Nightmares in the cathlab – My worst case and how I solved it

Koen Deloose, MD
Head Vascular Surgery
Sint Blasius Hospital
Dendermonde, Belgium
Disclosure slide

Speaker name: Koen Deloose, MD

☐ I have the following potential conflicts of interest to report:

☒ Consulting: Medtronic, Spectranetics, Biotronik, Abbott, Bard
   iVascular, Bentley, Cook, GE Healthcare, Cardionovum, Contego Medical, B Braun.

☐ Employment in industry

☐ Stockholder of a healthcare company

☐ Owner of a healthcare company

☐ Other(s)

☐ I do not have any potential conflict of interest
Nightmares in the cathlab – My worst case and how did I solve it ??? solved it NO
Clinical Data, male patient 76yr

**Medical History:**

**Risk factors:**
smoker, hypercholesterolemia
Recent diagnosis pulmonary cancer, with chemotherapy

**Present state:**
Subacute left leg rest pain since 10 days (Rutherford Becker 4) without motoric or sensory loss

**Duplex Ultrasound:** normal triphasic signal both CFA – Occlusion of the left SFA – bypass – reinjection ATP
Preoperative angiography

- Right CFA access 4F
- Cross over procedure
  UF (Cordis) + 0.035”-260cm stiff, straight glidewire (Terumo)

Very smooth passage
Decision to 24H thrombolysis

Fixation thrombolysis

Unifuse catheter 4F - 90cm - 20cm sideholes

Angiodynamics

Urokinase (1500U/kg/h)
Result 24 hours post thrombolysis

- Right CFA access 6F
- Destination sheath 6F-45cm (Terumo)
- Straight 0.035” -260cm GW (Terumo)
- CXI 4F-150cm (Cook)
Result post Rotarex thrombectomy

- 0.018”-300cm Advantage GW (Terumo)
- 6F Rotarex (Straub Medical)
Result post Rotarex thrombectomy
Result post Rotarex thrombectomy

MECHANICAL DISRUPTION

Metacross balloon OTW (Terumo); 5-150mm; 135cm; 5F

Tercross balloon OTW (Terumo); 3.0-200mm; 148cm; 4F
Eliminate Thrombus aspiration

Eliminate thrombus aspiration catheter (Terumo) (6-7F)

The stiffening stylet and fully braided shaft construction provides improved pushability and Kink resistance and ensures optimal crossability.

The large extraction lumen and rounded, short tip design provides optimal aspiration.
Result post Eliminate aspiration

Slow flow to the ankle...

Trash foot???
Loosing my patience...
Final result after thrombectomy

- Acceptable flow through SFA, popliteal bypass and ATP
- Heparine 25000U/24h + ASA + Clopidogrel
- Difficult recovery post surgery
- Immediate capillary refill – no ATP pulse – powerful biphasic signal on doppler
Safe and efficient closure...!

**Femoseal**

**Vascular Closure Device**

**THE FEMOSEAL® DESIGN**

The Femoseal® Vascular Closure Device uses 3 bioabsorbable components to actively seal the arteriotomy:

- **TWO BIOABSORBABLE POLYMER DISCS:**
  - An inner disc that is deployed into the artery, and
  - An outer locking disc deployed on the outer wall of the artery.
- **SUTURE**

Hemostasis is achieved by sealing the arteriotomy between the two discs, which are held together by bioabsorbable sutures complete with friction lock.

**FAST, EFFECTIVE, EASY TO USE**

- Effective and instant hemostasis with an easy-to-use deployment system.
- Significantly lower major bleeding frequency than the Abbott StarClose® vascular closure device (Femoseal bleeding frequency 10.09% lower than StarClose (p=0.03)).

**FULLY BIOABSORBABLE**

- All components of Femoseal™ vascular closure device are fully bioabsorbable; two fully bioabsorbable polymer discs held together by a bioabsorbable suture.
- Femoseal has re-late indications at the same puncture site after 90 days. If re-puncture of the same femoral artery becomes necessary within 90 days, re-puncture should be made at least 1 cm proximal to the previous Femoseal™

**RAPID HEMOSTASIS AND EARLY Ambulation**

- Designed to achieve effective and instant hemostasis, sealing femoral artery puncture following catheterization procedures promotes rapid ambulation with low vascular complication rate.
- The clinical evaluation shows that the Femoseal™ median Time To Hemostasis (TTTH) is 1 minute.

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iD3 Medical – 2018 | 15
...the day after....

During the night... a lot of pain in left foot

Deterioration of temperature after 8 hours
Take home messages

• You need a wide armamentarium of thrombus fighters: thrombolysis, thrombectomy devices, thrombus aspiration (like Eliminate), balloons (like Tercross & Metacross), stents, surgical skills

• Caveat oncological patients: paraneoplastic & thrombophilic phenomena

• Despite all technological evolutions, high tech devices, increased skills... *there are still limits on our possibilities*...
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