

Rare Cause of Spontaneous Retroperitoneal Haemorrhage: Ruptured Pseudoaneurysm of Capsular Branch of Renal Artery

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Abstract: Spontaneous retroperitoneal haemorrhage is a rare disease .It is an emergency for both surgeon and intervention radiologist. It is also called as Wunderlich syndrome and patient usually presents with lenk's triad. We reporting a rare cause of spontaneous retroperitoneal haemorrhage in 48 year old male patient, who presented with acute flank pain, flank mass on left side and hypovolemic shock. The cause of haemorrhage was diagnosed to be ruptured pseudoaneurysm of capsular branch of left renal artery on diagnostic subtraction angiography. Super-selective embolization of pseudo-aneurysm was done with polyvinyl alcohol particles.

Keywords: Spontaneous retroperitoneal haemorrhage, Wunderlich syndrome, Lenk's triad, Capsular branch of renal artery

1. Introduction

Spontaneous retroperitoneal haemorrhage is a rare but well known clinical entity. Patients with retroperitoneal haemorrhage presents with flank pain, flank mass and hypovolemic shock. It is seen association with underlying coagulopathy, anticoagulation therapy, rupture of pathological lesion of adrenal / renal or rupture of visceral/aortic aneurysms. However rupture of pseudoaneurysm of capsular branch of renal artery is very rare and unheard cause of retroperitoneal haemorrhage. The etiopathogenesis of formation of pseudoaneurysm of capsular branch of renal artery is unknown.

2. Case Report

48 year old male patient presented with left flank pain, flank mass and shock. His blood pressure was 90/60, pulse rate was 110bpm, Hb was 10.6g% and RFT were slightly deranged. Patient was immediately shifted for CECT abdomen. On CECT, there was presence of ill-defined heterogeneous area in the left retroperitoneal space which is

compressing the left kidney below. Left adrenal was not visualized separately from it. A twig of artery is seen arising from left renal artery and reaching up to the avidly enhancing focus within the heterogeneous area. After evaluation of CECT abdomen, provisional diagnosis of ruptured pseudo-aneurysm of left adrenal artery was thought.

Patient was immediately shifted to DSA lab and femoral puncture was done and left renal artery was accessed with PICARD catheter, then super selective cannulation of the artery was done to opacify the pseudoaneurysm. On analyzing the images, it was concluded that it is the pseudoaneurysm of capsular branch of left renal artery. Then, selective embolization of capsular branch of left renal artery was done with polyvinyl alcohol particles (300-500 microns).

On follow-up, patient was stable and able to do his day to day activities.



Figure 1: A twig of artery arising from left renal artery and reaching upto the avidly enhancing oval area within the heterogeneous attenuating hematoma, suggestive of ruptured pseudoaneurysm.

Volume 11 Issue 6, June 2022

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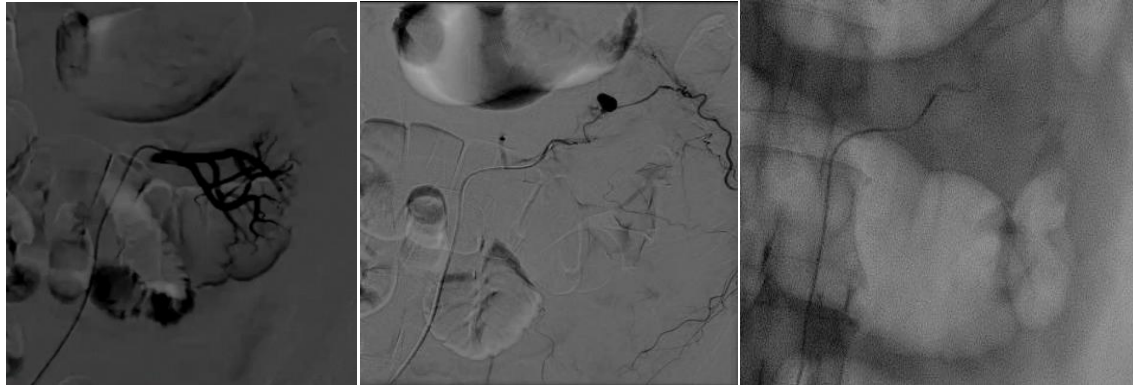


Figure 2: Cannulation of left renal artery, super-selective cannulation of capsular branch of left renal artery and opacification of pseudoaneurysm with active leakage from it. Embolization of capsular branch of left renal artery with PVA particles.

3. Discussion

Spontaneous retroperitoneal haemorrhage is a rare clinical entity. It is difficult to clinically suspect this disease due to absence of history of trauma. Even if it gets diagnosed, the standard treatment of choice, which is endovascular embolization of bleeding artery is unavailable at many centers. Therefore, a strong clinical suspicion and referral of the patient to the proper center is the only available armor in the hands of clinician to save the life of the patient.

4. Conclusion

Spontaneous retroperitoneal haemorrhage is a rare and catastrophic clinical disease. A high degree of suspicion and timely radiological investigation and intervention can save the patient from this catastrophe.