The administration of TPA for hemodynamically unstable pulmonary embolism (PE) may carry the risk of hemorrhagic complications.

Unilateral adrenal hemorrhage (UAH) in adults is an exceedingly rare event, typically associated with trauma or the use of anticoagulants. In this instance, we describe a unique case involving unilateral hemorrhage following TPA treatment for unstable PE and explore the associated outcomes.

**Case Presentation**

- A 61-year-old male, history of bowel resection a month ago, presented with severe hypoxemia and cardiac arrest.
- After CPR, a Chest CTA revealed extensive bilateral PE with a significant clot burden (Figure 1).
- Started with tPA followed by heparin. His clinical condition improved, and a repeated CTA showed a reduction in clot burden (Figure 2).
- Investigated rule out antiphospholipid syndrome.
- On the fifth-day post-tPA, He had abdominal pain with 4g/dL drop in Hgb levels. A CT-scan confirmed left adrenal hemorrhage, measuring 4.7x4.2 cm (Figure 3 & 4).

**Anticoagulation** was discontinued and an IVC filter was placed, and hydrocortisone 5mg daily was prescribed.

**Discussion**

- Systemic thrombolytic agents are a viable option for patients with massive or hemodynamically unstable PE [3]. However, thrombolytic and anticoagulant therapy can increase the risk of significant bleeding [6], with one rare complication being adrenal hemorrhage [7].

- Besides, antiphospholipid antibodies patients are more susceptible to adrenal hemorrhage when exposed to surgery, infection, or anticoagulation [8].

In our case, the patient had no bleeding risks and tested negative for antiphospholipid syndrome, which made the occurrence of adrenal hemorrhage was extremely unexpected. Treatment with hydrocortisone and IVC filter resulted in a remarkable improvement in the patient's clinical outcome.

**Conclusions**

- Adrenal hemorrhage is a rare complication resulting from anticoagulation treatments, which are viable treatments for massive or hemodynamically unstable pulmonary embolism.
- Patients with antiphospholipid antibodies are more susceptible to develop adrenal hemorrhage when being exposed to bleeding-induced agents.
- Adrenal hemorrhage clinical presentation is nonspecific, but it can be well managed with hydrocortisone when detected.
- For this recent, Patients with massive PE should receive thrombolytic therapy unless severe contraindications are present.[3]

**References**