

**Spontaneous Perinephric Haematoma In An Otherwise Healthy  
Adult Female**

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**ABSTRACT**

Spontaneous perinephric haematoma is a rare urologic entity. Tumours (both benign and malignant) are the most common causes. Several other causes have also been reported. However, in some patients, no apparent underlying etiology could be found and are described as having idiopathic spontaneous perinephric hematoma. We report a case of idiopathic spontaneous perinephric haematoma in a 38 year-old female who was successfully managed conservatively.

**Key words:** Haematoma, Perinephric, Spontaneous, Idiopathic.

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**Conflict of interest:** No

**Case report is Original:** YES

**Whether case report publishes any where?** NO

**INTRODUCTION**

Spontaneous perinephric hematoma is a rare urologic emergency and is usually caused by benign and malignant renal tumors (angiomyolipoma and renal cell carcinoma are more common), vasculopathies and inflammatory disorders [1, 2]. It has been reported in pregnancy associated with urolithiasis and cocaine abuse [3, 4]. However, in some patients, no apparent underlying etiology could be found and are described as having idiopathic spontaneous perinephric hematoma [1, 2].

In olden days, when no obvious etiology could be found, it was assumed that tumour is the etiology and hence patients ended up getting radical nephrectomy done [5, 6]. However, recently the etiologies have been studied extensively and successful conservative management of spontaneous perinephric haematoma has been reported [5]. We report a case of spontaneous perinephric haematoma in a 38 year-old female who was successfully managed conservatively.

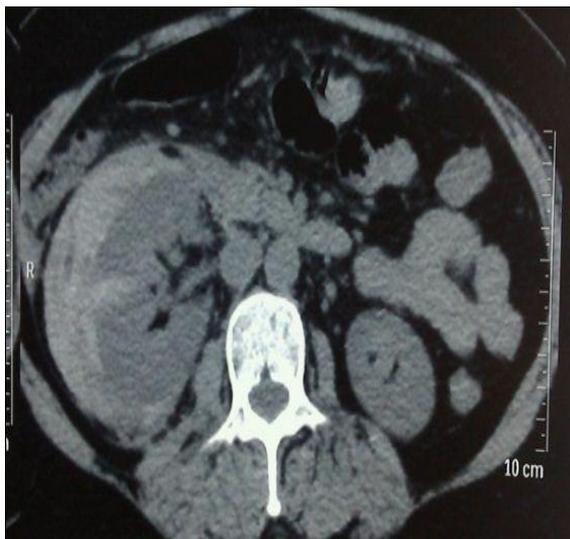
## **CASE REPORT**

A 38 year-old female was admitted with history of pain and tenderness in right flank region of 3 days duration. The pain was sudden in onset, continuous and had no associated symptoms. There was no history of fever with chills, trauma, or any urinary complaints. At admission, she was stable but her BP was 190/100mmHg. Per abdomen was soft but there was tenderness at right flank region. There was no palpable lump or organomegaly. Examination of the genitalia and hernia sites was normal.

Routine haematological investigations, total counts, renal function, liver function, coagulation profile and urine routine microscopy tests were normal. X-Ray KUB revealed no pathology or abnormal finding. Ultrasound abdomen revealed that both the kidneys were of normal size, shape and position. There was a cystic collection of size 11x6cm in the right perinephric space. No other pathology could be seen. CT KUB showed an illdefined poorly enhancing lesions in right kidney s/o? renal abscess with rupture or a perinephric hematoma (Figures 1a and 1b). There was no abnormal contrast uptake in the collection.

The patient was advised complete bed rest with analgesic medications and antibiotics. She was started on diuretics and ACE inhibitors for the control of hypertension. Her symptoms decreased and she was discharged after a week in stable condition with advice to take complete bed rest. The perinephric haematoma was found to be resolved completely at the follow-up CT scan after 8 weeks (Figure 2). At a follow-up after 1 year, she is asymptomatic and her blood pressure is normal without any anti-hypertensive drug.

**Figures 1a and 1b: CT KUB showing an illdefined poorly enhancing lesions in right kidney s/o? renal abscess with rupture or a perinephric hematoma.**



**Figure 2: Follow-up CT scan showing the completely resolved perinephric haematoma.**



## **DISCUSSION**

Spontaneous perinephric hematoma was first described by Bonet in 1679 [5, 7]. In 1856, Wunderlich described a syndrome of spontaneous subcapsular renal haemorrhage with dissection of blood into the subcapsular and/or perinephric space as a rare, life-threatening condition usually caused by renal tumours, vascular disorder, pyelonephritis or pre-eclampsia [4, 8].

The presentation of this Wunderlich syndrome can be varied and depends on the degree and the duration of the haemorrhage [5, 9]. Patients may present with acute flank pain, tenderness and symptoms of internal bleeding (the so called Lenk's triad), or even with acute abdominal emergencies such as acute appendicitis or perforated viscus or even as dissecting aneurysm [5]. Patients may also present with nausea, vomiting, fever, anemia, renal failure, and hypotension [9]. This condition can be fatal if not appropriately identified and promptly treated [9]. Perinephric hematoma of long duration can lead to hypertension and deterioration of the renal function because of compression of the renal parenchyma, a condition which has been termed as the page kidney [9].

The diagnosis of this condition is challenging and it might get misdiagnosed as a renal tumour or an abscess [5]. Ultrasound and CT scan are the diagnostic tools [5]. CT scan helps in identifying the cause of the haematoma and is more sensitive and specific than USG [5]. The condition of the contralateral kidney can also be judged on these scans [5]. Magnetic resonance imaging (MRI) can also be used as an alternative to CT scan in selected cases to identify small tumours [5]

The role of angiography in diagnosing the underlying cause has been stressed in various studies in literature when radiology is not able to reveal the cause [5, 10]. Surgical exploration and biopsy was also recommended in olden days in order to identify a cause [5].

The underlying causes of this condition have been extensively studied in literature. Most cases are due to tumours (both malignant and benign); rest are due to vascular diseases and infections and few cases are idiopathic [5]. Pregnancy, antiplatelet drug therapy and tuberous sclerosis have also been reported to be associated with this condition [5, 9].

There is controversy regarding the appropriate management of this condition. One school of thought suggests radical nephrectomy when no apparent cause is diagnosed on radiology because of higher incidence of small renal tumours [5, 6]. Second school of thought suggests surgery only in patients who have nonfatty lesions other than the haematoma on radiological imaging [5]. It is recommended that follow-up CT scans should be performed every three months till the haematoma resolves [5, 6].

### **CONCLUSION**

Spontaneous idiopathic perinephric haematoma is a rare urologic emergency with no apparent underlying cause. The management is controversial; however, it can be conservatively managed by regular follow-up CT scans till the haematoma resolves.

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