Reconstructive Surgical Issues with Complex Vascular Malformations

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Case 1: IK

- 5 yo female from Rwanda presented with extensive LM infiltration of the subcutaneous fat of the R abdomen, buttock, pelvis, labia, thigh, and leg, and congenital deformity of the R foot
- Patient with associated skeletal and soft tissue overgrowth with accompanying adipose overgrowth
- Patient underwent multiple sclerotherapies

Symptoms are related to
- Size
- Weight
- Weeping
- Maceration
- Ulcers
- Occasional infection
- Can be serious problem as bacteria from systemic infection may seed channels within an LM

Surgery

- Most predictable way to control LMs
- Indications
  - Pain, recurrent infection, chronic ulceration
  - Functional problems specific to size, weight, and bulk of extensive lesions
- Local resections performed in stages
  - Plan dissection within a well-defined region
  - Avoid reoperation in a previously scarred region (thorough initial dissection)

- Thorough resection as possible is more important in LM resection
  - Bleeding and fibrosis on re-entry of previously dissected areas are unique and profound
  - Inflammation and angiogenesis of these healing wounds can be profound
  - Hypertrophic scars are common
  - Swelling may be difficult to control

Disclosure

- NONE
Case 2: JD

- 57 yo WM with AVM of the R shoulder, upper extremity including hand and fingers
- Patient reported a lump over his R elbow following a humerus fracture as a child. He complained of increased pain, swelling, and decreased ROM of the R arm.
- In 2007, he underwent an exploratory surgery and a biopsy of the mass revealed vascular malformation
Case 3: SF

- 22 yo WM with R forearm swelling at 14 yo. Area grew in size and caused pain. Patient was diagnosed with AVM.
- PMH: severe autism, bipolar d/o, thyroid cancer s/p thyroidectomy at 10 yo
- Patient underwent ethanol and coil embolizations (started in 2011)
  - One complication with ischemia of the digits—resolved with tPA and IV heparin
Case 4: CA

- 32 yo WM with L UE AVM
- Became symptomatic in 2003 with pain and prominent L FA vasculature
- Fractured L radius in 2004, s/p ORIF. Postop with increased L FA size and pain
- Diagnosed with AVM in 2004
- Started Ethanol embolization treatments in 2007
- Pt with high CO secondary to AVM (10L/min, CI 4.6, SVR 328, CVP 14 in 2005)

- Patient developed wound complications, including bleeding and infection
- Wound centers close to home do not feel comfortable taking care of him
- Patient at risk for bleeding with frequent dressing changes to remove eschar and provide moist wound environment