WELCOME *To the*

2026 SYMPOSIUM

Declotting AV Grafts: How I Do It

OLD Vascular Surgeon

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VASCULAR ACCESS SOCIETY OF THE AMERICAS

Access Excellence.

Disclosures

PI for Laminate Medical

PI for Xeltis

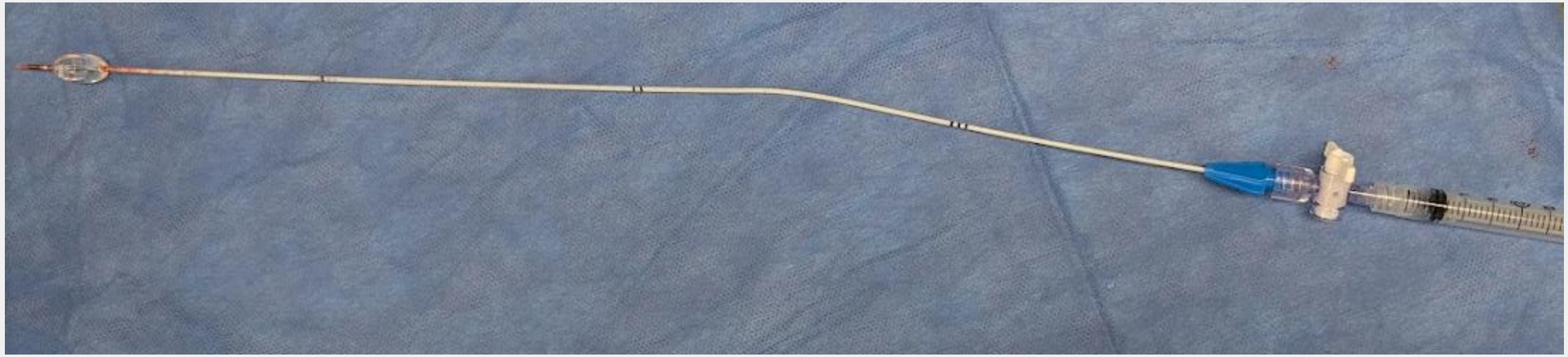
Surgical Experience Before 2014

PTFE Insertions	213
PTFE Declots	1962
PTFE Revisions	323
AVF Creations	2453
AVF Declots	562
AVF Transpositions	1096
AVF Revisions	664
TOTAL	7373

Indications for Surgical Declot

- Aneurysm with large clot burden
- Failure to transverse area of stenosis or occlusion
- Interventional services not available
- Need to replace infected section of graft
- Severe allergies to TPA or contrast
- Resistant stenosis

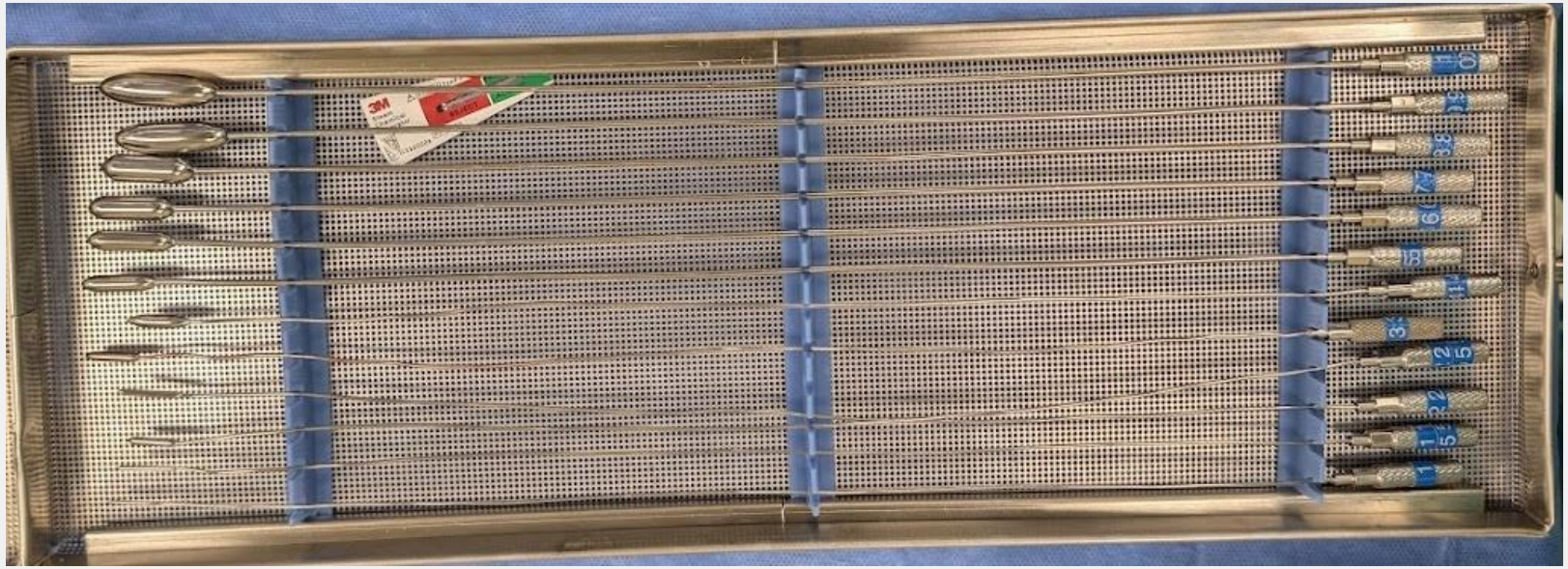
Essential Tools





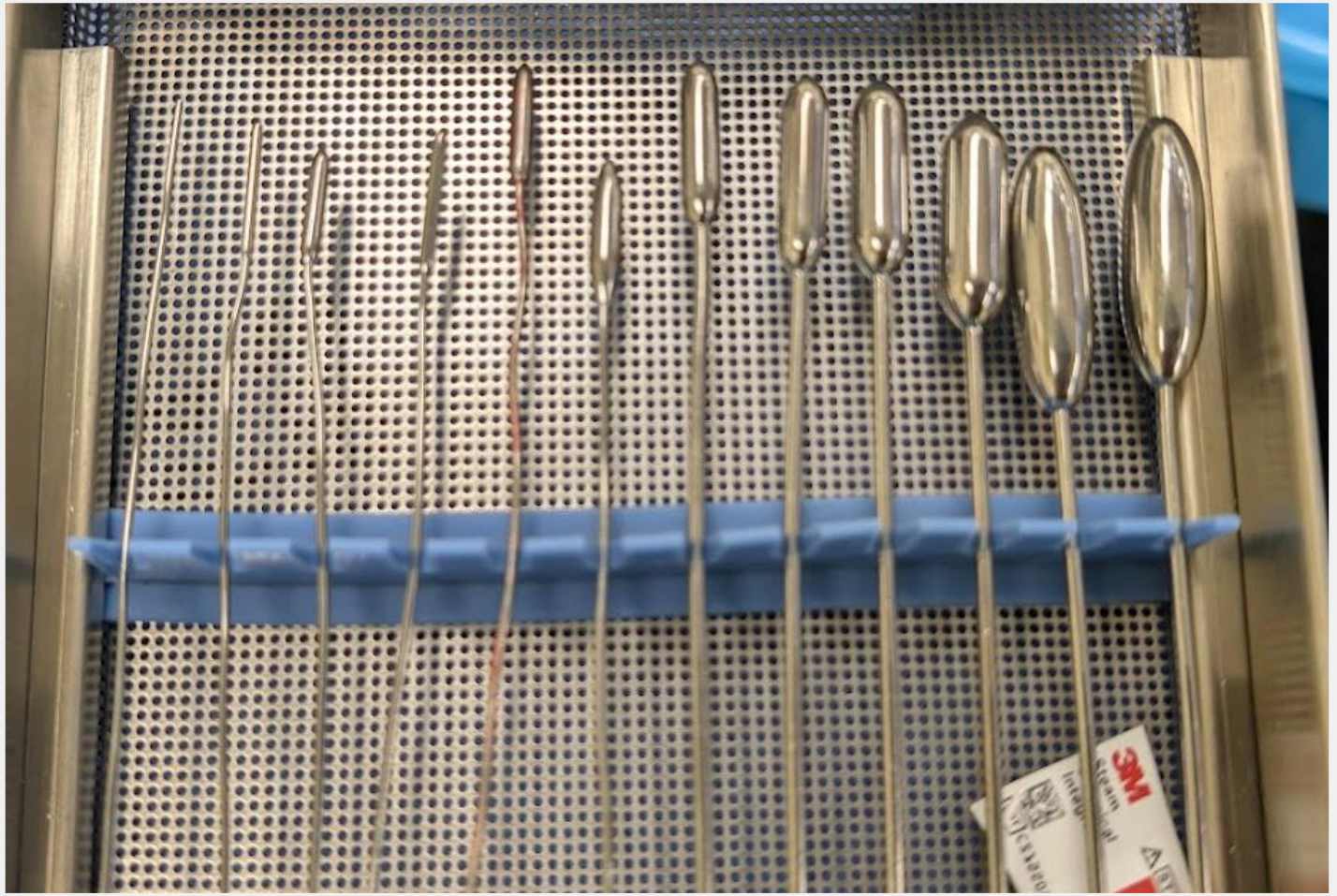


Other Tools









Surgical Approach

- Preop
  - Oral Valium
  - IM Demerol
  - IV antibiotics
  - Hibaclens scrub
- Intraop
  - Chloraprep scrub
  - 0.25% Marcaine
  - 1% Lidocaine
  - Incision very near the venous anastomosis

Establish Venous Outflow

- Remove venous outflow clot with Fogarty
- Resistance on withdrawal of Fogarty = outflow stenosis
  - Commonly at the venous anastomosis
- Correct outflow stenosis
  - Rigid dilators
    - Pass 2 smaller dilators separately and withdraw together
  - Balloon angioplasty – only below the axillary crease
    - Inflate till pressure gage is steady
    - Ultrasound to verify waist effacement

Establish Venous Outflow

- Visualize the anastomosis from the inside of graft
  - Remove intimal hyperplasia
  - Patch the outflow vein and anastomosis
- Graft extension to normal outflow vein
- Flush outflow with heparinized saline

Establish Arterial Inflow



- Remove arterial clot with Fogarty catheter
  - MUST recover the arterial plug
  - May need to make incision on arterial end
- Assess narrowing in the cannulation segment
  - Rigid dilators to correct narrowing
  - Endarterectomy instruments to remove intimal hyperplasia
- Flush graft with heparinized saline

Closing

- Systemic Heparin 3,000 units
- Close graft incision with running 6-0 Prolene – do not tie
- Allow antegrade and retrograde flow
- Snug sutures
  - Listen with stethoscope in sterile glove
  - Pass Fogarty catheter or dilate as necessary
  - Tie sutures

Evaluate

- Too strong of a pulse or a weak bruit
  - Repeat methods to dilate or remove intimal hyperplasia
  - Additional heparin
  - Refer for interventional evaluation while still open

Conclusion

- Open surgical thrombectomy
  - Percutaneous options not available
  - Severe contrast or thrombolytic allergy
  - Need for outflow revision
  - Need for revision of cannulation segment
  - Need for new arterial anastomosis for inflow problems