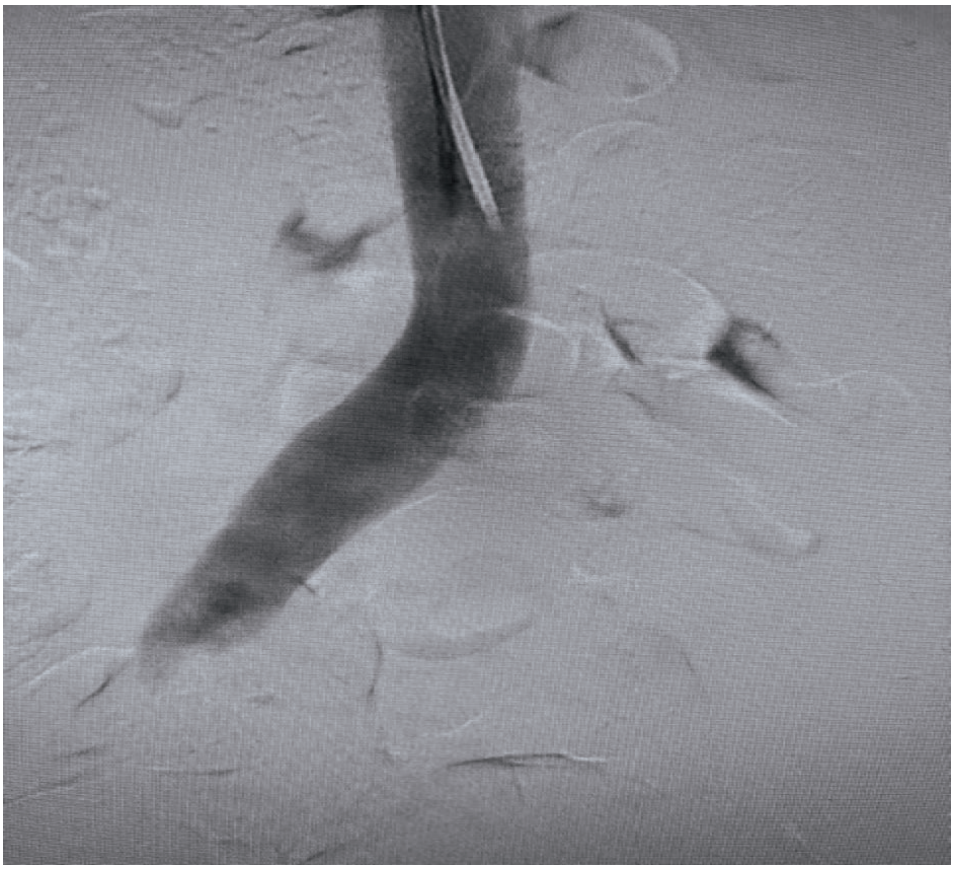
REFLOW MEDICAL
THE PULSE OF MEDICAL INGENUITY

Wingman™ Enables Crossing of Fibrotic Venous Occlusions

CASE HISTORY

A 37-year-old woman, with Factor V Leiden and a history of numerous deep venous thrombosis (DVTs), pulmonary embolism (PEs), prior stroke with persistent and residual weakness on her left side, and prior left iliac vein stenting with re-occlusions, presented with left lower extremity pain and swelling for a week.



Baseline angiography

PROCEDURE

Lower extremity ultrasound was performed and showed what appeared to be a chronic DVT of the left lower extremity extending into the iliac veins. The patient was taken to the cath lab where her right internal jugular was accessed with a micropuncture needle under ultrasound guidance. A 7Fr precision sheath was placed. A multipurpose catheter was placed into the inferior vena cava. A venogram revealed a flush occlusion of the left common iliac vein stent. An additional venogram was performed from below after accessing the greater saphenous vein, which showed occlusion of all the vessels at the common femoral vein into the deep femoral vein and femoral veins.

PHYSICIAN

Jay Mathews
MD, MS, FACC, FSCAI
Interventional Cardiologist

"Wingman is an essential tool for crossing dense, fibrotic venous CTOs"

Dr. Mathews is a board-certified Interventional Cardiologist. He is the Director of the Cardiac Cath Lab, Co-Director of the Structural Heart Program, and Director of the PERT Program at Manatee Memorial Hospital in Bradenton, Florida. He graduated from Tufts University School of Medicine and completed his Residency and Internal Medicine training as well as Cardiology, Advanced Cardiovascular Imaging, and Interventional/Endovascular Fellowships at Washington University School of Medicine/Barnes-Jewish Hospital. His training included coronary, structural and peripheral interventions.

PRODUCTS USED

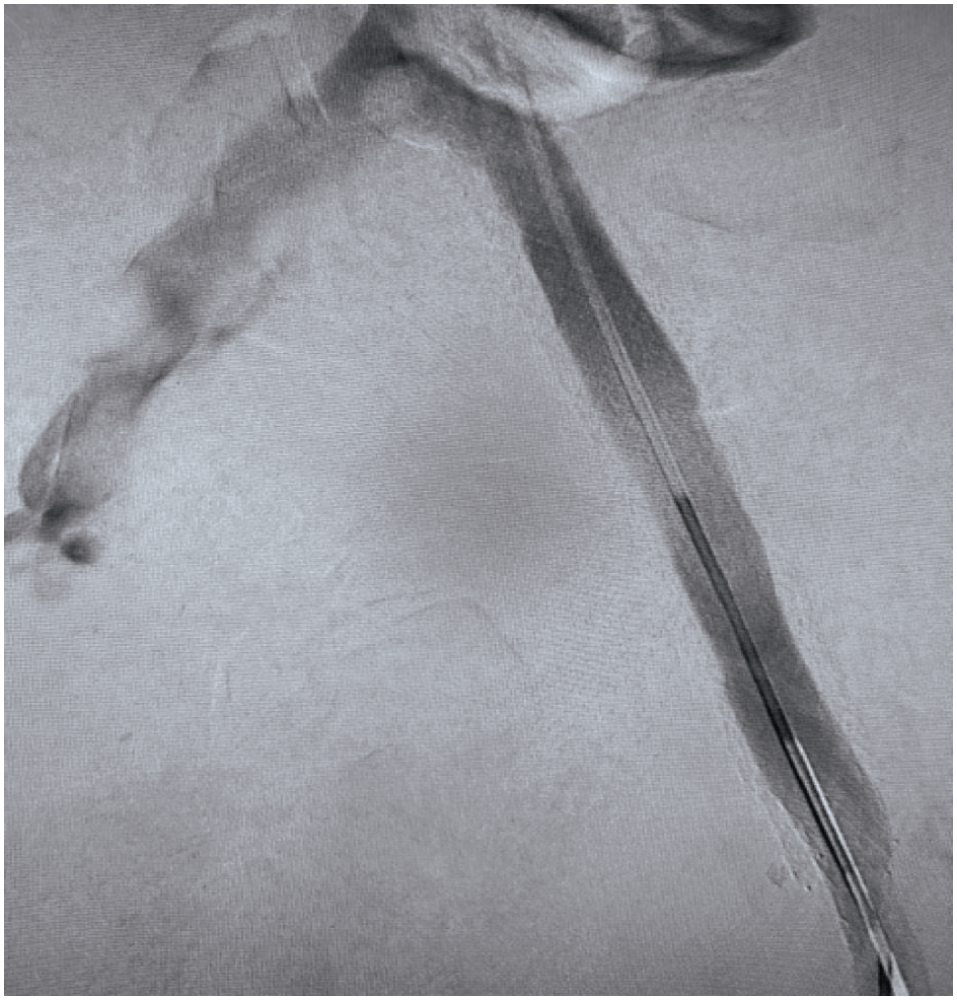
REFLOW wingman™

Wingman™ Provides Support for Crossing

An 8 X 90cm BMX 96 sheath was placed from above. The vein was accessed with a Select™ catheter and an Astato® 40 guidewire was used to attempt to cross the occluded common/external iliac vein stent. Several balloon dilatations were performed once within the stent, but the distal stent was too fibrotic to cross. Dr. Mathews switched to a Spex™ catheter, alternating with a Wingman™ .035 catheter, to further progress down the chronically occluded iliac and common femoral veins. He was able to cross all the way down to the distal femoral vein. After swapping out for an Advantage™ guidewire, additional PTA was performed. RevCor™ thrombectomy was performed within the stent. Aspiration of chronic material was performed along with additional balloon dilatation of the femoral vein to the iliac vein. IVUS revealed excellent recanalization without significant residual fibrotic/thrombotic material. Final venography showed excellent inflow throughout the venous system into the inferior vena cava.

CASE CONCLUSION

There was successful revascularization of the common/external iliac vein stent and of the chronically occluded common femoral vein. The Wingman™ and Spex™ microcatheters were instrumental in enabling true luminal crossing and allowing enough pushability to traverse the fibrotic CTO that could not be crossed with traditional CTO wires. This allowed for further treatment and ultimately a widely patent left iliac and femoral venous system.



Post Angioplasty