What can be done for PTS?
- Std Rx = anticoagulation, compression.
- Patient says “Nothing more, Dr.?”
- Doctor says “Sorry!”
- Reality = stents efficacious for iliac lesions, but what for fem-pop? Early experience with Cutting Balloon is encouraging.

Case Example:
- 57 yo Female - 3 DVT in 4 years despite anticoagulation.
  - Factor V Leidin (heterozygous)
  - Leg pain, swelling at 6 mo.
  - Venous ulcers @ 24 mo
- Being Rx with Lovenox/compression
- Had mild iliac stenosis Rx with PTA
- But still miserable “Please Help Me!!!”
- What more can we do?

Fem-Pop Duplex
- Reflux in distal femoral & popliteal vv
- Obstructions in distal femoral & popliteal vv
  - Stenoses, wall thickening, abnormal flow
- Details in next presentation

“Worst Post Thrombotic Syndrome is when BOTH obstruction, and reflux are present.”

Eugene Strandness, MD
Fenestrations and “wall thickening” can be non-occlusive Obstructions.

How to Treat?

- **Stents?**
  - Probably occlude if hypercoagulable
  - Especially in fem-pop vv
- **POBA?** (personal experience)
  - Risk of rupture if eccentric or strictured
  - Generalization = poor long term response
- **Thrombolyis?**
  - Too late!?!?!?

How to Treat?

- **Clear/reduce obstruction**
- **Best method is yet to be determined**
- Cutting balloon has theoretical advantages over both stent & POBA
- No metal left behind
- Very effective in strictured veins & @ low pressure & dissection unlikely.
- Larger balloon will then easily dilate.

How to Treat?

- **Usually multiple sites**
- **Difficult to Rx all from single access or during 1 session.**
- Difficult to identify best vein when injecting against flow, & in presence of collaterals (maze).

08/03/2011  Contralateral fem access, retrograde cath. & intervention (CBA)

Retrograde access → able to traverse some SFV occlusions & fenestrations.
Unable to traverse distal fenestrations.
Post 8 mm CBA of SFV:
1. Venous ulcer pain gone,
2. Pain/swelling less.

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

Post 6 mm CBA

Pre

11/20/2015
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.

Results

- 10 cases
  - 8 markedly improved.
    - Residual lesions in the 2 poor-responders
    - Insurance prevented them from completing Rx.
    - 1/8 mild clinical deterioration @ 1 yr. Limited repeat Rx
  - Duplex improved in all.
  - Most veins became compressible & phasicity returned
  - Cutting balloon → smoother, larger lumen than POBA
  - More durable, because...“cut the scar?!”?
  - ? add cryoplasty → even smoother, larger. 11mm?!!

Conclusion

1. Encouraging results for a disabling problem
   a. major impact on Quality of Life.
   b. major cost (lost work, medical care).
2. Indications:  a work in progress.
   a. POBA results disappointing in veins. Stents better.
   b. Avoid stents in fem-pop veins.
   c. CBA is different mechanism.

   i. may be the best method for now.
Thank you.

Questions, please.