

# Novel Approaches in the Endovenous Management of Massive Ilio-Femoral Deep Venous Thrombosis

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## Case Presentation

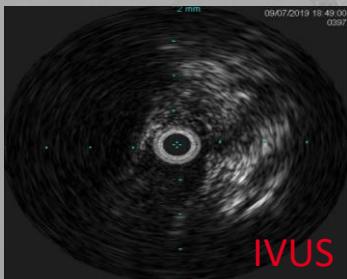
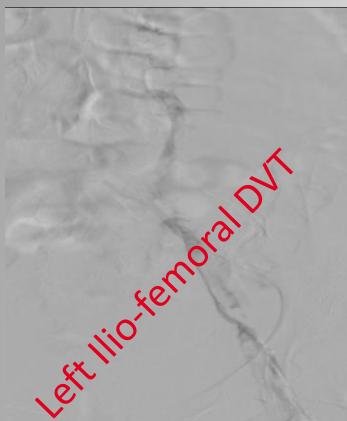
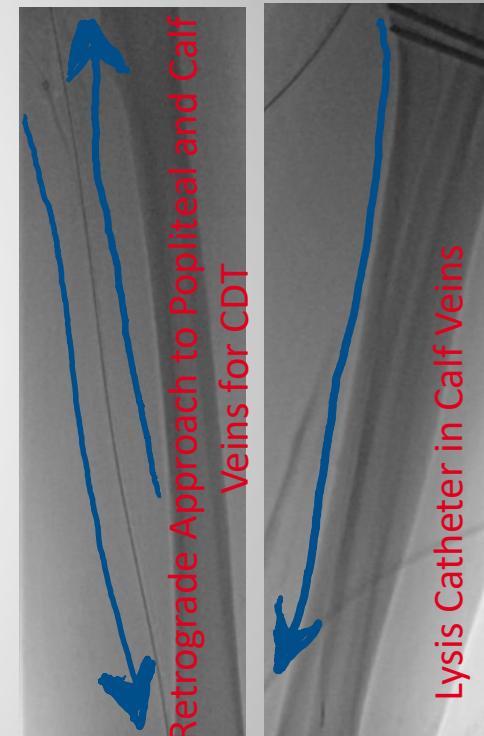
19 year-old woman presented with a massive left ilio-femoral deep venous thrombosis [extending from the distal inferior vena cava to the lower segment of the calf veins] 14 days after giving birth to her second child. Her clinical picture was consistent with 'Phlegmasia Cerulea Dolens'. Following initial mechanical thrombectomy [Angiojet-Zelante] and catheter directed thrombolysis [24-hours of Alteplase at 2mg/hour], the relook venogram showed minimal improvement in flow with no improvement in symptoms.

## Intervention

Intravascular ultrasound confirmed occlusion of the left common iliac vein from right common iliac artery compression [May-Thurner syndrome] with significant thrombus burden. We went ahead and stented the distal IVC and the left common iliac vein. Repeat mechanical thrombectomy [using Penumbra CAT 8] followed with CDT:

- Antegrade approach with lysis catheters from the left iliac to femoral veins [via left LSV and CFV].
- Retrograde approach with a lysis catheter in the popliteal and deep calf veins via the proximal left femoral vein.

Following 12-hours of thrombolysis, there was significant improvement in flow with dramatic improvement in symptoms. The stent was widely patent. Follow-up ultrasound at one week and one month showed no residual thrombotic disease with a patent stent.



## Highlights

To achieve optimal endovascular success in treating ilio-femoral DVT, it is very important to achieve good inflow and outflow. Our case demonstrates new approaches in the endovenous management of ilio-femoral DVT :

- Stenting an occluded left common iliac vein despite significant thrombotic burden to improve outflow and efficiency of thrombolysis.
- Placement of retrograde lysis catheter into the deep calf veins from the femoral venous access to improve venous inflow.