

DVT. Know More.

Isolated Thrombolysis for the Treatment of Deep Vein Thrombosis

Bilateral Femoral Popliteal Deep Vein Thrombosis (DVT) treated with Trellis™ - 8 Peripheral Infusion System

Physicians

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Background

A patient was admitted to the hospital with pain and swelling in both lower extremities. Dr. Bohnn was consulted by the patient's Internal Medicine physician to evaluate the patient for Deep Vein Thrombosis (DVT). Duplex Ultrasound confirmed venous thrombus extending bilaterally from the popliteal veins into the common femoral veins in both lower extremities (Figs. 1, 2). Dr. Bohnn scheduled the patient for a bilateral Isolated Pharmacomechanical Thrombolysis Procedure with the Trellis™ - 8 Peripheral Infusion System.

Procedure

The patient was brought to the Interventional Radiology suite and placed in the prone position. Both legs were prepped and draped, using sterile technique, with the popliteal fossa visible for access.

Ultrasonography was used to identify and cannulate the left popliteal vein using a Micropuncture needle and wire. Following cannulation of the vessel, a coaxial Microintroducer sheath was introduced into the vessel. The right popliteal was then accessed in the same fashion. The inner dilators of each Microintroducer were removed and 0.035" x 260cm guidewires were placed, followed by exchange of each Microintroducer sheath for 8Fr x 11cm Introducers.

A 90cm guiding catheter was placed, through the left access sheath and guided into position over the wire until the catheter tip was positioned at the level of the external iliac vein. Contrast was injected, through the guiding catheter to obtain venographic images of the left Iliac and inferior vena cava (IVC). The 90cm guide catheter was pulled toward the access site to position the catheter tip in the external femoral vein and contrast was injected.

Thrombus was noted extending from the external femoral vein



Fig. 1
Initial Left Iliocaval Venogram



Fig. 2
Initial Right Iliocaval Venogram

into the common femoral vein. A 120cm x 30cm Trellis™ - 8 Peripheral Infusion System was placed, over the exchange length wire and positioned with the proximal balloon at the level of the external iliac vein.

The exchange wire was removed and replaced with the Trellis System's oscillating wire and drive unit. Using a 1:3 contrast to saline ratio solution, the proximal balloon was inflated followed by subsequent inflation of the distal balloon. Ten milligrams of t-PA were infused over the course of 10 minutes in the presence of the oscillating wire rotating at 3000RPM.

An aspiration syringe was connected and, following deflation of the distal Trellis System catheter's balloon, 45cc of liquified clot and t-PA were aspirated from the segment. Leaving the proximal balloon inflated, the Trellis System catheter was pulled downward, toward the sheath, until the distal balloon was positioned inside the distal portion of the 8Fr Introducer Sheath.

The proximal balloon was reinflated and the procedure was repeated. Following treatment with the Trellis System, the oscillating wire was removed and access was re-established through the exchange for an exchange length guidewire. The proximal balloon was deflated and the Trellis System catheter was exchanged for the 90cm guiding catheter.

Contrast was injected and two areas of chronic stenosis were noted. The proximal area was treated with a 10mm x 40mm PTA balloon followed by the placement of a 10mm x 60mm Wallstent. The distal stenosis was treated with a 6mm x 40mm PTA balloon.

Final Venogram of the left side showed complete resolution of the thrombus/obstructed areas and restoration of flow (Fig. 3). The Trellis System procedural steps were next repeated on the right leg, starting proximal and treating distally. Post-procedural venogram showed chronic obstruction in the lower segment of the femoral vein with clot resolution in the proximal portion (Figs. 4, 5). The distal segment of the vessel was treated with an 8mm x 60mm PTA balloon and final Venogram showed restoration of flow to the right leg as well (Fig. 6).

Conclusion

The patient was given a subcutaneous injection of Lovenox immediately following the procedure with orders to start UF Heparin 2 hours post-procedure.

An order for compression stockings was written and the patient was admitted back to the regular hospital care unit for post operative care. No overnight lysis was needed following the procedure.

To consider your patients for Isolated Pharmacomechanical Thrombolysis contact Dr. Byron Bohnn at (713) 527-5180.



Fig. 3
Left Femoral Venogram Post-Trellis



Fig. 4
Right Femoral Venogram Post-Trellis



Fig. 5
Left Post-PTA and Stent Venogram

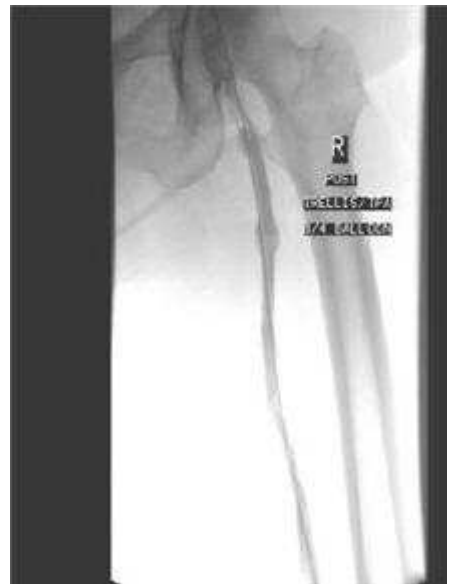


Fig. 6
Right Post-PTA Venogram

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