

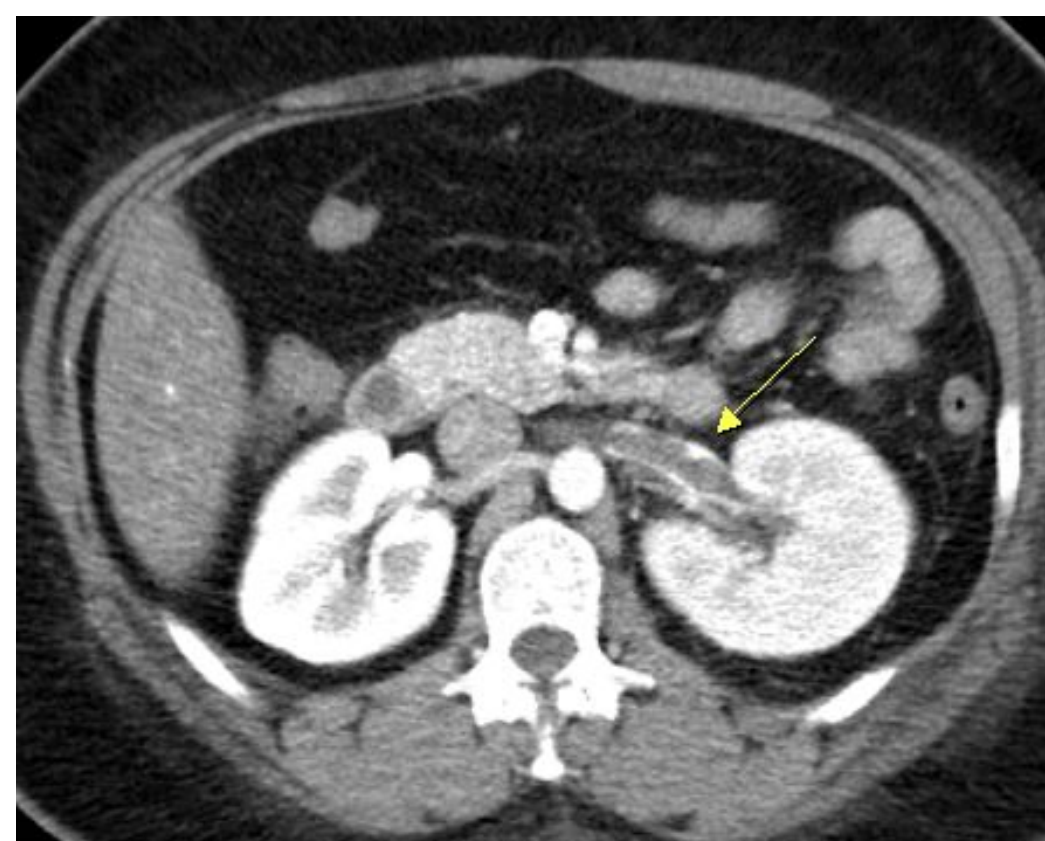
## Purpose

- Renal vein thrombosis (RVT) is a rare condition, usually found in patients with nephrotic syndrome or renal malignancy.
- Less commonly, RVT can be observed secondary to oral contraceptive pill (OCP) use.
- Therefore, there are only a few reported cases in literature of OCP use as an identifiable risk factor for RVT.
- The purpose of this poster is to describe a rare case of acute RVT associated with OCPs that was successfully treated with mechanical aspiration thrombectomy and lysis.

## Methods

- A 30-year-old female with history of migraines and OCP use presented with sudden-onset, severe left-sided abdominal pain with radiation to the left flank.
- She recently discontinued her OCP a few days before her symptom onset.
- CT angiogram revealed edematous left kidney with non-opacified dilated left renal vein and an anatomical variant of a circumaortic left renal vein, confirming the suspicion of RVT.

- Intravenous heparin was started, but the patient was offered mechanical thrombectomy given persistent pain and worsening acute kidney injury in the setting of complete venous obstruction on repeated imaging.



**Figure 1: CT Angiogram (axial view)** - Slightly enlarged left kidney with asymmetrical cortical enhancement and venous thrombus observed as a linear filling defect in the left renal vein (arrow).



**Figure 2: CT Angiogram (coronal view)** - Sharp cut off intraluminal contrast in the middle of accessory left renal vein (arrowhead). Venous thrombus also observed in the left renal vein (arrow).

## Results

- A 5Fr vascular sheath was introduced into the right internal jugular vein.
- RVT was confirmed by hand-given contrast injection via 5Fr angiographic catheter. An accessory vein with multiple filling defects was also observed.
- A 14Fr reinforced long vascular sheath was placed in the inferior vena cava (IVC). A Penumbra Cat12 thrombectomy device was introduced over the wire and advanced to the left renal vein.
- Repeated passes through the renal vein thrombus were performed and into the accessory renal vein.



**Figure 3: (left)** - venogram demonstrates left renal vein thrombus as a filling defect extending from the left renal vein (arrow) to the left accessory vein (arrow heads) **(right)** - post thrombectomy venogram demonstrates re-established blood flow

- Final completion venogram demonstrated re-established blood flow and the patient reported immediate pain relief.
- She was discharged home on oral anticoagulants without any significant complications.



**Figure 4: Multiple thrombi aspirated from the left renal vein and its accessory veins**

## Conclusion

- Our case described a patient with a history of migraines and concurrent OCP use who presented with flank pain, resulting in the identification of RVT on imaging. When anticoagulation alone is not therapeutic, minimally invasive mechanical thrombectomy can be utilized to clear thrombi for future cases.