Acute Venous Occlusive Disease: Mechanical Debulking as the First Therapy Option

Step by Step of Mechanical Thrombectomy in Venous Occlusive Disease

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✓ Nothing to Disclose
Technical Limitations

- Subintimal position of the guidewire
- Chronic Occlusion
- 250 sec of ACT not achieved
- Impossibility to pass the lesion completely with the guidewire
- Undersized or oversized vessel diameters
- With radius of curvature less than 2 cm
- If the catheter, the guide wire or the introducer sheath are damaged, kinked or presenting unsolved resistance
Always Consider the Coagulation

- **Heparin!** ACT must be >250 sec
- If not possible to measure ACT, we recommend a **bolus of 100IU/Kg** of heparin every 45 minutes.
- Inject **1,000IU** of Heparin from the IS to soften the thrombus and wait 1-2 minutes (no systemic effect)

If a proper Anticoagulation is not achieved...

- The helix may be blocked
- Guidewire could be stuck in the catheter
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Infusion Mix

This Mix will be aspirated by Aspirex and will not go systemic

250ml Saline + 250ml Contrast + 5,000u Heparin

Put the Mix in a pressure bag 120mmHg and connect it to the side-port of the IS
Infusion Mix

1. Introducer must be 1F bigger than the Aspirex

2. Adjust the flow. Fast drops (just before continuous line) are OK!
   Enough to avoid the collapse of the vein during the aspiration

3. Start the Infusion until visualization of the vein

4. Start the aspiration

5. Stop the flow when the motor is off
Benefits of the Infusion Mix

- During the procedure get real-time information about ....
  - Status of the vein
  - The vessel wall behaviour
  - The thrombus status
  - Efficiency of the aspiration
  - The patency of the vessel

The contrast has no systemic effect, because it will be permanently aspirated by the Aspirex®S
Key Concepts

Flow
Guide Wire
Correct Movement
Motor
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ASPIREX®s
Effective debulking in acute DVT

Keep in Mind!
• The helix is rotating at 40,000 – 60,000 RPM
• Outside the patient, the catheter must be held as straight as possible
• Run the motor at the same level of the Introducer

Revolution Speed
• Control the speed on the machine. The green LEDs should never go out completely.
• An acoustic alarm warns the operator if this happens

If green LEDs go out
• Stop the Motor!
• Remove the catheter from the patient
• Flush it with saline + heparin

MOTOR
If the Vein is collapsing on the Aspirex®S head, it means that the flow is not enough.

- Pull back the catheter and wait for the vein to fill up again
- Stop the Motor and wait for the vein to fill up again
Control the color of the blood passing in the tube of the fluid bag. Is an indicator of the material aspirated.

- Too dark-red Material
  ⇒ Increase the Infusion flow

Risk of catheter occlusion!!
FLOW- Tips?

Control the fluid bag!

- If too full, the aspiration power could be compromised!
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Karina Dos Santos Sousa 3114398 (30 y, 30 y)
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