2018 MID-ATLANTIC
CONFERENCE

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VASCULAR THERAPIES

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Venous Claudication: Diagnosis and Treatment Options

Background

- “Venous claudication” → pain in the lower or upper extremity secondary to venous hypertension
- Often, patients with post-thrombotic syndrome
- Iliocaval occlusion or obstruction

Clinical Presentation

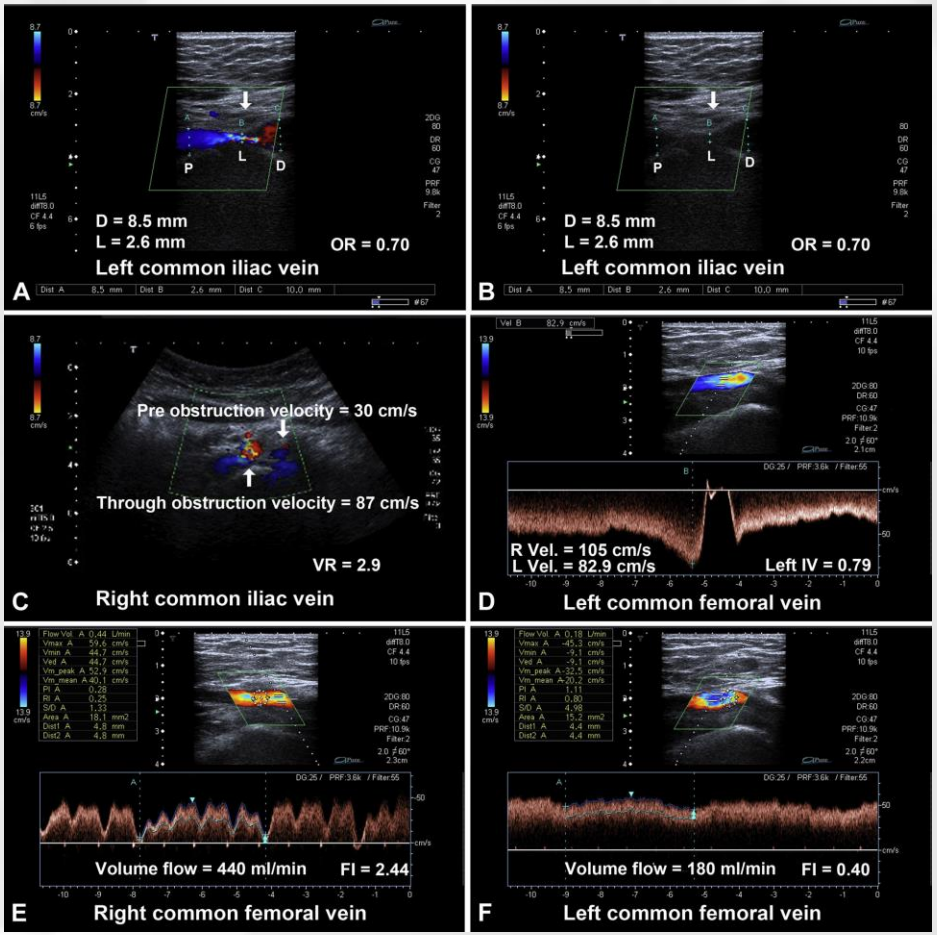
- Pain characteristics
  - Onset of pain when erect
  - Pain relief with
    - Leg elevation
    - Use of compression stockings
  - Often associated with skin damage (ulcers, hyperpigmentation)

Differential Diagnosis

- Arterial claudication
  - Buttock, thigh, calf pain while walking
  - Relieved by resting the extremity after exercise
  - Decreased (exercise) ankle-brachial index
- Neurogenic claudication
  - Impingement or inflammation of the nerves
  - Pain relieved by a change in position or flexion of the waist or resting

Workup

- Duplex ultrasound
  - Initial diagnosis
    - Real-time, reproducible, easy-to-obtain, radiation-free
    - Detects flow, reflux and obstruction

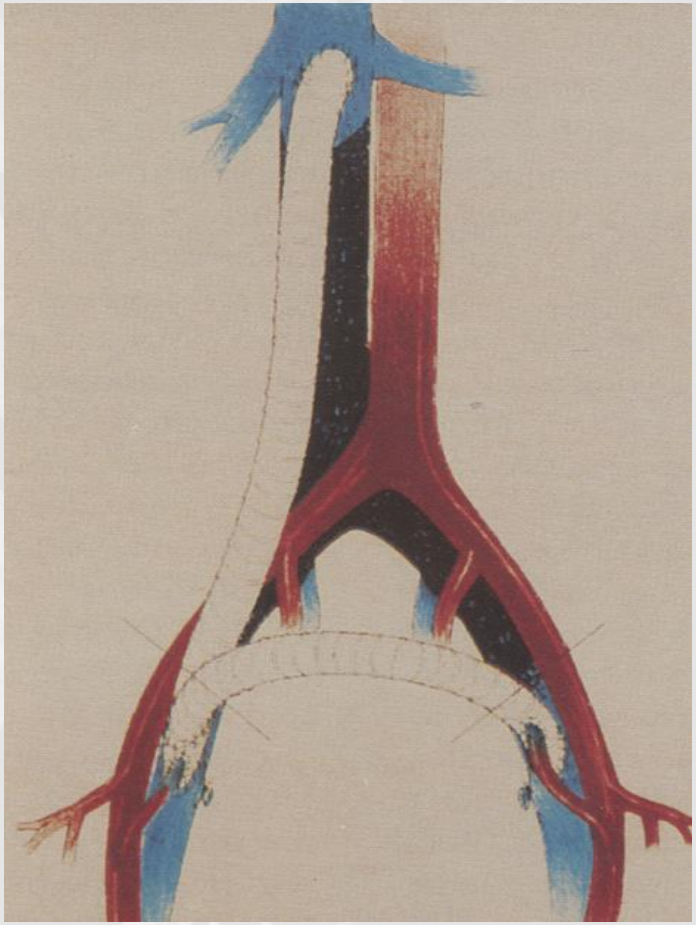


Workup

- Computer tomography venography
  - Secondary diagnostic tool
    - Delineate anatomy, surrounding tissues
    - Issues: radiation, contrast media, expensive
- Magnetic resonance venography
  - Secondary diagnostic tool
    - Delineates anatomy, flow, surrounding tissues (no radiation)
    - Issues: Complex protocols, expensive, claustrophobia
- Catheter-based venography (rads, contrast, invasive)

Treatment

- Open procedure
  - Significant morbidity, decent patency rates
    - Not first line of treatment
    - Very invasive
    - Reserved for patients with no endovascular options
    - Suitable anatomy

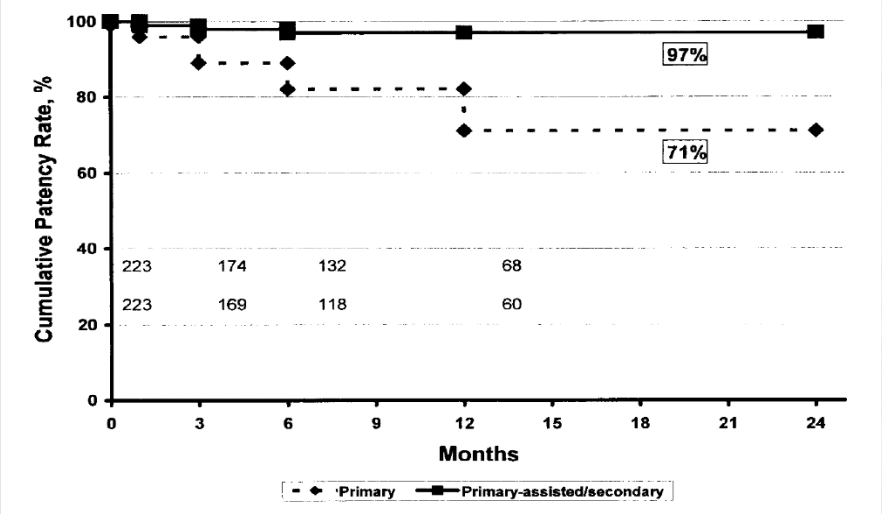


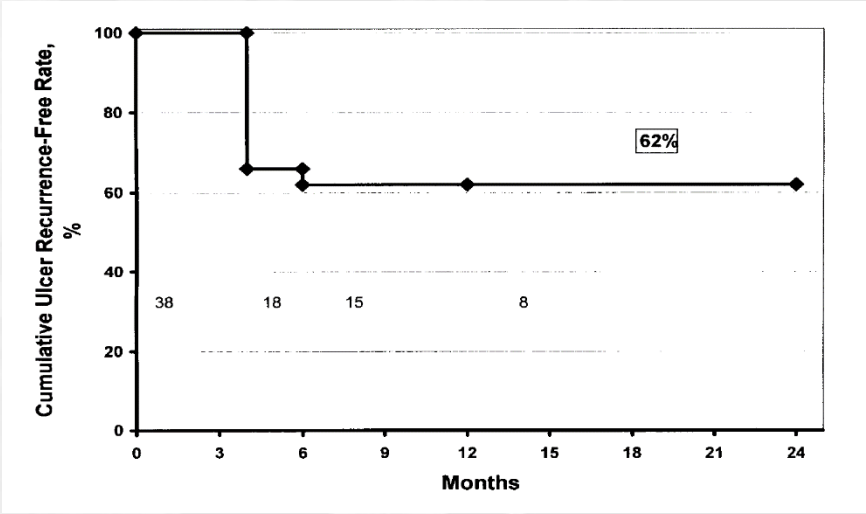
Treatment

- Endovascular therapy
  - First line of treatment
  - Femoral approach
  - Catheters, stents
  - Good results
  - Expeditious recovery

The clinical impact of iliac venous stents in the management of chronic venous insufficiency

Seshadri Raju, MD, Sam Owen, Jr, BS, and Peter Neglen, MD, *Jackson, Miss* (J Vasc Surg 2002;35:8-15.)

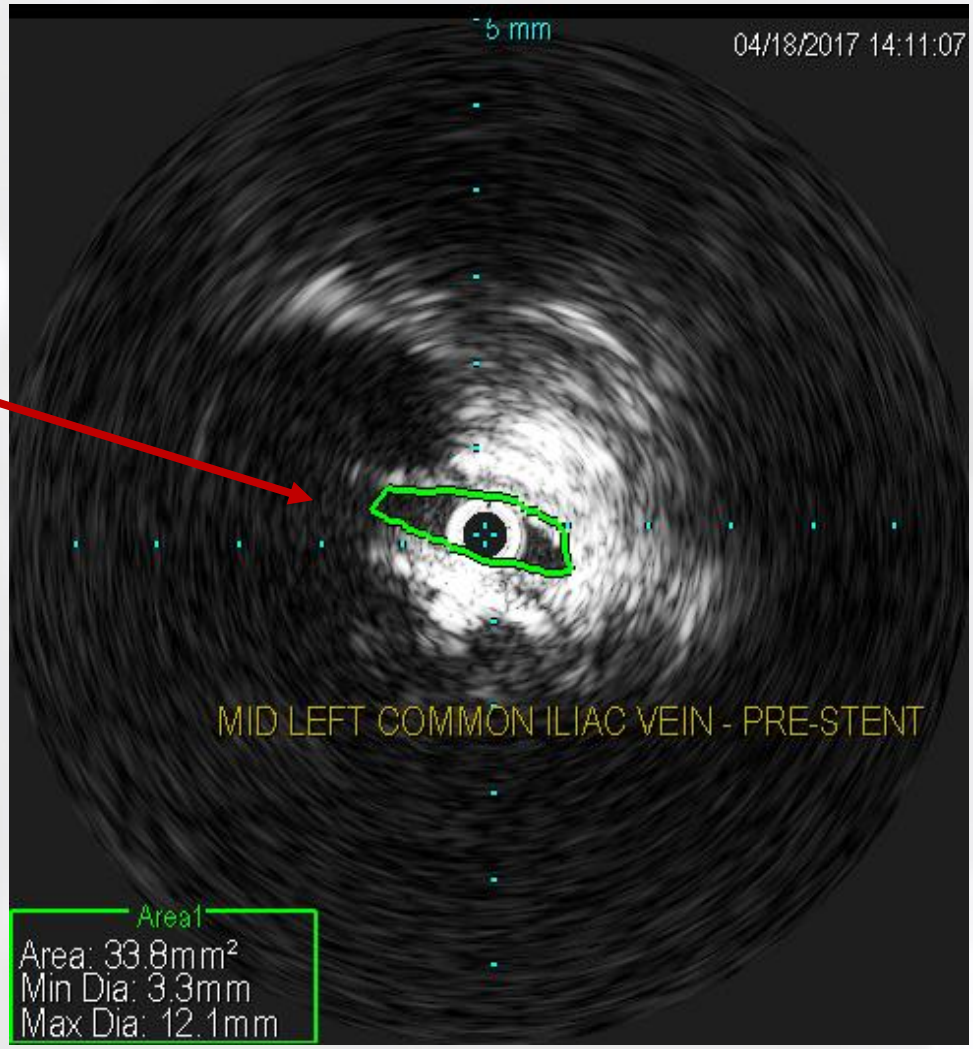




- The pain level → VAS from 0 to 10 declined from a median level of 4 to 0 after stent placement (P < .001)
- Limbs completely free of pain increased from 17% before stenting to 71% after stent placement (P < .001)

Case Presentation

- 32 year-old female presents with left lower extremity edema and pain while standing up, which only improves with leg elevation. It is not related to ambulation. The patient had three successful gestations (two boys, one girl). No hx of DVT.
  - Medications: etinilestradiol (ACO)
  - Workup: duplex venous lower extremity showed no deep vein thrombosis or superficial venous reflux. No flow phasicity with respiration on common femoral vein


5 mm
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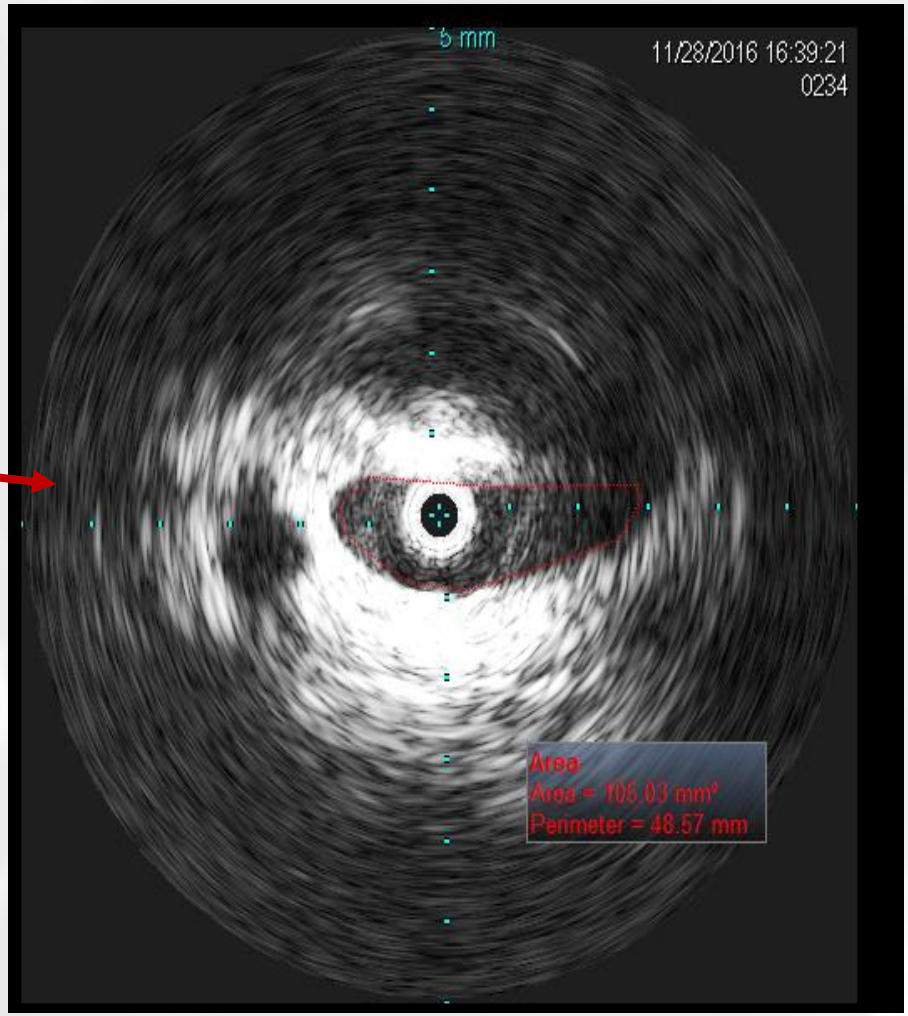
MID LEFT COMMON ILIAC VEIN - PRE-STENT
Area1
Area: 33.8mm²
Min Dia: 3.3mm
Max Dia: 12.1mm


6 mm
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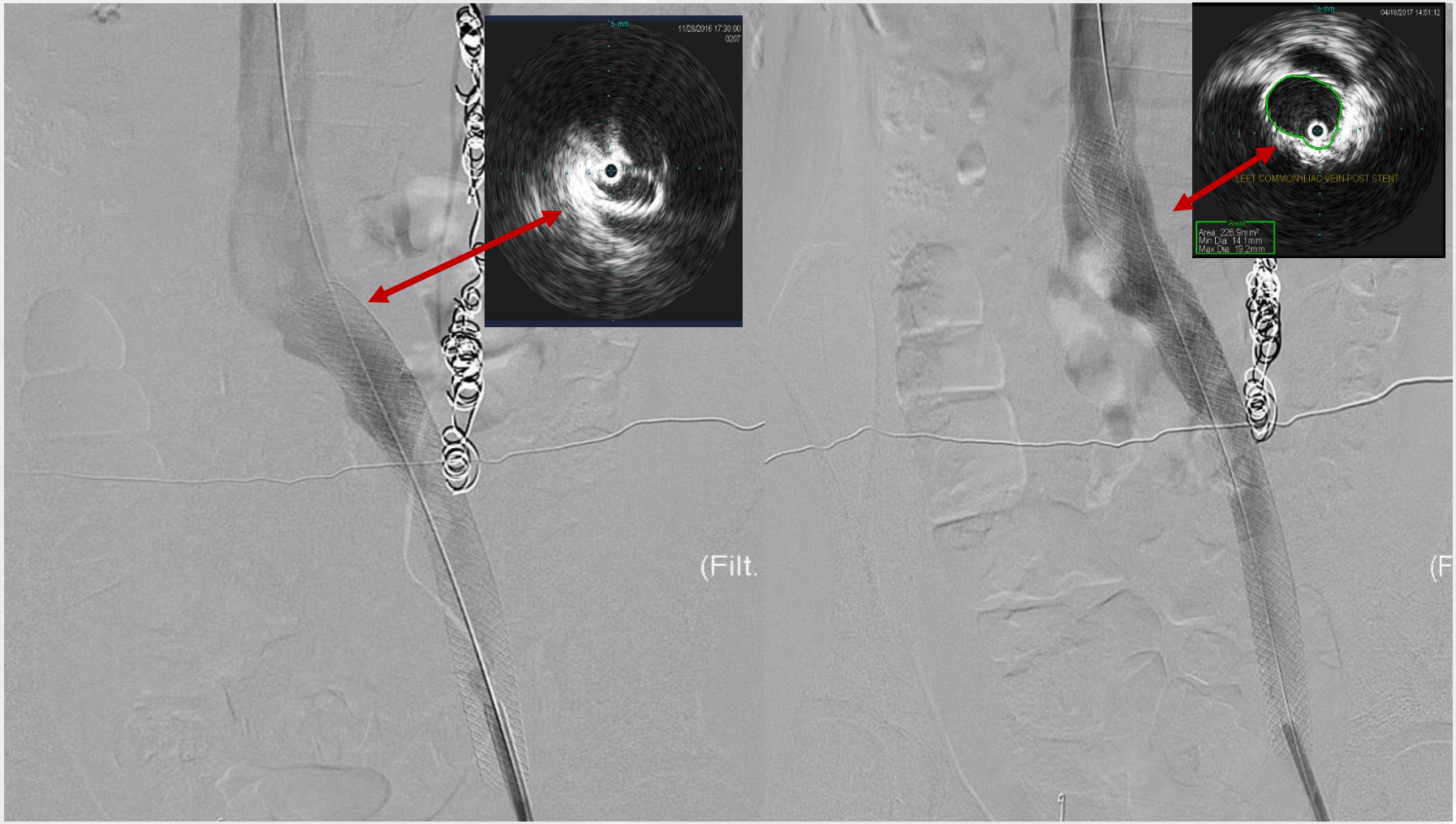
Area
Area = 106.03 mm²
Perimeter = 48.57 mm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04/18/2017 14:51:12
LEFT COMMON ILIAC VEIN-POST STENT
Area 226.9mm²
Min Dia 14.1mm
Max Dia 19.2mm
(Filt.

Conclusion

- Leg pain can be secondary to venous claudication
- Patients who have had DVT or those with venous compression without DVT → more prone to develop it
- Treatment of iliocaval obstruction
  - Relieve symptoms, assist in preventing ulcer recurrence
  - Improves patients' quality of life

Thank you

The Vein Center of Virginia