

INTRODUCTION

Pulmonary emboli (PE) is a third leading cause of cardiac arrest.

Massive PE without cardiac arrest associates with 30% mortality rate, and up to 95% mortality rate with cardiac arrest (2)

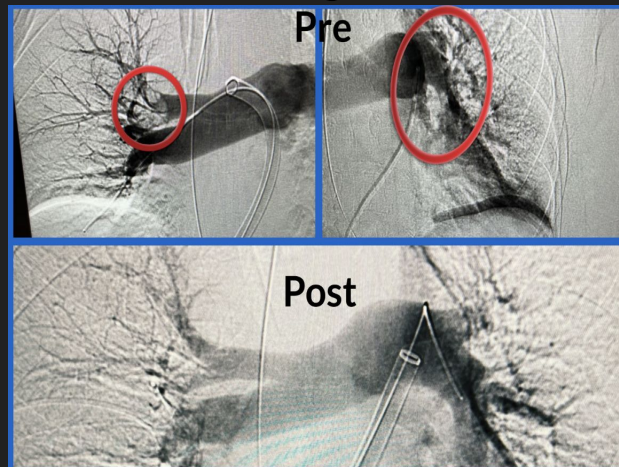
In this case report, we present a patient, who suffered a cardiac arrest from bilateral massive PE complicated with spleen and liver laceration, required mechanical thrombectomy that resulted in positive outcome.

This case highlights the importance of early diagnosis of massive pulmonary emboli in the setting of cardiac arrest and reports positive outcome of percutaneous mechanical thrombectomy using Inari FlowTrievers device.

CASE DESCRIPTION

57 year-old female with a history of recent abdominoplasty complicated with intra-abdominal infection developed sudden onset dyspnea, was found unresponsive and pulseless at home. She had successful ROSC and intubation enroute to the hospital. Emergent bedside ultrasound identified no free wall motion abnormalities, pericardial effusion but with moderate right ventricle dilatation and unable to estimate RVSP due to severe tricuspid regurgitation and left popliteal fossa thrombus. Obstructive shock was stabilized with fluid resuscitation and vasopressors. Emergent CT chest angiogram confirmed massive pulmonary embolism and splenic laceration with surrounding perisplenic hemorrhage suspected to be secondary to CPR. Tissue plasminogen activator was contraindicated and she successfully underwent mechanical thrombectomy with Inari FlowTrievers device and IVC filter placement. Her shock resolved and hemoglobin remained stable. She was trialed on continuous heparin infusion and then transitioned to DOACs at discharge. She was discharged home without major organ damage.

Image 1



DISCUSSION

- ❖ Clinicians should always consider pulmonary emboli as a cause of cardiac arrest and consider mechanical thrombectomy as an alternative treatment.
- ❖ Inari FlowTrievers is a percutaneous mechanical thrombectomy device used to remove blood clots in acute massive/submassive PE with rapid improvements of symptoms. It is comprised of a 20-F aspiration guided catheter (AGC) advanced over a wire to right or left pulmonary arteries, and the clot can be extracted via aspiration (1)
- ❖ It has a positive outcome in the FLARE study, a prospective, single-arm, multicenter trial conducted from 2016-2017 showing improved RV function at 48 hours post-procedure and low complication (1% major bleeding) (3, 4)
- ❖ This is an important alternative to other treatment methods such as thrombolysis and anticoagulation

REFERENCES

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Image 2

