Post-Thrombotic Deep Venous Obstruction:
Proper Patient Selection and Utilization of Imaging

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Disclosures

• Speaker's bureau/consulting: Cook Medical, Boston Scientific, Becton Dickinson/CR Bard, Medtronic, Penumbra, Tactile Medical, Philips

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How should we approach a patient with chronic post-thrombotic obstruction?

• Thorough history and physical
  • Thrombotic history
  • Anticoagulation (and complications if present) history
  • What are the main symptoms that concern the patient?

• Objective metrics (scales)

• Imaging
Assessing symptoms

• Presentation – What bothers the patient the most?
  • Pain
    • Nature of pain “Bursting” sensation
    • Degree of disability preventing movement
    • Assessment of narcotic use
  • Edema
    • Assess features and extent
      • Calf, thigh, or both?
      • Lymphedema?
    • Ability to tolerate compression
  • Venous stasis ulcers
    • Frequency, size
    • Infection/wound care history
Assessing PTS/obstructive venous disease – scales

• CEAP
  • Usually at least C3 disease (edema)

• Villalta scale
  • At least 10 or higher

• VCSS
  • Generally 8 or higher
  • Greater discrimination with more severe disease
Use imaging to assess the patient, plan your procedure

• Iliac duplex/CT venography to evaluate extent/causative factors
  • Evaluate extent of disease, is there a therapeutic target?
  • Identify an special tools needed (filter retrieval, sharp recanalization)

• LE duplex/insufficiency to evaluate inflow and reflux
  • Critical to evaluate profunda and CFV
  • Assess for superficial disease contribution to patient’s symptoms

• Determine which intervention(s) needed, access site(s) in a deep intervention
Correlate images to symptoms

• Intervention should be clinically-driven
• Hard to improve a patient that is minimally symptomatic
• DO NOT use imaging to justify the intervention!
Determine if an intervention will help, and a patient’s ability to comply

• Which procedure, if any, will address the patients symptoms
  • Ulcer/varicosities most bothersome → superficial treatment first?
  • Pain/venous claudication → deep treatment first

• Assess a patients ability/willingness to comply
  • Anticoagulation and compression
  • Follow-up is **critical**

• Set appropriate **expectations**
  • Making a patient asymptomatic usually not possible
    • Residual edema
    • Skin changes
A cautionary tale

• 69-year-old male with history of LLE DVT → thrombolysis, stent placement 10 years prior
• Remained on coumadin, no follow-up
• 1 year after treatment → progressive pain and swelling to thigh
• Cannot walk beyond 1 block
Conclusion

• A successful procedure and outcome is predicated on good decision-making
  • Proper patient assessment by exam and application of scales
  • Procedure selection by history, exam, imaging and patient goals
• Involve the patient in the process
  • Set appropriate expectations
  • Assess barriers to compliance, advocate that patients are equal participants in their care