

Case report:

Wunderlich syndrome (WS) is a rare life-threatening and challenging presentation in the emergency department.

We reported a 66-year-old lady with a history of end-stage renal disease (ESRD) on hemodialysis for five years, type 2 diabetes mellitus, and hypertension, presented with sudden onset of right upper quadrant abdominal pain for two hours.

On presentation: she was hemodynamically stable, normal vital signs

On examination; she had moderate right upper quadrant abdominal and right flank tenderness with positive Murphy's sign

After one hour in the emergency department, the patient complained of increased pain intensity and dizziness associated with a drop in her blood pressure to 89\59 mmHg, tachycardia of 103 bpm with cold and clammy extremities.

The patient improved after intravenous crystalloids and nor-epinephrine infusion.

POCUS examination was unremarkable except for Rt. Renal mass
Laboratory investigation was unremarkable except for revealed mildly elevated lactate.

Contrast-enhanced computerized tomography (CECT) performed which showed a sizeable 9x10 cm perinephric hematoma.

On the next day, the patient showed a drop in her hemoglobin and received three units of Packed red blood cells (PRBCs)
Subsequently, she underwent fluoroscopic guided selective catheterization of the right renal artery which revealed, multiple irregular areas of active bleeding and multiple microaneurysms arising from the upper pole segmental interlobar arteries.

Super selective embolization of the four segmental arteries was done, and the patient recovered without any complications.

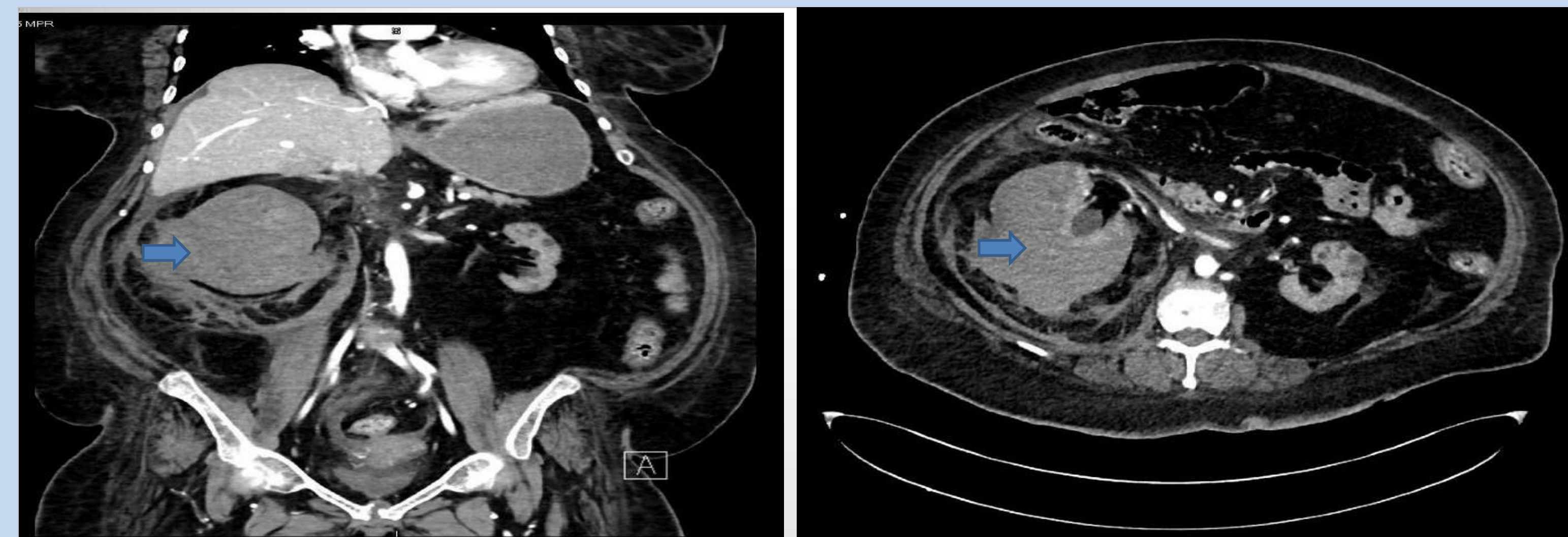


Figure 1: perinephric hematoma (Block arrows)

Discussion :

Spontaneous perirenal hemorrhage was reported first by Bonet in 1679. Then later described by Wunderlich in 1857 as spontaneous renal bleeding confined to the subcapsular and peri-renal spaces.

It might present with mild abdominal pain to more severe symptoms which mimic the more acute conditions like acute appendicitis, dissecting abdominal aneurysm, perforated viscus, acute pancreatitis, and mesenteric vascular occlusion.

There is a classic triad of sudden onset of unilateral flank pain, palpable lumbar mass, and symptoms of hypovolemia (Link s triad), the presence of all components is uncommon and can be found in up to 20% of patients. Patients may or may not have hematuria. The most frequently reported symptom in the literature is flank pain then hematuria and shock. Which is unique here in our case is the atypical presentation of right upper quadrant abdominal pain which mimics biliary pain. Bedside ultrasound is a useful tool especially in patients with hemodynamic instability, it can detect hypo to hyperechoic perirenal collection or mass.

Contrast-Enhanced CT is the initial radiological examination of choice. It can detect the hematoma, and extravasation of the contrast if there is ongoing bleeding.

In a meta-analysis by Zhang et al. CT found to have 100% sensitivity in the detection of peri-renal hemorrhage.

MRI is an alternative to CT scan.

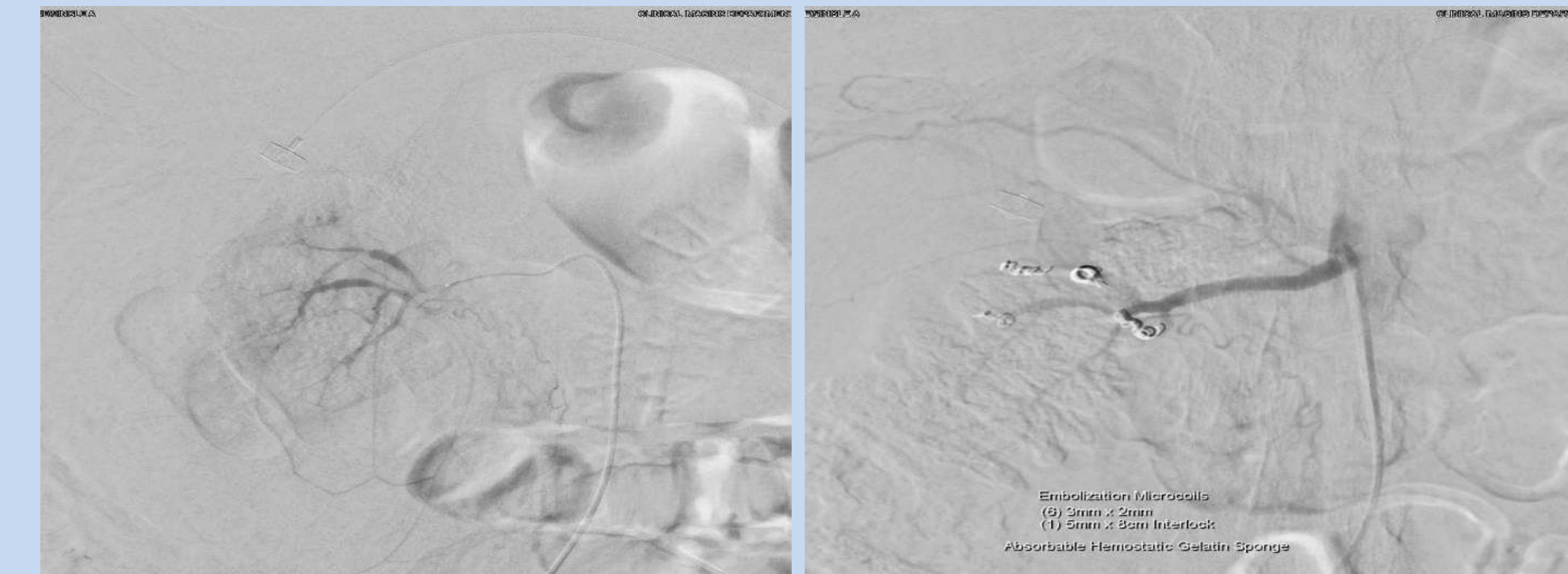


Figure 2:A: Contrast extravasation and microaneurysms

Figure 2: B:Superselective embolization using microcoils

Conclusion & perspectives :

Although WS is a rare emergency department presentation, the emergency physician should add it to his differential diagnosis list while managing a patient with abdominal and flank pain especially in a patient with hemodynamic instability. Early recognition, prompt stabilization and timely disposition to the concerned specialty are the cornerstones of the (WS) management

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