Transvenous treatment of AVMs: A major advance in safety and efficacy

- Used in specific types of AVMs with dominant or single outflow vein anatomy
- Direct puncture or transvenous catheterization of venous sac(s) guided by arterial opacification
- Coil packing of sac with alcohol ablation

AVM venous approach

- If lesion has favorable anatomy; go straight to venous coiling
- Very often curative in single step
- Northwestern Experience: 65 cases of peripheral AVM transvenous treatment
  - Coils only: 56
  - Coils and additional ethanol: 9
53 year old man with leg swelling

56 year old man with new onset leg swelling
Uterine “AVM” in a 47 year old

56 year old man with symptomatic pelvic AVM; history of prostate cancer and post op DVT
56 year old with previous iliofemoral DVT. Recent onset of RLE swelling and pain

Pelvic AVMs
- Very similar in location and appearance
- Northwestern: 13 cases, all Type IIIa
- Some with +/- history of DVT
- Could these be acquired and post-DVT?
  - I believe that the mechanism is inflammatory with vein wall inflammation and hypervascularity leading (in some) to AVMs
  - Treatment: Venous coiling and/or stent

Some AVMs Are Acquired—Post DVT & All Uterine AVMs
- At least 10 cases at Northwestern have been seen
  - 5 with clear evidence of prior DVT
    - Mechanism related to inflammatory neovascularity and arterial proximity
  - 5 strongly suggested by age or location
    - Pelvic AVMs in 60-70 year olds
    - Superficial elbow "AVM" in a 55 year old

Thank you!