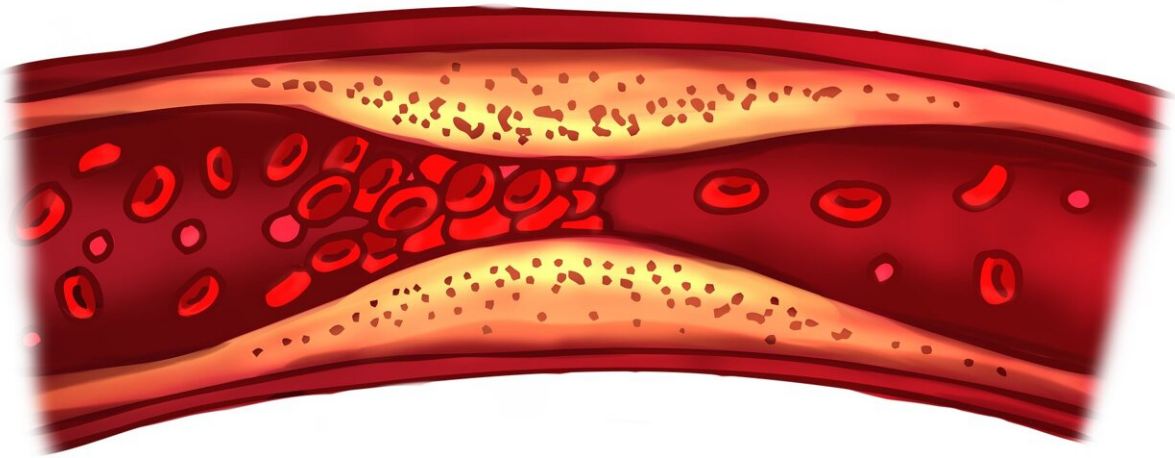


Catheter-directed mechanical thrombectomy system demonstrates safety and effectiveness in pulmonary embolism patients

May 3 2024



Credit: Pixabay/CC0 Public Domain

New data from the Acute Pulmonary Embolism Extraction Trial with the AlphaVac System (APEX-AX) demonstrated that catheter-directed mechanical thrombectomy is safe and effective in patients with acute intermediate-risk pulmonary embolism (PE) with significant improvement in the right ventricle (RV) function and minimal major adverse events.

The safety and efficacy results from the prospective trial were presented

as late-breaking science at the Society for Cardiovascular Angiography & Interventions (SCAI) 2024 [Scientific Sessions](#).

Pulmonary embolism (PE), a blood clot that blocks and stops blood flow to an artery in the lung, is common and often life-threatening. [PE represents the third-leading cause of cardiovascular mortality with 100,000 to 180,000 deaths per year](#). Catheter-directed therapies continue to evolve to address the large population of acute PE patients.

The APEX-AV trial is a prospective, single-arm, multicenter investigational device exemption trial in which patients with acute intermediate-risk PE were treated with the AlphaVac F1885 aspiration system.

The primary efficacy endpoint was a change in the [right ventricle](#)-to-left ventricle (RV/LV) ratio from baseline to 48 hours post-procedure on core lab–adjudicated computed tomography angiography. The primary safety endpoint was a composite of 48 hours post-procedure major adverse events: device-related death, major bleeding, and device-related serious adverse events.

Among the 122 patients treated at 25 U.S. sites, the average reduction in the RV/LV ratio was 0.45 with a 35.5% mean percentage reduction in the overall clot burden from the baseline at 48 hours post-procedure. Five patients had major adverse events within the 48-hour visit and no death was reported. Lastly, procedural times were short with a mean procedural time of 37.2 ± 17.7 minutes.

"Pulmonary emboli can be extremely dangerous and require effective and prompt action," said William Brent Keeling, MD, Associate Professor at the Emory School of Medicine, and lead author of the study.

"Catheter-directed [mechanical thrombectomy](#) using a new aspiration system can achieve excellent thrombus removal with a wonderful safety profile, thus enabling more tools in our armamentarium for the treatment of acute PE."

More information: "Evaluating the safety and efficacy of the AlphaVac F1885 system in acute Intermediate risk PE patients: APEX-AV trial" Friday, May 3, 2024; 2:14-2:21 PM PT.

scai.org/scai-2024-scientific-sessions

Provided by Society for Cardiovascular Angiography and Interventions

Citation: Catheter-directed mechanical thrombectomy system demonstrates safety and effectiveness in pulmonary embolism patients (2024, May 3) retrieved 16 August 2024 from <https://medicalxpress.com/news/2024-05-catheter-mechanical-thrombectomy-safety-effectiveness.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.