WHEN, AND WHAT TYPE OF SURGERY IS NEEDED IN TREATMENT OF VASCULAR MALFORMATIONS IN PROBLEMATIC ANATOMIES OF THE HEAD & NECK

Veith 2018
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Friday November 16, 2018
Session 95 High-Flow Malformations
9:55-10:03 AM

The Big Idea: paradigm shift
- Surgeons: defer early excision of VM
- Interventional Radiologists: think sclerosis vs just pre-surgical embolization
- Paradigm Shift: surgery can be limited to contouring and repositioning (nips and tucks) rather than bloody, deforming operations.

Anatomical Locations

| Anatomical Location | 2002-2016 |%
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<td>Total Patients</td>
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| Head & Neck         | 1,517     | 22.3 %
| Upper Extremity     | 1,044     |
| Lower Extremity     | 2,019     |
| Chest/Abdomen       | 1,310     |
| Pelvic/Buttock      | 909       |

Yakes Vascular Malformation Center, 2016

Problematic Anatomies
- **Life:** airway, AV shunting (cardiac), brain
- **Liberty:** speech, hearing, facial expression
- **Happiness:** vision, smell, taste, mastication, and esthetics.

Types of Surgery for Head and Neck Vascular Malformations
- Total excision
- Subtotal excision
- Contour correction (add/subtract)
- Repositioning (functional/esthetic)
- Secondary operations (tracheostomy)

Traditional Timing
- Early: Life threatening lesions and may combined with embolization.
- Middle: Resection of nidus and deformity within 24-48 hours of embolization
- Late: After ablation is completed and only “fibrofatty” tissue with little vascular malformation structure remains.
Thorough sclerosis of lesion (multiple treatments)
- Surgery only to reconstruct functional and esthetic form.
- Monitor recurrence of Vascular Malformation and repeat.

- Multiple episodes of oral hemorrhages
- Loose molars right mandible

Courtesy Dr. WF Yakes
Pre Sclerosis | Post Sclerosis

2/18/2015 | 6/10/2008

Stretching of ophthalmic nerve
Proptosis and Ectropion
No loss of vision

21 year old male
Courtesy Dr. WF Yakes

Lesion cleared over 7 years

No residual functional or esthetic deformity

2/18/2015

Retrobulbar Orbital Venous Malformation

- Stretching of ophthalmic nerve
- Proptosis and Ectropion
- No loss of vision

21 year old male

ETOH Ablation

- No loss of vision
- Mild residual lid retraction

ETOH ablation

Patient refused surgery to correct residual lid retraction
The surgical treatment of vascular malformation is undergoing a paradigm shift so that thorough sclerosis of the lesion is performed first so that only correction of any residual functional and esthetic defect is treated with surgery. Surgery is not for the excision of the vascular lesion itself. This will make the surgery more effective in achieving its functional and esthetic goals.

**Conclusion**