

Acute thromboaspiration program in pulmonary embolism – a two-year single center experience

 **Matija Vrbanić***,
 **Zoran Marić,**
 **Ljiljana Švađumović,**
 **Biljana Šego,**
 **Darko Navoj,**
 **Vlatka Funduk,**
 **Kristijana Radić,**
 **Ivica Benko,**
 **Nikola Krajna,**
 **Marija Antunović**

Dubrava University Hospital,
Zagreb, Croatia

KEYWORDS: pulmonary embolism, thromboaspiration.

CITATION: *Cardiol Croat.* 2024;19(1-2):28. | <https://doi.org/10.15836/ccar2024.28>

***ADDRESS FOR CORRESPONDENCE:** Matija Vrbanić, Klinička bolnica Dubrava, Avenija Gojka Šuška 6, HR-10000 Zagreb, Croatia. / Phone: +385-1-2902-545 / E-mail: mvrbanic@kdb.hr

ORCID: Matija Vrbanić, <https://orcid.org/0000-0002-3229-9436> • Zoran Marić, <https://orcid.org/0000-0002-9121-4631>
Ljiljana Švađumović, <https://orcid.org/0000-0002-9068-2716> • Biljana Šego, <https://orcid.org/0000-0002-0806-1233>
Darko Navoj, <https://orcid.org/0000-0001-8899-6524> • Vlatka Funduk, <https://orcid.org/0000-0001-7070-188X>
Kristijana Radić, <https://orcid.org/0000-0002-6098-254X> • Ivica Benko, <https://orcid.org/0000-0002-1878-0880>
Nikola Krajna, <https://orcid.org/0009-0008-7628-6603> • Marija Antunović, <https://orcid.org/0009-0009-6583-6910>

Acute pulmonary embolism (PE) is a form of venous thromboembolism (VTE) that is common and sometimes fatal. The evaluation of patients with suspected PE should be efficient so that patients can be diagnosed, and therapy administered quickly to reduce the associated morbidity and mortality. The decision to use a thromboaspiration device in the treatment of PE depends on several factors and should be carefully evaluated on a case-by-case basis by a medical team. Thromboaspiration can be an appropriate choice in certain situations, but it may not be suitable for all patients with PE. Thromboaspiration is typically considered for severe cases where the patient is hemodynamically unstable or not responding to standard treatments like anticoagulation therapy.^{1,2}

We have been using transcatheter thromboaspiration for acute PE as the method of choice for treatment since March 2022. In that period 26 patients were successfully treated invasively. The medical team will assess the potential benefits of thromboaspiration against the risks associated with the procedure. Risks may include bleeding, infection, vascular damage, or embolization of clot fragments. We will show what we have learned through two years of experience about devices for transcatheter thromboaspiration and why they are increasingly valuable tools in the treatment of severe PE.

RECEIVED:
September 28, 2023

ACCEPTED:
October 7, 2023



LITERATURE

1. Stout KK, Daniels CJ, Abouhoss JA, Bozkurt B, Broberg CS, Colman JM, et al. 2018 AHA/ACC Guideline for the Management of Adults With Congenital Heart Disease: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol.* 2019 Apr 2;73(12):1494-1563. <https://doi.org/10.1016/j.jacc.2018.08.1028>
2. Setacci C, Benevento D, de Donato G, Galzerano G, Bracale UM, Setacci F, et al. Acute Deep Vein Thrombosis and Pulmonary Embolism: is the Thromboaspiration Device an Appropriate Choice? *Transl Med UniSa.* 2020 Feb 20;21:38-46. **PubMed:** <https://pubmed.ncbi.nlm.nih.gov/32123681/>