

Aspiration and mechanical thrombectomy for acute deep venous thrombosis

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Objective

We assessed the outcome of Penumbra aspiration and mechanical thrombectomy in treating ilio-femoral and IVC deep- vein thrombosis with catheter directed thrombolysis (CDT).

Method

Retrospective review of patients admitted with ilio-femoral DVT or IVC thrombus treated with Indigo Penumbra system from July 2017 to April 2019. Technical success was achieved when >75% resolution of the thrombus within 48-hours of adjunct CDT. The secondary outcome was the patency of the treated segment without recurrence of DVT within six months.



Figure 1
Initial presentation

Results

Twelve patients were treated, median age 58 years (range 24-68 years), 50% male. All patients had ilio-femoral DVT and four patients had IVC involvement including one IVC filter thrombosis. Five patients had previous DVT, one patient had cancer on chemotherapy and one patient had antithrombin-3 deficiency. All patients had an estimated more than 50% of thrombus debulking. All patients had adjuvant CDT; five patients had <24 hours, two patient 25-36 hours and four patients 37-48 hours and 2-patients had 72-hours of treatment. Six patients had iliac stents. None of the patients had bleeding complications or represented with recurrent DVT within 6-months. All patients had a minimum of six months of anticoagulation.

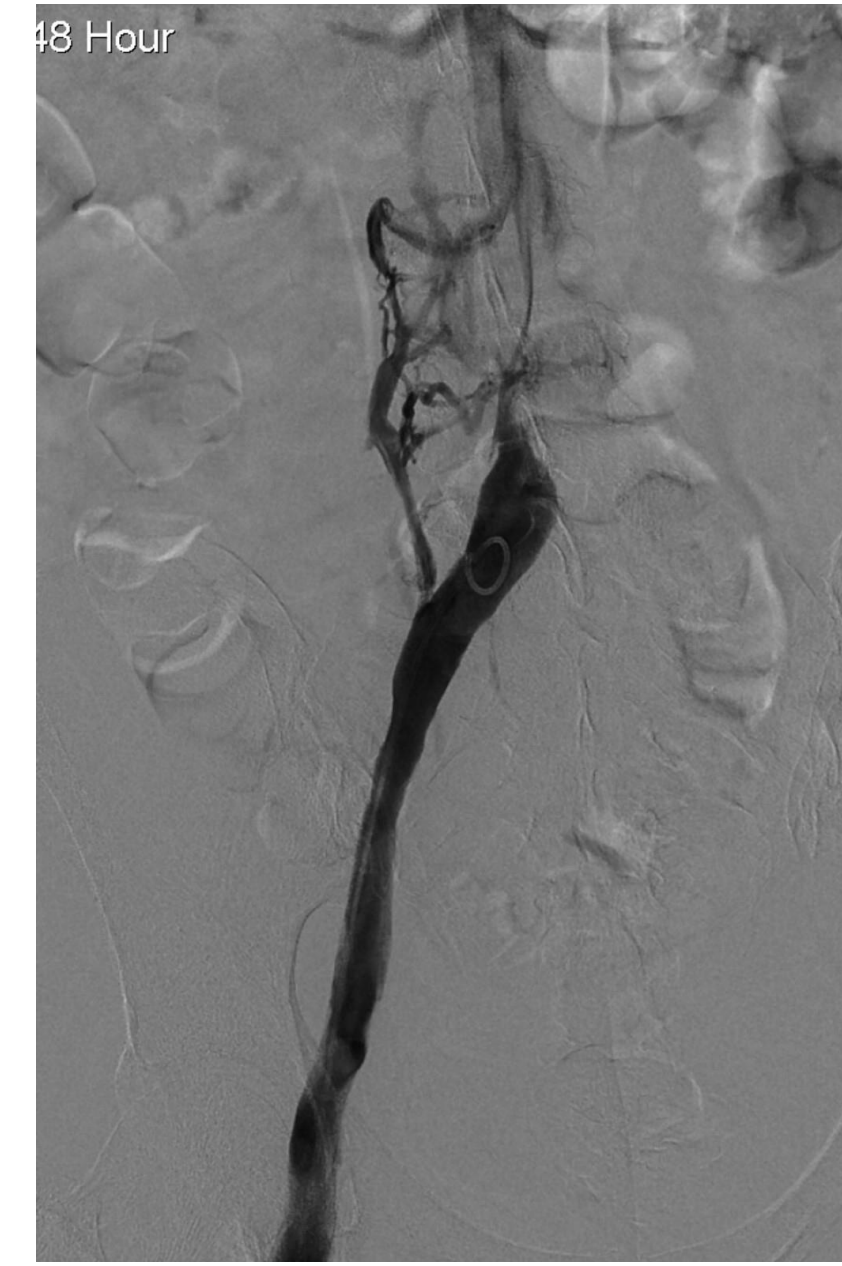


Figure 2
Post thrombolysis and mechanical suction



Figure 3
May -Thurner syndrome



Figure 4
Post stenting Final result

Conclusion

Penumbra aspiration mechanical thrombectomy is a useful adjunct in reducing the duration of CDT for patients with IVC and Ilio-femoral DVT