

Retroperitoneal Haematoma due to Spontaneous Rupture and Haemorrhage of Adrenal Cyst Presenting with Grey Turner's Sign

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Abstract

Spontaneous retroperitoneal haemorrhage is a rare entity and a potentially life-threatening condition. A 41-year-old woman presented to our emergency department with left flank pain and dysuria. Her physical examination disclosed left abdominal and costovertebral angle tenderness, left flank ecchymosis (Grey Turner sign). Abdominal computerised tomography revealed spontaneous retroperitoneal haemorrhage. She was discharged after 10 days with recommendation of urology follow-up.

Keywords: Spontaneous, Retroperitoneal, Haemorrhage.

Introduction

The term spontaneous retroperitoneal haemorrhage (SRH) defines the rare occurrence of retroperitoneal bleeding without any identifiable trauma or iatrogenic vascular injury. It is a potentially lethal condition that is usually difficult to diagnose.¹ Severity and time from onset of bleeding affect clinical signs and symptoms that can include a wide array of scenarios from mild flank and/or abdominal pain to cardiovascular shock.²

We present a patient having SRH who displayed Grey-Turner's sign, a sign that should make a physician consider the possibility of retroperitoneal haemorrhage.

Case Report

A 41-year-old woman presented to our emergency department (ED) with left flank pain and dysuria in March 2013. Her history revealed that she visited ED of another hospital two days ago with these symptoms and had been diagnosed with urinary tract infection (UTI), a non-steroidal-anti-inflammatory drug (NSAID) with an antibiotic had been prescribed. She was discharged, but her symptoms continued and she presented to our ED. She had no trauma, renal disease or coagulation disorder and no any use of drugs.

On admission, her blood pressure (BP) was 130/80mmHg,

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Figure-1: Grey Turner sign on left costovertebral region.



Figure-2: Abdominal computed tomography showing left retroperitoneal hematoma extending from suprarenal, anterior pararenal, perirenal and posterior pararenal region to pelvic inlet.

heart rate (HR) was 115/dk and body temperature was 36.7°C. Her physical examination disclosed left abdominal and costovertebral angle tenderness, left flank ecchymosis (Grey-Turner sign) of 3*3cm diameter (Figure-1). Examination of other organ systems revealed no pathology. Laboratory findings were: haemoglobin 9.6 g/dL, haematocrit 29.1%, platelet 224x10³/μl, activated partial thromboplastin time (aPTT) 23.2sec, prothrombin

time (PT) 14.4sec, international normalised ratio (INR) 1.12. Urine analysis showed leucocyte 6/hpf, erythrocyte 14p/hpf and bilirubin was ≥ 6 . Microscopic haematuria in the urine and left flank ecchymosis on her physical examination suggested a retroperitoneal haemorrhage and we decided to perform an abdominal computerised tomography (CT) scan with contrast and it confirmed a left retroperitoneal haematoma extending from suprarenal, anterior pararenal, perirenal and posterior pararenal region to pelvic inlet (Figure-2). The patient was first made to consult the urology department and was hospitalised by them. A CT angiography was performed by interventional radiology, but no source of bleeding was determined. Because of the left adrenal mass detected on the second abdominal CT, an endocrinology consultation was requested and measurement of 24-hour urinary catecholamines and blood cortisol level in the morning at 8am was planned. She was discharged after 10 days with recommendation of urology follow-up.

Discussion

The primary causes of SRH are a ruptured renal or adrenal mass, most commonly a tumour. Among the latter, angiomyolipoma (AML) is the most common benign lesion and renal cell carcinoma (RCC) is the most common malignancy. Apart from tumoural lesions, vascular diseases and anticoagulation therapy can also lead to SRH.^{2,3}

SRH usually manifests itself with Lenk's triad that consists of acute-onset flank pain, symptoms associated with internal bleeding, and tenderness in upper and lower abdominal quadrants or bilateral costovertebral angles upon palpation. In addition, the so-called Grey-Turner's sign characterised by bruising in bilateral flank regions, as observed in our patient, is usually indicative of retroperitoneal bleeding. However, some other conditions, including acute pancreatitis, ectopic pregnancy, perforated duodenal ulcer, portal hypertension, or splenic rupture have also been reported to exhibit this sign.^{4,5}

Diagnosing retroperitoneal haemorrhage may be challenging in that some patients are free of specific signs

and symptoms or the presentation mimics other conditions in some others. Therefore, ED physicians may become confused and the diagnosis delayed, leading to considerable morbidity and mortality.⁶

Screening for SRH may be done with ultrasonography, CT, or magnetic resonance imaging (MRI). In ED practice, CT is the imaging modality of choice for SRH, particularly for determining its location, size, and possible mechanism of development.^{5,7}

Treatment approach to SRH consists of fluid resuscitation for the restoration of intravascular volume. Packed red blood cells (PRBCs), fresh frozen plasma, units of platelets, and colloid solutions are typically used for this indication. Surgical intervention is needed in haemodynamically unstable patients.⁵

Conclusion

Urgent diagnostic and therapeutic steps should be taken in patients with SRH since it is a potentially disastrous process. ED physicians should be well aware of the diverse life-threatening aetiologies in cases with genitourinary symptoms.

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