

Mechanical thrombectomy significantly improves patient outcomes and quality of life following a pulmonary embolism

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Six month outcomes from the FlowTrievery All-Comer Registry for Patient Safety and Hemodynamics (FLASH) registry were presented

today as late-breaking clinical research at the Society for Cardiovascular Angiography & Interventions (SCAI) 2023 Scientific Sessions. The prospective multi-center study found that patients with pulmonary embolism (PE) who were treated with mechanical thrombectomy showed significant improvement in symptoms, quality of life and cardiac functions.

Pulmonary embolism, a blood clot that starts in a blood vessel in the body and travels to the lung, is the third leading cause of cardiovascular death after heart disease and stroke.

Survivors of PE often experience a decreased quality of life after treatment including persistent shortness of breath and a reduced capacity to exercise. Initial data shows the safety and effectiveness of long-bore thrombectomy, removal of blood clots using a mechanical catheter, for the treatment of PE rather than the current standard-of-care, anticoagulation along with the use of catheter-based interventions, but limited data exist on longer-term outcomes.

FLASH is a prospective, single-arm, multicenter registry of acute PE [patients](#) treated with the FlowTrieve System (Inari Medical). Six-month clinical outcomes were assessed, including Modified Medical Research Council (Mmrc) dyspnea score, right ventricular (RV) function, 6-minute walk test (6MWT) distances, and PEmb Quality of Life (QoL) scores.

The trial enrolled 800 patients across 50 US sites, 54.1% were male and the mean age was 61.2 years. Thrombolytic contraindications were reported in 32.1% of patients, and 77.1% were classified as intermediate-high-risk and 8% as high-risk. Most patients (74.8%) completed all study visits through a six-month follow-up.

In 599 patients who completed a six-month follow-up, multiple

statistically significant functional and clinical improvements were reported during the study period.

Findings show:

- The proportion of patients with normal echocardiographic RV function increased from 15.1% pre-thrombectomy to 95.1% and 94% had normal pulmonary artery pressures.
- All-cause mortality was 0.3% at the 48-hr visit, 0.8% at the 30-day visit, and 4.6% at study exit (median = 199 days post-treatment).
- Patient exercise tolerance and symptoms also improved significantly after treatment. The distance a patient can walk in six minutes increased from 180 meters at 48 hours post treatment to 398 meters.
- Median mMRC dyspnea score improved from 3.0 at baseline to 0.0 (P

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