


VEITH Symposium 2024


# Management of Venous Thoracic Outlet Syndrome




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## Disclosures

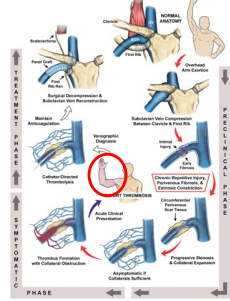
Financial: None



# Surgery




## VTOS is a chronic disease.



- Preclinical Phase**
  - Abnormal anatomy results in repetitive trauma.
- Clinical (Symptomatic Phase)**
  - Chronic narrowing results in upper extremity symptoms
    - DVT
    - Swelling
- Treatment Phase**
  - Catheter-directed therapy (initial)
  - First rib resections
    - +/- Venous reconstruction

PMID: 32614995



## Considerations before surgery


Anticoagulation and...

- Venorothbin can aid in...
  - > J Vasc Surg. 2006 Jun;43(6):1236-43. doi: 10.1016/j.jvs.2006.02.005.

**Long-term thrombotic recurrence after nonoperative management of Paget-Schroetter syndrome**

Ri Jason T Lee<sup>1</sup>, John K Karwowski, E John Harris, Jason S Haukoos, Cornelius Olcott 4th

Ri Affiliations + expand  
PMID: 16785247 DOI: 10.1016/j.jvs.2006.02.005



## Timing for Operation


- No clear

**Timing of Thoracic Outlet Decompression after Thrombolysis for Primary Upper Extremity Deep Venous Thrombosis: A Systematic Review**

Robert J C M F de Kleijn<sup>1</sup>, Ludob Schropp<sup>2</sup>, Jan Weeberink<sup>3</sup>, Gert J de Borst<sup>4</sup>, Bart-Jansen Pesti<sup>5</sup>

Group A: < 2 weeks after thrombolysis  
Group B: > 2 weeks after thrombolysis

Bleeding: 7% vs. 5%  
Rethrombosis: 7% vs 11% preoperative, 13% vs 21% postoperative



### Method of Decompression

Considerations:

- Supra
- Infrac
- Transaxillary:


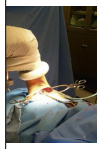
- Shorter operative time
- Cosmesis
- Stay away from the scalene fat pad

Supraclavicular

- May be more familiar from other procedures
- Best vascular control

Infraclavicular

- Short operative time
- Potential for less rib resection

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### Venous Reconstruction

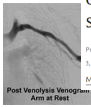



Clinical research study  
Thoracic outlet syndrome

- V
- A
- E

Surgical and endovascular central venous reconstruction combined with thoracic outlet decompression in highly symptomatic patients

Presented at the Annual Spring Meeting of the Vascular and Endovascular Surgery Society, San Diego, Calif. May 30-June 1, 2017

Moathew Wooster MD<sup>1</sup>, Blake Fernandez MD<sup>2</sup>, Kelli L. Summers MD<sup>3</sup>, Karli A. Illig MD<sup>3</sup>

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### Postoperative Therapy

- Patients re-init
- Typically, 1
- Unclear role fo
- Postoperative v
- Recurrent t
- Venoplasty



of venogram.

PMID: 32026125

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