

Recurrent DVT and Quality of Life in Patients Treated with Thrombectomy vs Thrombolysis



Conor M. Honan, BS; Samantha Bartholow, BS; Keith Pereira, MD
 Department of Interventional Radiology, Saint Louis University School of Medicine
 COI: None.

Introduction

- Deep venous thrombosis can result in great morbidity and mortality
- Different clinical scenarios require intervention as opposed to anticoagulation alone
- Interventional treatment options include catheter directed thrombolysis (CDT) and mechanical thrombectomy (MT)
- Some research has shown that mechanical thrombectomy leads to a higher DVT recurrence rate compared to catheter directed thrombolysis¹

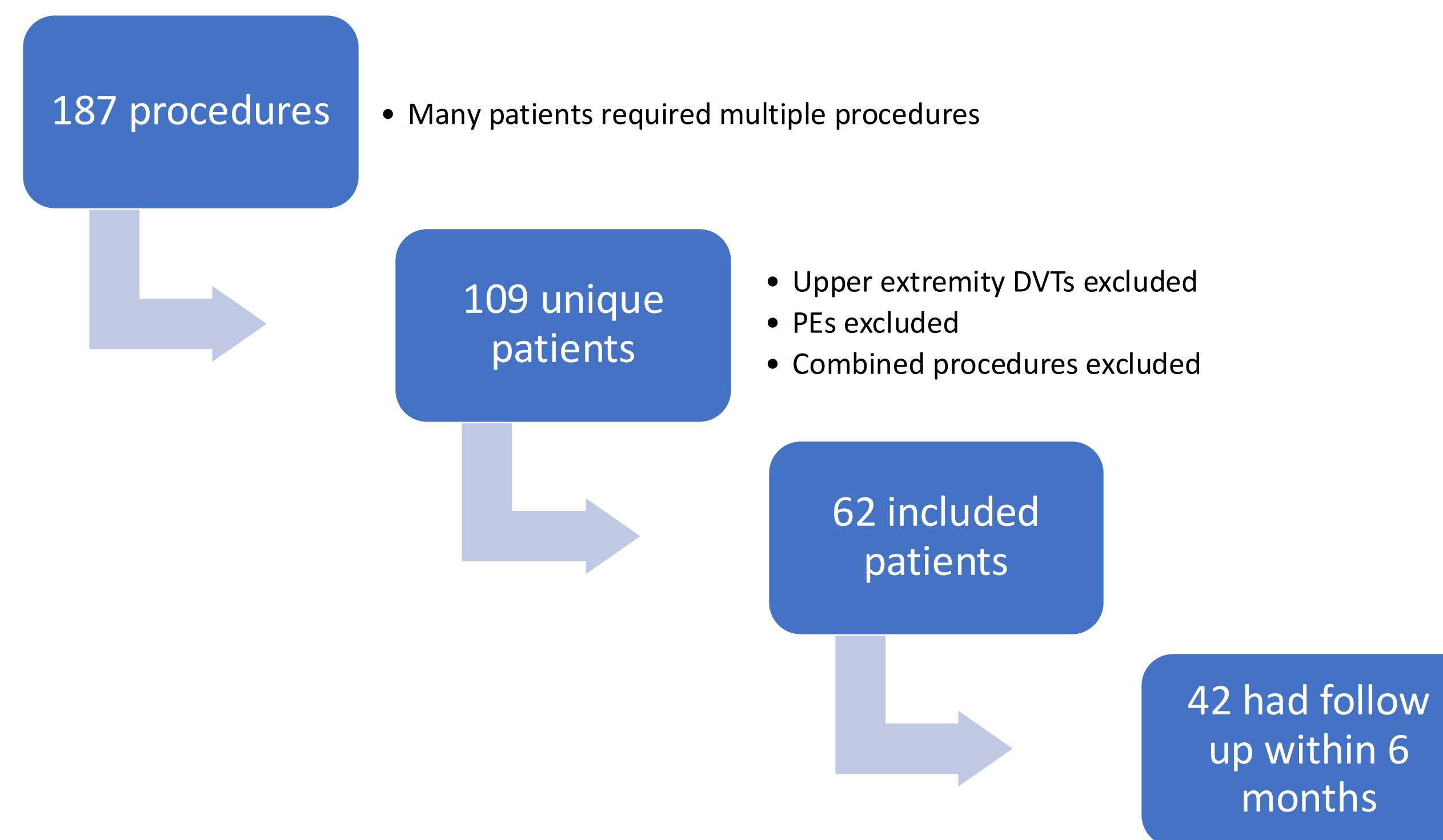
Study Aim

- To compare objective and subjective patient outcomes after being treated for DVT with CDT or MT treatments

Methods

- A patient list was obtained of all patients who underwent CDT or MT treatments for lower extremity DVTs between 2013-2023 at 2 Midwest hospitals
- Via retrospective chart review, objective and subjective evidence of recurrence was determined within a 6-month post-procedural period
- Objective outcomes:
 - US or venogram evidence of DVT recurrence
- Subjective outcomes:
 - Clinical symptoms of chronic or recurrent DVT

Data Collection



Results

Procedure	Total Patients	Follow up within 6 months	Subjective Evidence	Objective Evidence	Clinically Significant Evidence
MT	38	27	13	16	12
CDT	24	15	11	12	9

P-value = 0.495

Procedure	Average Procedure Length
MT	157.8 min
CDT	222.5 min*

P-value = 0.03

*As CDT requires two separate procedures, these individual procedure times were added together.

Conclusions

- No statistically significant difference in recurrence of DVT in either treatment group
- MT has a statistically significant shorter procedure time
- Areas of weakness:
 - Low rate of data collection (71% for MT, 62.5% for CDT)
 - Non-standardized evidence outcomes

Future Investigation

- Additional data from 2024 will be added.
- Survey responses will be collected from patients over the phone via the VEINES-QOL questionnaire²
- Currently under IRB review

INSTRUCTIONS
 HOW TO ANSWER:
 Answer every question by marking the answer as indicated. If you are unsure about how to answer a question, please give the best answer you can.

These questions are about your leg problem(s).

1. During the past 4 weeks, how often have you had any of the following leg problems? (check one box on each line)

	Every day	Several times a week	About once a week	Less than once a week	Never
1. Heavy legs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Aching legs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Swelling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Night cramps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Heat or burning sensation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Restless legs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Throbbing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Itching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Tingling sensation (e.g. pins and needles)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. At what time of day is your leg problem most intense? (check one)

<input type="checkbox"/> 1. On waking	<input type="checkbox"/> 4. During the night
<input type="checkbox"/> 2. At mid-day	<input type="checkbox"/> 5. At any time of day
<input type="checkbox"/> 3. At the end of the day	<input type="checkbox"/> 6. Never

3. Compared to one year ago, how would you rate your leg problem in general now? (check one)

<input type="checkbox"/> 1. Much better now than one year ago	<input type="checkbox"/> 4. Somewhat worse now than one year ago
<input type="checkbox"/> 2. Somewhat better now than one year ago	<input type="checkbox"/> 5. Much worse now than one year ago
<input type="checkbox"/> 3. About the same now as one year ago	<input type="checkbox"/> 6. I did not have any leg problem last year

References

1. Golubev, A. et al. "Comparing Incidence of Recurrent Iliofemoral Deep Venous Thrombosis Following ClotTriever Mechanical Thrombectomy and Thrombolysis: A Multicenter Retrospective Review." Journal of Vascular and Interventional Radiology vol. 34,3 (2023), S13.
2. Bland JM, Dumville JC, Ashby RL, Gabe R, Stubbs N, Adderley U, Kang'ombe AR, Cullum NA. Validation of the VEINES-QOL quality of life instrument in venous leg ulcers: repeatability and validity study embedded in a randomised clinical trial. BMC Cardiovasc Disord. 2015 Aug 11;15:85. doi: 10.1186/s12872-015-0080-7. PMID: 26260973; PMCID: PMC4531536.