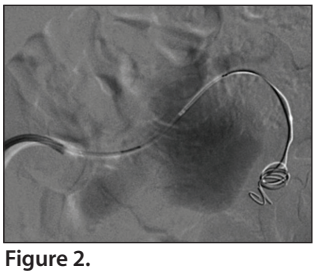

Figure 2.

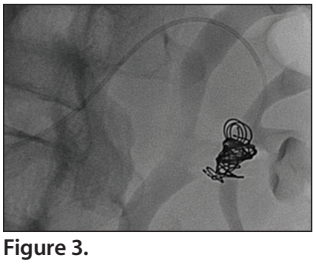

Figure 3.

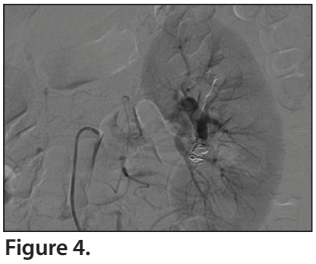

Figure 4.

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## Direxion Direxion HI-Flo

***CAUTION:*** *Federal law (USA) restricts this device to sale by or on the order of a physician. Rx only. Prior to use, please see the complete "Directions for Use" for more information on Indications, Contraindications, Warnings, Precautions, Adverse Events, and Operator's Instructions.*

**INTENDED USE/INDICATIONS FOR USE**
The Direxion and Direxion HI-FLO Torqueable Microcatheters are intended for peripheral vascular use. The pre-loaded Fathom and Transend Guidewires can be used to selectively introduce and position the microcatheter in the peripheral vasculature. The microcatheter can be used for controlled and selective infusion of diagnostic, embolic, or therapeutic materials into the vessel.

**CONTRAINDICATIONS**
None known.

**WARNINGS**
- Never advance or withdraw an intravascular device against resistance until the cause of resistance is determined by fluoroscopy. Movement of the microcatheter or guidewire against resistance may result in damage or separation of the microcatheter or guidewire tip, or vessel perforation.
- This Direxion Microcatheter family is not intended for use in the coronary vasculature or neurovasculature.
- The Direxion HI-FLO Microcatheter is not designed for the delivery of embolic coils.
- Use of excessive force to manipulate the microcatheter against resistance can cause a fracture in the nitinol shaft. Take care not to over-torque the microcatheter, and to relieve any tension before withdrawal by rotating the microcatheter in the opposite direction.

• This device should be used only by physicians thoroughly trained in percutaneous, intravascular techniques and procedures.
• Do not introduce the microcatheter without guidewire support as this may cause damage to the proximal shaft of the catheter.
• Because the microcatheter may be advanced into narrow sub-selective vasculature, repeatedly assure that the microcatheter has not been advanced so far as to interfere with its removal.

**ADVERSE EVENTS**
The Adverse Events include, but are not limited to: allergic reaction, death, embolism, hemorrhage/hematoma, infection, pseudoaneurysm, stroke, vascular thrombosis, vessel occlusion, vessel spasm, vessel trauma (dissection, perforation, rupture).

## Fibered IDC
## Interlock Fibered IDC Occlusion System
## IDC Interlocking Detachable Coil

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**INTENDED USE/INDICATIONS FOR USE**
The Interlock IDC Occlusion System is a modified interlocking detachable coil. The Interlock IDC Occlusion Systems are indicated for obstructing or reducing blood flow in the peripheral vasculature during embolization procedures. These devices are not intended for neurovascular use.

**CONTRAINDICATIONS**
None known.

**PRECAUTIONS**
Do not attempt to use the Interlock - 35 Fibered IDC Occlusion System with a soft-walled delivery catheter.
Do not advance the Interlock IDC Occlusion System if it becomes lodged within the catheter. Determine the cause of the resistance and replace the catheter and coil if necessary.

**ADVERSE EVENTS**
The complications that may result from a peripheral embolization procedure include, but are not limited to: complications related to catheterization (e.g., hematoma at the site of entry, clot formation at the tip of the catheter and subsequent dislodgement, nerve and vessel dissection or perforation, etc.), pain, hemorrhage, infection necessitating medical intervention, foreign body reactions necessitating medical intervention, emboli, ischemia, vasospasm, tissue necrosis, undesirable clot formation of the vasculature, recanalization, death, temporary neurological deficit.

## Coils 18-Vortx Dia Strt Fig8 MultiLp CH

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**INTENDED USE/INDICATIONS FOR USE**
Boston Scientific's 0.018 Fibered Platinum Coils are intended for arterial and venous embolizations in the peripheral vasculature.
The Coil Pusher-16 is intended to be used in conjunction with a microcatheter to deliver and deploy 0.018 pushable occlusion coils.

**CONTRAINDICATIONS**
None known.

**PRECAUTIONS**
- The long-term effect of this product on extravascular tissues has not been established, so care should be taken to retain this device in the intravascular space.
- Do not advance the coil with force if the coil becomes lodged within the microcatheter. Determine the cause of resistance and replace the microcatheter and the coil when necessary.
- Replace the microcatheter if increased resistance is noted during coil delivery.

**ADVERSE EVENTS**
The complications that may result from a peripheral embolization procedure include, but are not limited to: complications related to catheterization (e.g., hematoma at the site of entry, vessel injury, etc.), death, emboli, foreign body re actions necessitating medical intervention, hemorrhage, infection necessitating medical intervention, ischemia, pain, recanalization, temporary neurological deficit, tissue necrosis,



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