



# Rectus Sheath Hematoma: A Case Report



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## Abstract

Rectus sheath hematoma is accumulation of blood in the sheath of rectus abdominis muscle due to disruption of epigastric vessels or rectus muscle. The indications for admission to the hospital are determined by the degree of hemodynamic impairment, the status of coagulation parameters, and the hematoma prevalence in imaging modalities (abdominal CT). Management of coagulopathy, transfusion of blood and plasma have a major role of the treatment of the patients. We present a case of spontaneous rectus sheath hematoma of 73 years old woman using oral anticoagulant agent (warfarin)

## Introduction

Rectus sheath hematoma is one of the cause of acute abdomen pain due to disruption of epigastric vessels or rectus muscle. This condition may lead inability to come mind easily because of the rare cause of acute abdomen pain. But it should be in mind with patients who have usage of anticoagulant therapy and bleeding disorders. The treatment of the patient varies depending on the type of rectus sheath hematoma [1]. Rectus sheath hematomas that are due to bleeding disorders and not required surgical operation limits themselves with management of the coagulopathy, bleeding disorders and fluid resuscitation and bed rest [2]. However, acute inflammatory abdominal pain and intra abdominal tumors should be in mind in differential diagnosis.

## Case Report

The 73-year-old woman was admitted to the emergency department with sudden onset of nausea, vomiting and abdominal pain for 3 days. The warfarin treatment of the patient was irregular. At admission to emergency department, the general condition of the patient was medium and consciousness was open and conjunctiva was pale. The arterial blood pressure was 90/60mmHg, pulse 126/min. She had abdominal tenderness at lower left quadrant of the abdomen and a well-shaped mass was palpated. Electrocardiogram has shown atrial fibrillation. Laboratory findings were white blood cell: 10100, Hematocrit 25.7% (35-45), hemoglobin 8.3gr/dl(12-16).

Activated partial thromboplastin time was 81 seconds (22-35). Prothrombin time was 81.9 seconds (11-15,5) and The

International Normalized Ratio (INR) was 11.11 (0,8-1,2). Chest x-ray graphy has shown mild cardiomegaly. Ultrasonography has shown a cystic mass in lower left quadrant approximately 77x217mm diameter. The computerized tomography of the abdomen (oral and IV contrast) has shown the lesion with heterogeneous contrast involvement the septations measuring transverse diameter 19cm and AP diameter 11cm in the left half of the abdomen extending from the middle quadrant to the lower quadrant (Figures 1-3). The treatment of the patient has begun with intravenous fluid resuscitation and erythrocyte suspension and fresh frozen plasma and intravenous vitamin K. Cardiology consultation was done. The patient was followed up for 12 days in intensive care unit. A total of 8 units of erythrocytes and 10 units of fresh frozen plasma transfusions were made. The patient's abdominal pain improved. Hemoglobin value increased to 11.44gr/dL and the INR value decreased to 1.77. The patient was discharged 14 days later.



Figure 1

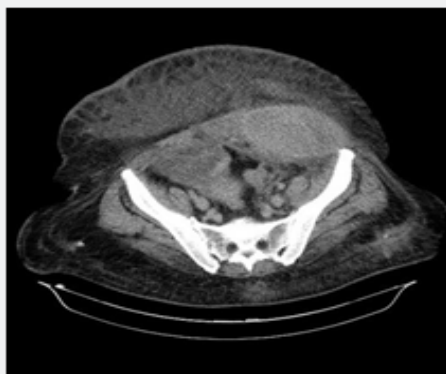


Figure 2

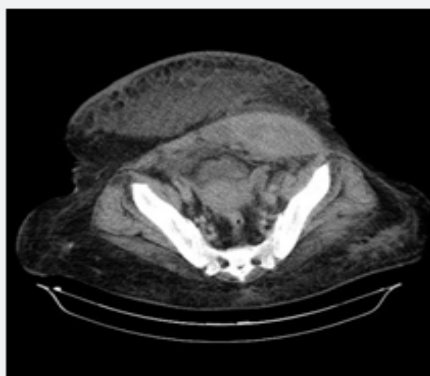


Figure 3

## Discussion

Rectus sheath hematoma is a rare cause of acute abdominal pain, which is often self-limited by conservative treatment. It has mostly benign character but sometimes life-threatening with rapid progression. Clinical significance of rectus sheath hematoma is in differential diagnosis of acute inflammatory abdominal pain, intra-abdominal tumors [3]. Rupture of the superior and inferior epigastric veins along the posterior border of the rectus sheath or rupture of rectus muscle can cause of rectus sheath hematoma [4]. It is more common in the 6th decade and in women about 2 times more frequently. The mortality of rectus sheath hematoma is shown between 1.6 and 25% [5,6].

It is difficult to diagnose because of that is rare and has no specific findings and has not been kept abdominal wall pathology in mind [7]. Most of the rectus sheath hematomas are secondary bleeding to the use of anticoagulants [8]. The most common cause of non-trauma is severe cough due to lung diseases [9]. Blunt trauma, old age, previous abdominal surgery and pregnancy are other risk factors [10]. Sensitivity of ultrasonography used as the first diagnostic tool in rectus sheath hematoma is 80-90%. Ultrasonography usually gives accurate information about the localization and size of the mass [11,12]. Computed tomography is the gold standard for rectus sheath hematoma diagnosis.

It is used to exclude non-diagnostic abdominal ultrasonography findings and other intra-abdominal pathologies and to classify the rectus sheath hematoma. Sensitivity and specificity is

100% [2,13]. Hematomas that can not be controlled and follow a progressive course may require surgical intervention [14]. In rectus sheath hematomas, recurrence is usually absent and does not lead to long-term sequelae. Mortality and morbidity is higher in patients taking anticoagulant treatments, elderly, big size hematomas and co-morbid disease [15]. Rapid correction of coagulopathy, blood and fresh frozen plasma transfusions play an important role in the treatment of patients.

## Conclusion

Rectus sheath hematomas should be considered in differential diagnosis in acute abdominal pain patients who have received anticoagulant treatment and have low haematocrit values. Management of coagulopathy, transfusion of blood and plasma have a major role of the treatment of the patients after the differential diagnosis is made with abdominal computed tomography.

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