

Endovenous treatment of acute iliofemoral vein thrombosis with aspiration thrombectomy catheter – early clinical outcomes

Efthymios Beropoulos, Konstantinos Stavroulakis, Angeliki Argyriou, Giovanni Torsello, Theodosios Bisdas

Department of vascular and endovascular surgery, St. Franziskus Hospital, Münster, Germany



BACKGROUND

The acute deep vein thrombosis (DVT) remains a major clinical problem in the daily practice, which affects a great number of in- and out-hospital patients. The consequences vary from reduced quality of life to pulmonary embolism (PE) at the acute phase up to development of postthrombotic syndrome (PTS). Except of few indications, the vast majority of these patients are treated conservatively.

AIM

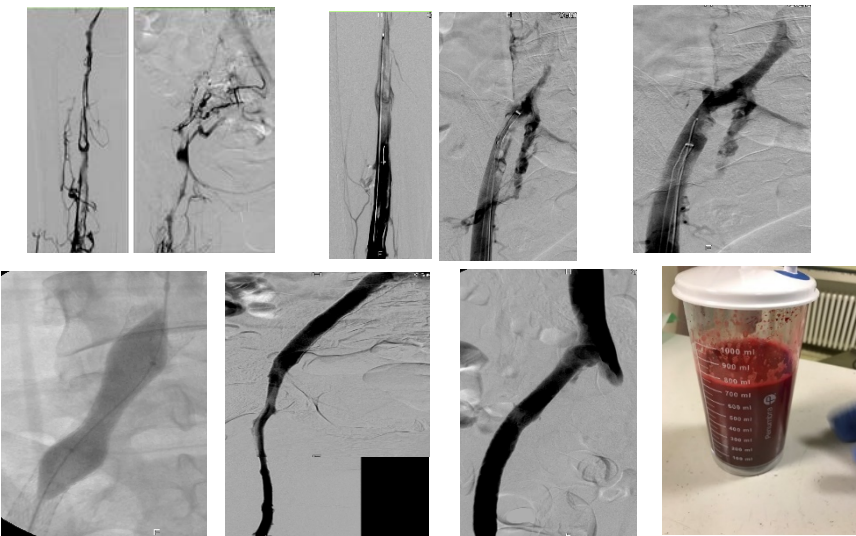
Aim of our study was to evaluate the safety and efficacy of aspiration thrombectomy catheter for the treatment of acute lower limb DVT

METHODS

Prospectively collected data of patients treated with an aspiration thrombectomy catheter (Indigo, Penumbra) for acute DVT from December 2015 to January 2018 were analyzed. In all cases, the CAT8 XTorq thrombectomy catheter was used. Adjunctive procedures and/or catheter-directed thrombolysis was left at the decision of the treating physician. Primary treatment success was defined as antegrade flow and maximal luminal stenosis of 30 % assessed on the final procedural venography and evidence of a spontaneous Doppler signal in the treated vein segment.

RESULTS

Twenty patients (female 13, mean age 57 years old) with acute iliofemoral DVT were analyzed. The median time of symptoms onset and treatment was 2 days (range, 0-3). The mean lesion length amounted 190 mm. Preoperative catheter-directed thrombolysis was applied at one case and postoperative at 6. Intraoperatively, lytic agent was used in eight cases. A cava filter was used in 5 cases for the prevention of PE. In all but one patient, venous-specific stents were deployed as adjunctive procedures. The mean length of stay amounted 5 days. There was no clinical record of postprocedural PE, whereas a clinical improvement was documented at all cases. Primary treatment success and freedom from any major or minor adverse events at 30 days amounted 100 %. During the follow-up period, an asymptomatic stent-occlusion was observed.



CONCLUSION

The endovenous aspiration thrombectomy for acute iliofemoral DVT showed very promising results regarding successful clot removal for the treatment of acute DVT.

REFERENCES

1. Mahnken et al. CIRSE standards of practice guidelines on iliofemoral stenting. CVIR. 2014;37(4):889-897.
2. Liu et al. Comparison of direct iliofemoral stenting following Angiojet rheolytic thrombectomy vs staged stenting after Angiojet rheolytic thrombectomy plus catheter-directed thrombolysis in patients with acute deep vein thrombosis. JEVT. DOI: 10.1177/1526602817714570
3. Garcia et al. Endovascular Management of Deep Vein Thrombosis with Rheolytic Thrombectomy: Final Report of the Prospective Multicenter PEARL (Peripheral Use of Angiojet Rheolytic Thrombectomy with a Variety of Catheter Lengths) Registry. JVIR. DOI: 10.1016/j.jvir.2015.01.036
4. Comerota AJ. Thrombolysis for deep vein thrombosis. JVS 2012;55:607-611
5. Vedantham et al. Quality improvement guidelines for the treatment of lower-extremity deep vein thrombosis with use of endovascular thrombus removal. JVIR. 2014;25:1317-1325

DISCLOSURES

Stockholder of Vascupedia Ltd



Contact information

Efthymios.Beropoulos@sfh-muenster.de