Are There Any Clots That I Do Not Need To Treat: Superficial Thrombosis, Distal DVT or Incidental PE

Rachel Rosovsky MD MPH
Director, Thrombosis Research; Department of Hematology, Mass General Hospital
Assistant Professor of Medicine, Harvard Medical School
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Not all of these clots need to be treated
- Superficial venous thrombosis
- Distal DVT
- Incidental PE

Venous Thromboembolism: Scope of the Problem

Silent PE
1 Million

100,000

Estimated Cost of VTE Care $1.5 Billion/year

Venous Thromboembolism: The Third Leading Cause of Cardiovascular Death

DVT 2 Million

Post-thrombotic Syndrome 800,000

PE 600,000

Silent PE 1 Million

Deaths 100,000

Pulmonary Hypertension 30,000

Superficial Venous Thromboembolism

Suspect SVT

Superficial vein near surface of body. Often thrombophlebitis, presents pain/redness.

DVT

No DVT

Anticoagulate

Thrombus within 5 cm of SFJ or SPJ

Thrombus longer than 5 cm

Ongoing risk factors

Anticoagulation for 45 days
Symptomatic Care
Repeat clinical exam in 45 days

Symptomatic Care:
Elevate, heat, ibuprofen, compression, ambulation, abx

Re-evaluate

Disclosures

Rachel P. Rosovsky, MD, MPH
- Research Support: Janssen, BMS
- Advisory Board: Portola and BMS
Superficial Venous Thromboembolism

Suspect SVT

Duplex Ultrasound

To rule out the presence of coexistent DVT

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Thrombus longer than 5 cm

Ongoing risk factors

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Symptomatic Care:
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Repeat clinical exam in 45 days

Re-evaluate

Superficial Venous Thromboembolism

Suspect SVT

Duplex Ultrasound

Yes DVT

No DVT

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Repeat clinical exam in 45 days

Re-evaluate

Exception: SVT following endovenous ablation therapy. Natural history of endovenous heat-induced thrombus (EHIT) is more benign than spontaneous thrombus, less propensity for embolization.

Superficial Venous Thromboembolism

Suspect SVT

Duplex Ultrasound

DVT

No DVT

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Symptomatic Care:
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Repeat clinical exam in 45 days

Re-evaluate

Repeat US at 7 days to see if resolution or extension

Superficial Venous Thromboembolism

• Anticoagulation Options

Fondaparinux vs placebo

Clot extension: 0.3% vs 3.4%

Recurrent phlebitis: 0.3% vs 1.6%

DVT: 0.2% vs 1.2%

PE: 0% vs 0.3%

Rivaroxaban vs Fondaparinux

• No difference composite of symptomatic DVT or PE, progression or recurrence of SVT, and all-cause mortality

• No major bleeds in either group

• More CRNMB in rivaroxaban: 3% vs < 1%.
Distal Venous Thromboembolism

- Suspect DVT
- Duplex Ultrasound

DVT

Proximal
Distal

Thromboses located below knee in calf veins (i.e., popliteal vein is not involved)

High Risk
Low Risk

- High Risk
  - Unprovoked DVT
  - D-dimer >500 ng/mL
  - Extensive clots in multiple veins (e.g., >5 cm length, >7 mm diameter)
  - Thrombosis close to the proximal veins
  - Persistent/irreversible risk factors such as active cancer
  - Prior DVT or PE
  - Prolonged immobility
  - Inpatient status
  - Symptomatic

Low Risk

- Unprovoked DVT
- D-dimer ≤500 ng/mL
- Thrombosis located in superficial veins (i.e., popliteal vein involved)
- Symptomatic
- No ongoing risk factors (cancer, hospitalization, immobility)
- Normal cardiovascular reserve
- Normal ddimer

Surveillance with serial ultrasound, weekly x 2
Extends
Persist
Resolves

No further work

Incidental PE

- Incidental PE

Low Risk

- No DVT
- Asymptomatic
- No ongoing risk factors (cancer, hospitalization, immobility)
- Provoked – took away cause
  - Single clot
  - Normal cardiovascular reserve
  - Normal ddimer

Or

- High bleeding risk
- Poor prognosis

Risk factors

Treat
Consider No Treatment

US to assess for DVT

Yes DVT
No DVT

Low threshold to repeat diagnostic imaging for PE should symptoms persist or recur.
Closing Reflections

- Not all venous thrombosis need to be treated.
- Superficial vein thrombosis
- Distal DVT
- Incidental PE
- Low risk features
- Follow closely with serial scans/exam

Thank you

rproovsky@mgh.harvard.edu