

## **RECTUS SHEATH HEMATOMA AFTER PHYSICAL EXERCISE. CASE REPORT**

### **Fiziksel aktiviteyi takiben gelişen rektus kılıf hematoma olgusu.**

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#### **ABSTRACT**

Rectus sheath hematoma is an uncommon clinical pathology. It is usually presented with abdominal pain and palpable mass. It can mimic acute abdomen causing negative laparotomies. Heavy physical exercise may cause rectus sheath hematoma. Anticoagulation, laparoscopy, abdominal trauma are other well-known etiological factors. Conservative treatment is successful in most of the patients. We report a patient with rectus sheath hematoma after exercise.

**Key words:** Rectus sheath, hematoma, physical exercise.

#### **ÖZET**

Rektus kılıf hematoma çok sık görülmeyen bir klinik patolojidir. Genellikle abdominal ağrı ve ele gelen kitle ile karakterizedir. Bazen akut batın durumunu taklit edip negatif laparotomilere neden olmaktadır. Antikoagulan kullanımı, laparoskopik cerrahi, abdominal travma rektus kılıf hematomunun iyi bilinen etiyolojik nedenlerindedir. Ağır fiziksel egzersiz rektus kılıf hematomuna sebep olabilir. Çoğu rektus kılıf hematomunda konservatif tedavi başarıyla uygulanmaktadır. Bu olgu sunumumuzda fiziksel egzersiz sonrası rektus kılıf hematoma olan bir hastayı değerlendirdik.

**Anahtar kelimeler:** Rektus kılıfı, hematom ve fiziksel egzersiz.

#### **INTRODUCTION**

Rectus sheath hematoma (RSH) is a relatively rare but well recognised clinical entity. The most common causes resulting in RSH are abdominal trauma, anticoagulation therapy, laparoscopy, heavy physical exercise and pregnancy (1). It is usually presented with abdominal pain, palpable mass in the lower quadrants of the abdominal wall. It may mimic acute abdomen and causes unnecessary laparotomies. Stretching the rectus abdominis muscle during exercise may result in RSH. In this report, we present an old patient with rectus sheath hematoma after physical exercise.

#### **Case**

A 45 year old female was admitted with a history of pain in the left lower abdominal quadrant. She did not complain of nausea, vomiting or

any trauma. There was a huge echymotic region in the abdomen. She gave a history of heavy exercise in last one week and taking aspirin. On physical examination, there was a palpable mass in the abdomen with tenderness. The pain was exaggerated on elevation of patient's head (Positive Carnett's test). Mean arterial pressure was 150/90 mm/Hg and pulse rate was 72/min. Complete blood cell count was unremarkable. The other haematological investigations were within normal limits.

An abdominal ultrasound scan revealed a 4x4 cm mass in the left rectus sheath (Figure 1). The patient was treated conservatively. Aspirin was stopped and topical analgesics were used. The echymosis in the abdomen is regressed and the resolution of the hematoma was detected after 2 weeks.



**Figure 1:** Ultrasonographic appearance of rectus sheath hematoma.

### DISCUSSION

Rupture of the superior or inferior epigastric vessels or a tear of the rectus abdominis muscle results in blood accumulation and hematoma formation (2). It is usually detected in lower abdominal wall and more commonly seen in women. There are usually predisposing factors for RSH occurrence but it can be seen spontaneously (1,2). Physical exercise may cause RSH. Sharma H reported two RSH cases after yoga exercise (3). Forced abdominal muscle contractions cause blood vessel ruptures. Although most of the time RSH is a self-limiting condition it may result in serious hypovolemia and shock.

The main signs and symptoms are abdominal pain, tender mass, ecchymosis, fever, nausea and vomiting (4,5). Our patient was presented with a huge echymotic region in the anterior abdominal wall. The signs of peritoneal irritation may be detected in some patients and causes misdiagnosis with negative laparotomies. Carnett's test is useful in differentiating RSH from intraabdominal pathologies (6). While the patient is in supine position, maximum tender point is determined. Then the patient is asked to get sitting position. If the tenderness is increasing with this maneuver, the test is positive and supports the abdominal wall pathology.

Medical history and physical examination are important in diagnosis. Abdominal ultrasonography (USG) and computed tomography (CT) are most beneficial radiological techniques. USG is noninvasive and cost effective with higher sensitivity rates (5).

According to the stage of the disease sonolucent or sonodense lesion is detected in the abdominal wall. CT scan is preferred diagnostic modality for most of the patients. It can differentiate intraperitoneal lesions from extraperitoneal lesions. It demonstrates abdominal wall with detail and classification of the hematoma can be done accurately. Magnetic resonance imaging of the abdomen can also be performed but it is an expensive technique when compared to ultrasonography and CT.

Conservative management of RSH is favoured in stable patients (7,8). Managing predisposing factors, analgesia, bed rest, compression of the hematoma are mainstay of the treatment. Most of the hematomas resolve spontaneously (9). Hemodynamic instability, further deterioration mandates surgical therapy.

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