Single Session Continuous Aspiration Thrombectomy (SSCAT) for All DVT Utilizing Indigo Thrombectomy

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Faculty Disclosure

• Speaker’s Bureau: Penumbra
• Public Stock Holder: Penumbra

Mechanical Thrombectomy
Thrombus REMOVAL
Power Pulse Delivery
INFUSION of physician-specified fluid
Not for PE - Black Box Warning
Not stand alone, Not Stroke, Not PE, Renal Issues?

AngioJet™ Power Pulse™ Spray:
Single-Catheter Option for PMT Infusion combined with removal

30 min wall time

Lytic Disaster-How To Avoid?

Indigo System

MECHANICAL CLOT ENGAGEMENT
Proprietary Separator Technology

MAXIMIZED ASPIRATION POWER
Large Lumen Aspiration

TIP DIRECTIONALITY
For Circumferential Aspiration

ADVANCED TRACKING TECHNOLOGY
Multiple Materials Transitions
Circumferential Aspiration

Arterial Work

UE DVT Penumbra

Arterial Work

Full Vacuum

Continuous suction
Simple setup with th
Handle-free aspiration
Maximized power

UE DVT Penumbra

Arterial Work
11/16/2018

UE DVT Penumbra

19 yo with Left Iliofemoral DVT

Antegrade Flow

Final Indigo + Lytics + IVUS + Wallstent

IVC Filter Work
Abstract Title: Does Vacuum Assisted Thrombectomy for DVT Result in Extensive Blood Loss Requiring Transfusion?

Presenter(s)
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Category
Venous Thromboembolism/IVC Filters

Background
Vacuum assisted thrombectomy (VAT) is a recent tool for arterial and venous disease. Currently available systems range in catheter size from 4 french up to 24 french. VAT can remove acute thrombus but also has the potential to remove fresh blood as well. This retrospective study looked at VAT for treatment of acute DVT pathology.

Methods
This is a single-center retrospective study conducted to analyze patients undergoing vacuum assisted thrombectomy (VAT). Patients treated between October 2014 to September 2017 were reviewed. The primary endpoint was the need for post-procedure blood transfusion. The secondary endpoints were procedural success, periprocedural blood loss and target vessel reintervention (TVR).

Results
A total of 126 VAT procedures were performed. Of these 21 procedures were performed on patients with acute DVT. Success was determined as freedom from blood transfusion within 72 hours of the index procedure. Zero patients required a transfusion. Procedural success was defined as antegrade flow through the VAT treated segment. VAT was successful in 20/21 patients. 19 patients had additional thrombolytics with an average of 20.5 hours of lytics (20.5 mg Alteplase). Periprocedural blood loss was measured via preoperative and postoperative Hemoglobin/Hematocrit levels (H/H). The average preoperative H/H was 12.3/36.6 (range H: 9.2-15.1/H: 31.0 to 47.0). The average postoperative H/H was 9.8/29.5 (range H: 7.0 to 13.2/H: 21.0 to 39.0). No patient required a blood transfusion. Late success was defined as freedom from target vessel reintervention (TVR). 2 patients required a TVR (one with IVC filter placement and one with a repeat VAT at 3 months).

Conclusions
Vacuum Assisted Thrombectomy (VAT) is an emerging technology for arterial and venous thromboembolism. VAT removes acute thrombus but can remove fresh blood as well. This is the first study analyzing VAT for acute DVT patients. The study results suggest that VAT is safe and promising. VAT does not result in significant blood loss despite its strong aspiration power. Further investigation is necessary to establish a protocol for VAT in patients with acute DVT.
Conclusion

• In 2018 we can either:
  • Load Patients with Dangerous Lytics
    • OR
  • Minimize Lytics and Adopt Continuous Aspiration Thrombectomy (CAT)
  • It's Your Choice