

**The clinical results of the treatment of UEDVT with CDT or PMT were similar. However, PMT required shorter hospital stay and less intensive surveillance, leading to lower total costs” Mahmoud et al (2018).**

Abstract

**BACKGROUND AND AIMS:** We compared the immediate and one-year results as well as total hospital costs between catheter-directed thrombolysis (CDT) and pharmacomechanical thrombolysis (PMT) in the treatment of symptomatic upper extremity deep venous thrombosis (UEDVT).

**MATERIAL AND METHODS:** From 2006 to 2013, 55 patients with UEDVT were treated with either CDT or PMT at Helsinki University Hospital. Of them, 43 underwent thoracoscopic rib resection later in order to relieve phlebography-confirmed vein compression. This patient cohort was prospectively followed up with repeated phlebographies. CDT was performed to 24 patients and 19 had PMT with a Trellis™ device. Clinical evaluation and vein patency assessment were performed with either phlebography or ultrasound one year after the thrombolysis. Primary outcomes were immediate technical success, one-year vein patency, and costs of the initial treatment.

**RESULTS:** The immediate overall technical success rate, defined as recanalization of the occluded vein and removal of the fresh thrombus, was 91.7% in the CDT group, and 100% in the PMT group (n.s.). The median thrombolytic time was significantly longer in CDT patients than PMT patients (21.1 hours vs. 0.33 hours,  $P < 0.00001$ ). There were no procedure-related complications. The one-year primary assisted patency rate was similar in both groups (91.7% and 94.7%, respectively). There were no recurrences of clinical DVT. The hospital costs for the acute period were significantly lower in the PMT group than the CDT group (medians 11,476 € and 5,975 € in the in the CDT and PMT group, respectively ( $P < 0.00001$ )).

**CONCLUSIONS:** The clinical results of the treatment of UEDVT with CDT or PMT were similar. However, PMT required shorter hospital stay and less intensive surveillance, leading to lower total costs.

Reference:

Mahmoud, O., Vikatmaa, P., Räsänen, J., Peltola, E., Sihvo, E., Vikatmaa, L., Lappalainen, K. and Venermo, M. (2018) Catheter-Directed Thrombolysis vs. Pharmacomechanical Thrombectomy for Upper Extremity Deep Venous Thrombosis: Cost-Effectiveness Analysis. *Annals of Vascular Surgery*. March 6th. .

doi: 10.1016/j.avsg.2018.01.104.

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