

INTRODUCTION

Massive pulmonary embolism (PE) is a time-sensitive emergency associated with high mortality if not promptly treated¹. Systemic thrombolysis is the first-line therapy in hemodynamically unstable PE²; however, adjunctive interventions such as mechanical thrombectomy may be necessary in selected cases. We report a case highlighting the role of mechanical thrombectomy following thrombolysis in a critically ill patient with massive PE.

CASE DESCRIPTION

A 66-year-old female with untreated bilateral varicose veins presented with acute dyspnoea and reduced consciousness for one day, preceded by bilateral lower limbs pain for a week. She was hypotensive, tachycardic, tachypnoeic, hypoxic. CT Pulmonary Angiogram (CTPA) demonstrated massive PE involving the pulmonary trunk, bilateral pulmonary arteries and segmental branches of all lobes with signs of right heart strain. She was immediately administered with intravenous alteplase. Despite thrombolysis, she remained haemodynamically unstable, necessitating urgent mechanical thrombectomy. Large clot burden was aspirated from the right superior and inferior pulmonary arteries. However, despite aggressive intervention and timely resuscitative efforts, she deteriorated further in the due to multiorgan failure, requiring maximal inotropic support and continuous renal replacement therapy (CRRT). She succumbed on day three of admission.

DISCUSSION

This case highlights the limitations of systemic thrombolysis in patients with high clot burden and persistent instability. Mechanical thrombectomy plays pivotal role in improving pulmonary circulation by reduction in clot burden when thrombolysis is insufficient³. Treating physicians must remain vigilant for signs of ongoing shock post-thrombolysis and act swiftly to escalate care, including early involvement of interventional radiology.

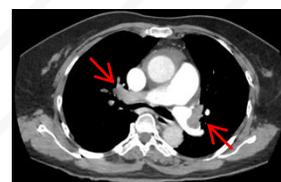


Fig. 1 & 2: CTPA showing massive PE



Fig. 3: Pre-thrombectomy showing dot burden at right inferior and superior pulmonary arteries

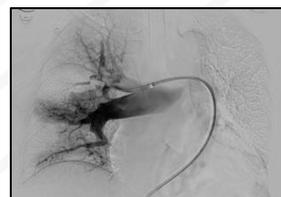


Fig. 4: Post-thrombectomy showing improved right pulmonary artery perfusion.

CONCLUSION

Mechanical thrombectomy is a valuable adjunct to systemic thrombolysis in the management of massive PE with hemodynamic instability. Early identification, timely escalation, and multidisciplinary approach are key to improving outcomes. This case underscores the need for emergency department to be prepared for advanced interventional strategies.

REFERENCES

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