What can be done for PTS beyond anticoagulation/compression for PTS? 

Post thrombotic syndrome (PTS).  
- Defined as Leg pain, swelling after 6 mo. 
- Major source of morbidity, $$, decreased quality of life, lost time at work. 
- Std Rx = “…anticoagulation, compression.” “… Sorry!” 
- 5-8% develop venous ulcers

Case Example:
- 57 yo Female DVT X 3 over 4 years despite anticoagulation. 
- Post thrombotic syndrome (PTS).  
  - Leg pain, swelling after 6 mo. 
  - Venous ulcers @ 24 mo 
  - Being Rx with Lovenox/compression 
  - But miserable “Please Help Me!!!” 
- What more can we do? 
Why is her PTS so bad?!

What does Duplex Show? 

IMPRESSION: “No occlusions or acute DVT.” 

- Enuf info? No! Anything else? Yes: 
  - “fem-pop veins only partially compressible.” 
  - Significance = residual clot = Obstruction(?)  
  - no resp. phasicity = prox. Obstruction 
  - “multiple channels” = synechia =Obstructive(?) 
  - “Reflux…fem. & popl. ”
- So, has Obstruction & Reflux  Significance?

“Worst Post Thrombotic Syndrome is when BOTH obstruction, and reflux are present.”
Eugene Strandness, MD
Common post-DVT Finding

1. Partially compressible.
2. Fenestrated lumen.

Why? *incomplete lysis/recanalization after endogenous lysis + anticoagulation.*

Fenestrations and “wall thickening” can be non-occlusive Obstructions

Politeal v. patent, fenestrated, & augments, *but no phasic flow.* Therefore, proximal obstruction

How to Treat?

- Clear/reduce obstruction
- Best method is yet to be determined
- Cutting balloon has theoretical advantages over both stent & POBA
- Usually lots of sites, difficult to quickly Rx all from single access.
- Popliteal seems to be most important
- Likely to have big reduction in PTS
- More Rx prn
08/03/2011 Contralateral fem access, retrograde cath. & intervention (CBA)

08/11/2011 (8 days later) Popliteal Access

Followup
- Much improved, ulcer healed, but...
- Residual foot/ankle pain & swelling
- No further improvement after 6 mo.
- Presume residual popliteal stenoses distal to the proximal popliteal access site.
- Prior Rx have cleared most proximal lesions so retrograde catheterization should now be able to reach the popliteal.


Obstructive findings gone!
(3 mo post popliteal vein CBA)

Vein compresses. Return of phasic flow.

2/16/12

Femoral v also improved 3 mo post final Rx

1. SFV compressible p CBA
2. reflux unchanged
1. Synechiae in fem. veins.
2. Phasic flow in 1, +/- in 2nd.
Therefore, obstruction/PTS

Happy! Pain/swelling gone.
No recurrence of DVT!!!!

Despite decreased lovenox.

Results

- 10 cases
- 8 improved.
  - Residual lesions in the non-responders
  - Insurance prevented them from completing Rx.
- Duplex improved in all.
- Most veins became compressible & phasicity returned
- Cutting balloon \( \rightarrow \) smoother, larger lumen than POBA
- More durable, because..."cut the scar??!!"
- +/- cryoplasty \( \rightarrow \) even smoother, larger. Hmmm??!
- Difficult to clear all of the lesions @ in a single session.
- Not a single lesion, and can’t traverse them all.

Questions, please.
Thank you.