Am I In The Nidus?

- The critical issue when treating AVMs
- “Cure vs catastrophe”
- Very difficult and frustrating
- Diligence, persistence necessary

Do not confuse the path with the target

- 56 year old woman with multifocal AVM including previously venous outflow coiling.
- Residual soft tissue AVM
- WTF??

So Where Is The Nidus??

- Look carefully at flow
- When do you first see the vein??
  - Work backward from the first vein
- Examine everything including bone
- DO NOT CONFUSE THE PATH WITH THE NIDUS!
Finding the nidus—the central task

- First visualization of the vein
- Work backward from that point
- Lots of views!
- More frames/sec (6+)
- Multiple injection sites including non-dominant vessels—collaterals may often point to nidus

Treatment options

- I (AVF)—Coils/plugs
- IIA (classic AVM nidus)-ETOH cath or direct
- IIB (classic nidus with single outflow vein) → ETOH cath or direct with coil packing of vein
- IIIa (aneurysmal vein single outflow) → curative coil packing of vein
- IIIb (aneurysmal vein multiple outflow) → Coil packing of vein
- IV (diffuse infiltrating) 50/50 ETOH/contrast

Finding The Nidus

- Nidus form is dependent on Yakes type
- Once in nidus do sequential angio to confirm proper position
- Intranidal injection should only fill outflow veins!
Finding the nidus: Yakes Type IV

- Diffuse infiltrating lesions have considerably more complexity in nidus identification.
- Direct puncture is always the best method.
- Venous visualization remains paramount

29 year old with diffuse multifocal foot AVMs

Direct puncture

Combo sequential angio to check

Multiple in-flow arteries into the aneurysmal vein wall (the vein wall is the “nidus”) with single out-flow vein. *Ethanol and/or coil packing in the vein sac can be curative.*
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- Very difficult AND frustrating at times
- Diligence, persistence necessary