

Tandem Catheter Directed Thrombolysis and Bilateral Uterine Artery Embolization

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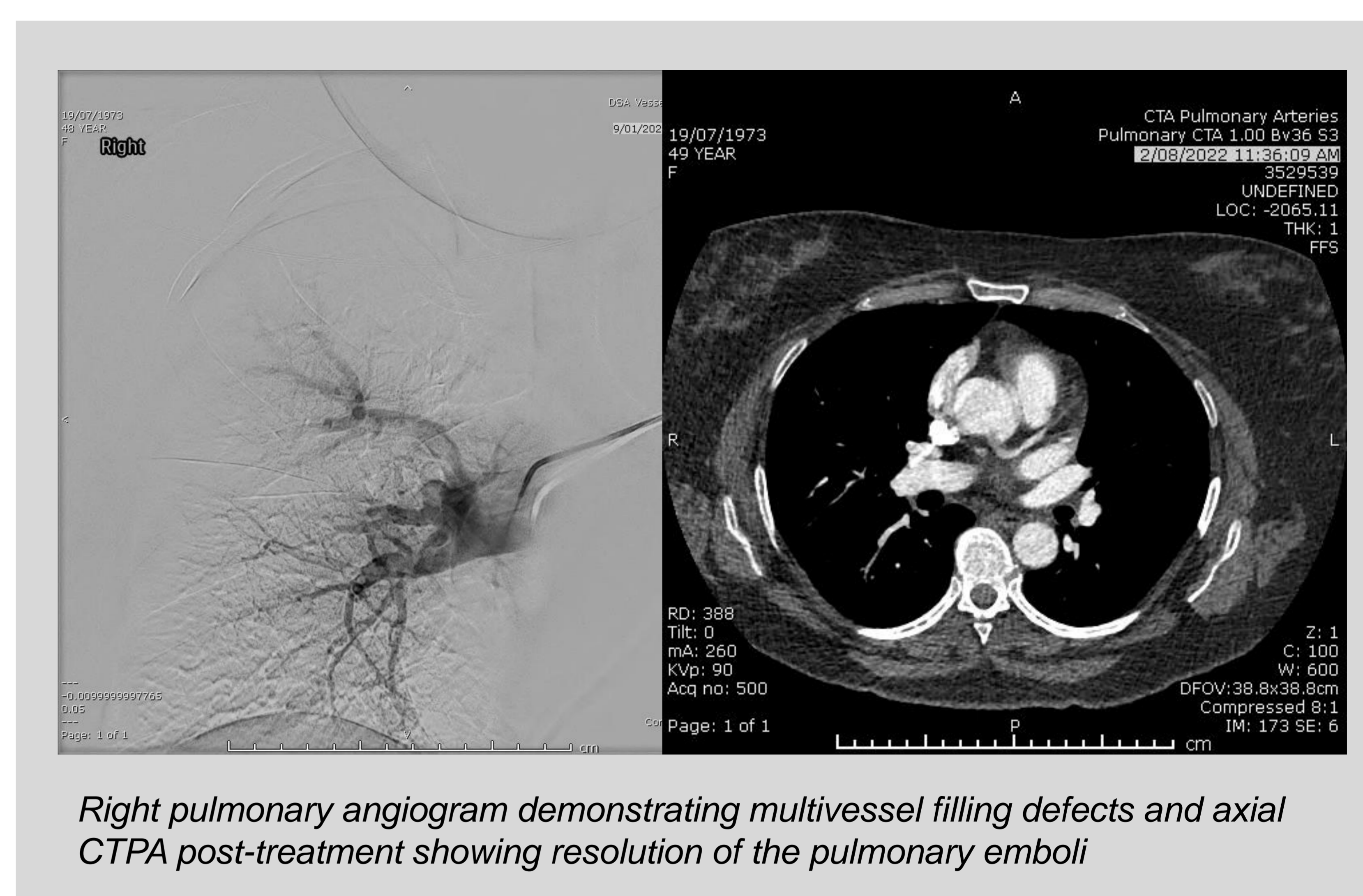
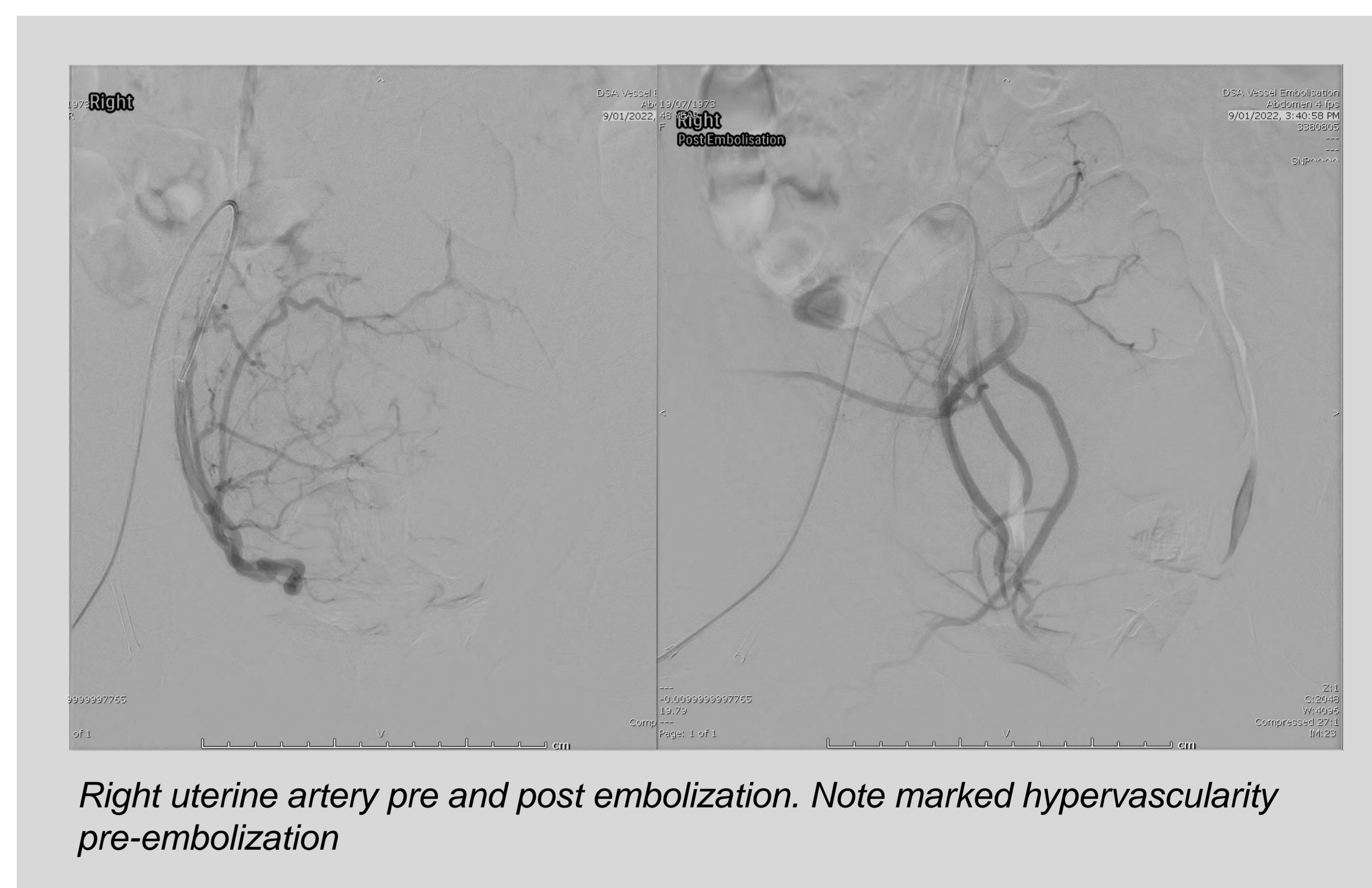
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Background

Anticoagulation remains the first-line treatment for pulmonary emboli, with a significant improvement on mortality. (1) The balance between anticoagulation and bleeding risk remains a challenge for physicians, particularly in those with active haemorrhage.

Method

We present a case of a 48-year-old woman with high-risk pulmonary emboli and a history of tranexamic acid use for four months due to heavy uterine bleeding. Her treatment options were limited by profound hypoxia and ongoing heavy vaginal bleeding. A multidisciplinary team consisting of respiratory, gynaecology, intensive care and interventional radiology decided on bilateral uterine artery embolization and catheter directed thrombolysis.



Results

Bilateral uterine arteries were embolised with 500-700 μ m PVA particles until near vascular stasis was achieved. Immediately after, 1,000,000 units of urokinase was sprayed into the thrombus, followed by an infusion. This was terminated at 25 hours with improved haemodynamics and oxygenation, although residual thrombus remained in the right upper lobe. The patient was started on therapeutic anticoagulation 48 hours after the cessation of catheter direct thrombolysis and underwent an outpatient hysterectomy a month later.

Conclusion

Tandem procedures have a role in managing patients presenting with pulmonary emboli and bleeding. The role of such procedures is uncertain as mechanical thrombectomy becomes more widespread.

Discussion

This case highlighted several important aspects of PE management, primarily the importance of prompt multidisciplinary team decision-making in complex cases. This approach has been shown to improve patient outcomes and led to the development of a PERT at our institution. (2)

Additionally, this case demonstrates the importance of access to timely mechanical thrombectomy. Patients with contraindications to systemic lysis, like the one presented, can undergo proactive thrombectomy before decompensation. Had this been available, it could have spared the patient the bleeding risk of catheter-directed thrombolysis and possibly negated the need for uterine artery embolization.

References

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