

Open Surgical and Endovascular Treatment of Superior Vena Cava Syndrome

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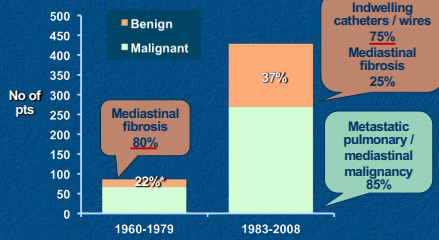


Disclosure

I have no relevant financial relationships to disclose



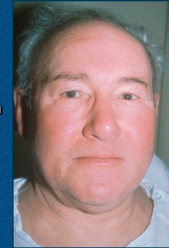
Incidence of SVC Syndrome



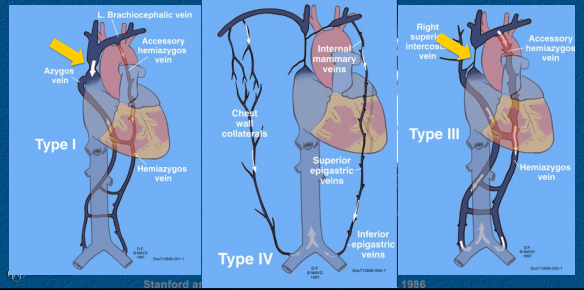
*Parish et al.: Mayo Clin Proc 56:407-13, 1981

SVC Syndrome

- Head / neck fullness / swelling
- Exertional dyspnea / orthopnea
- Headache / dizziness / blurred vision
- Upper extremity swelling
- Chest wall collaterals
- Cough / pleural effusion



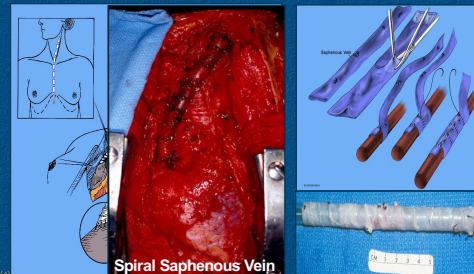
Venography



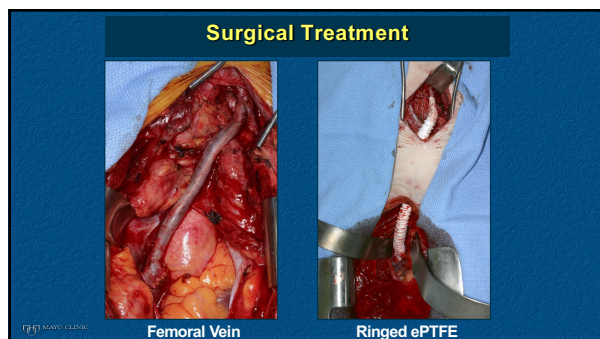
Stanford et al.

1986

Surgical Treatment



Doty DB: Ann Thorac Surg 22 (5):490-3, 1976



Endovascular Treatment: Technique

- Anesthesia:**
 - Local vs General
- Access:**
 - Right IJ/ brachial /basilic vein
 - Right CFV
- Sheaths:**
 - 6 F – 12F
- Angioplasty:**
 - Sequential PTA with 8-10mm HPB
- Stenting:**
 - Palmaz / Wallstent / Protegé / SMART

Endovascular Treatment

35 yr female with Central Venous Line related SVC obstruction. Failed endo attempts X 3 elsewhere

- R IJ access
- Stiff end Glide wire
- R CFV access
- Wire snare in R ax
- Extravasation
- 14 X 60 mm Protegé
- 13 X 50 mm Viabahn
- Pr grad 16 mm – 0 mm

Endovascular Treatment

80 yr female with lung Ca recurrence in mediastinum 11 yrs s/p VATS, R wedge and LN resection

Cardiovasc Intervent Radiol (2018) 41:710–717
<https://doi.org/10.1007/s12020-018-0004-2>

CLINICAL INVESTIGATION VENOUS INTERVENTIONS

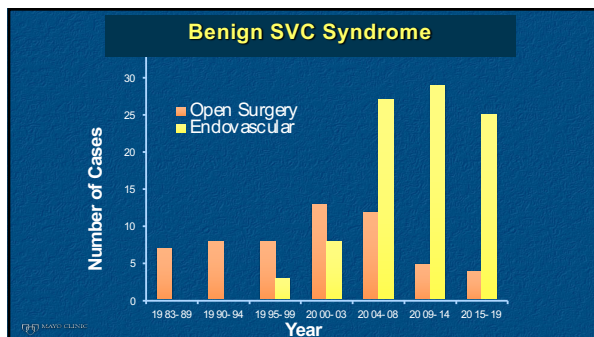
Comparison of Covered Versus Uncovered Stents for Benign Superior Vena Cava (SVC) Obstruction

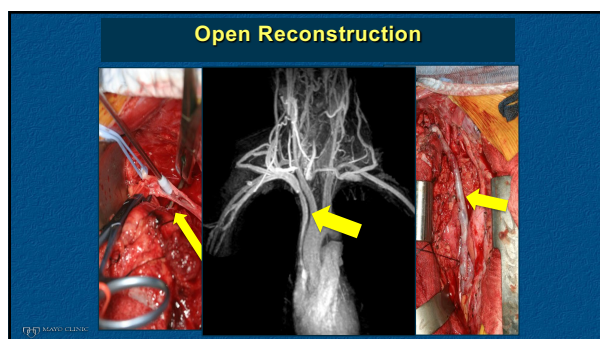
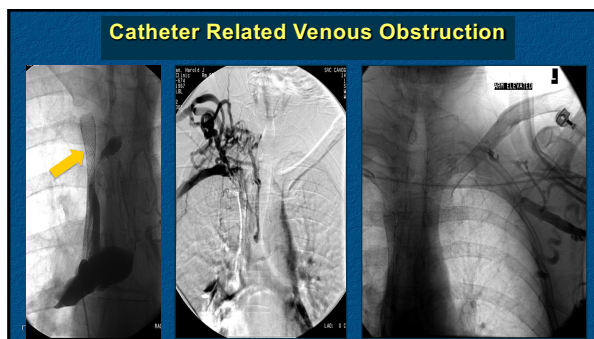
Masuda M, Haidhof G, Benjamin Simonson², Liu R, McPhail³, Manja Kater⁴,
 Melissa J. Sauer⁵, Matthew S. Johnson⁶, Andrew R. Stockdale⁷,
 James C. Anderson⁸, Sanjay Mirra⁹, Haraldur Bjarnason⁸

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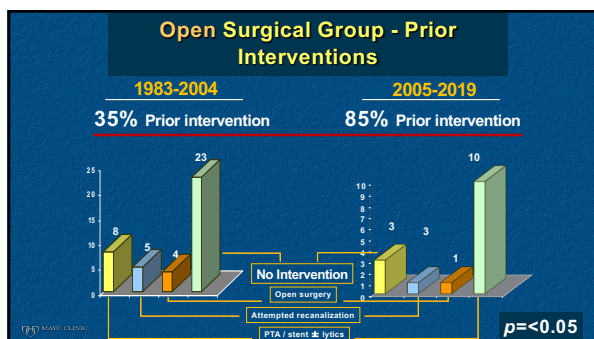
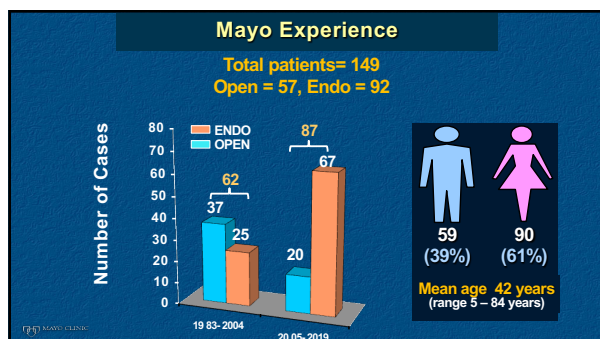
13522-1167

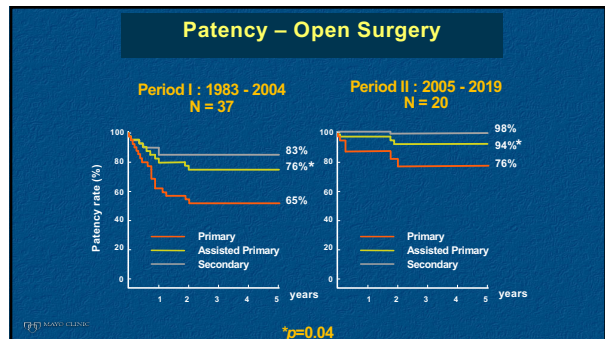
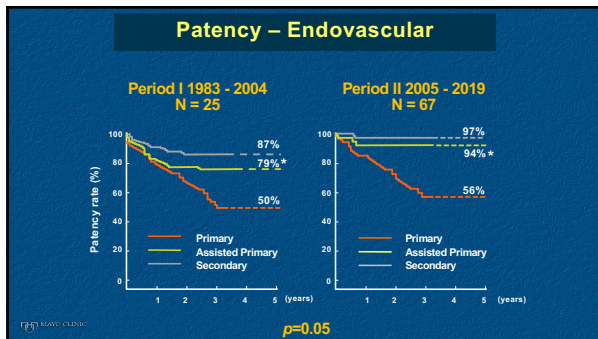
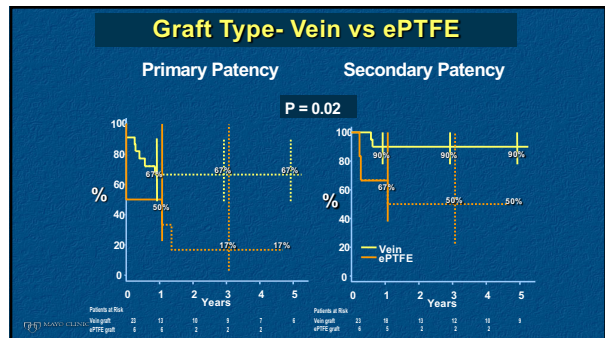
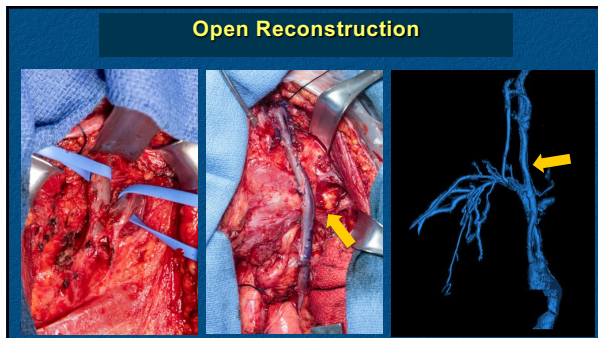
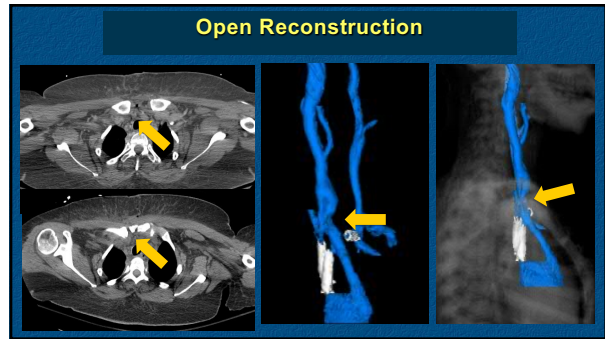
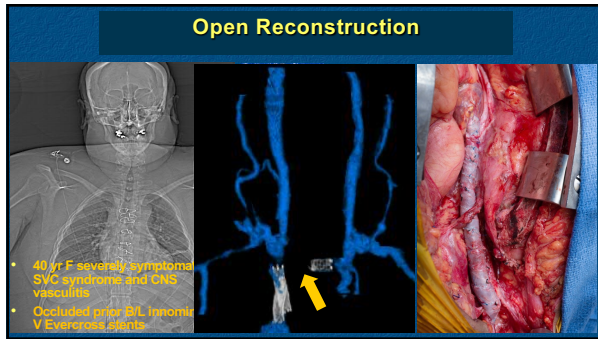
Conclusion Both covered and uncovered stents can be used for treating benign SVC syndrome. Covered stents, however, may be a more effective option at providing symptom relief and maintaining stent patency if validated by further studies.

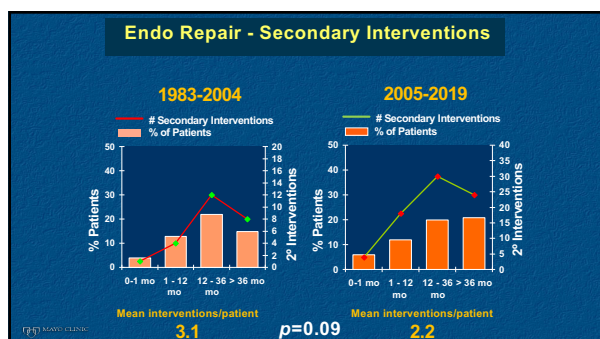
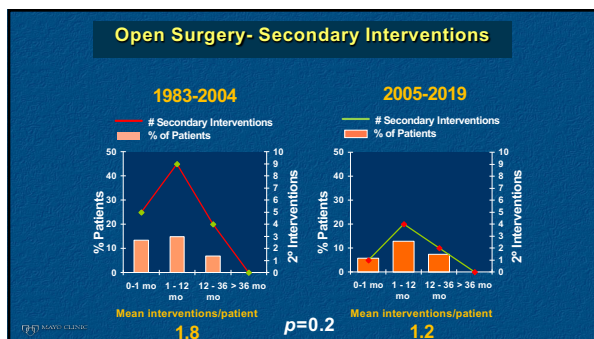
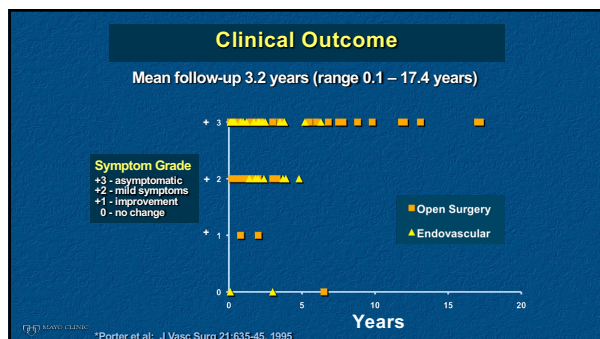




- ### SVC Reconstruction Long Term Management
- **Open bypass:** Anticoagulation for 1 yr following open bypass
 - **Endovascular Rx:** Dual antiplatelet therapy
 - **Long term anticoagulation** for pts with Thrombophilia / Central line thrombosis
 - **Late imaging surveillance** for recurrent symptoms







- ### Summary
- Endovascular intervention, though technically challenging is safe, with good symptom relief and has become the first line of therapy
 - Open repair remains an excellent option for patients who were not suitable for or who fail endovascular intervention
 - Open and Endovascular compliment each other

