DVA tips/tricks and lessons learned

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Disclosures

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Challenges of percutaneous DVA

Successful DVA procedure

Management Post DVA

Patient selection

Post DVA Clinical and Duplex FU

Case preparation

Focalisation of blood flow

Procedure

Venous pressurisation
Lessons Learned: Venous Mapping

- Rule out DVT in target veins (PTV and LPV)
- Visualize LPV segment(s) for access
- Preselect alternative access sites

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Lessons Learned: Procedure

• Keep the foot warm during the procedure when not working directly in that area
  • Recommendations:
    • Warm saline
    • Increase room temp
    • Bair hugger

• Pedal Access
  • U/S mapping
  • Pneumatic tourniquets
  • Largest diameter as distal as possible
  • Vasodilators

• Preserving existing arterial flow through collaterals is important, must avoid blocking or stealing
Lessons Learned: Post DVA FU

• FU during the first 4-6 weeks (best every week) to monitor development and being ready to react

• FU should include Volume flow measurements

• Close wound surveillance
Lessons Learned: Post Procedure Duplex

Post DVA Dx Surveillance and Volume Flow rates

- Ideal flow rate in post DVA pedal loop is 100-300 ml/min
- Look for Flow changes/ Flow distribution changes

Ultrasound indications for intervention

- Marked increase or decrease in flow volume
- Low or stagnant flow in distal lateral plantar vein
- Stenotic areas in inflow and/or outflow
Lessons Learned: Post DVA Flow management

To detect:

• Stagnant Flow in Lateral Plantar vein

• Non-nutritive Flow routes

Stenosis LPV at 3 months
Lessons Learned: Post DVA Flow management

To detect:

• Stagnant Flow in Lateral Plantar vein

• Non-nutritive Flow routes

Courtesy of Dr. Roberto Ferraresi
Lessons Learned: Post DVA Flow

Common embolisation sites for the focalization of blood flow

In red: Submalleolar (7,4) and calcaneal perforator veins (10)

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Lessons Learned: Post DVA Clinical FU

Clinical indication for intervention post DVA

- Pain
- Infection
- Worsening Wounds/Changes in color
- Have a low threshold for intervention
- Time is tissue!
Lessons Learned: Multi Disciplinary Team

Communication between interventionalist and podiatry

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<th>Time Post-DVA</th>
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<tr>
<td>1-2 DAYS</td>
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<td>• Swelling is common</td>
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<td>• Assess any non-nutritive flow or arterial steal</td>
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<td>Do not attempt to close wound or use skin graft until evidence of granulation tissue is present</td>
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