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Spontaneous splenic hematoma due to anticoagulant treatment: A case report

Antikoagülan tedaviye bağlı spontan splenik hematom: Olgu sunumu

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Abstract
Splenic injury is mostly associated with trauma, but spontaneous splenic injury has been associated in various systemic diseases. A 46-year-old male patient was admitted to the emergency department with epigastric pain and tenderness in the left upper quadrant. There was no history of trauma, but he was using oral anticoagulant treatment. Contrast-enhanced computed tomography imaging revealed a subcapsular hematoma of the spleen. Oral anticoagulation was antagonized with vitamin K and the patient was discharged in good condition after 3 days of clinical observation. Non-traumatic splenic rupture is a rare complication of oral anticoagulation.
Keywords: Spleen, Oral anticoagulant, Non-traumatic splenic hematoma

Öz
Splenik yaralanma normalde travma ile ilişkilidir, ancak çeşitli sistemik hastalıklarda spontan splenik rüptürü tanımlanmıştır. 46 yaşında erkek hasta acil servise epigastrik ağrı ve sol üst kadranda hassasiyet ile başvurdu. Travma öyküsü yoktu, oral antikoagulan kullanımı mevcuttu. Kontrastlı bilgisayarlı tomografi görüntülemesi dalağın büyük bir subkapsüler hematomunu ortaya çıkardı. Oral antikoagülasyon K vitamini ile antagonize edildi ve hasta 3 günlük klinik gözlemden sonra iyi durumda taburcu edildi. Travmatik olmayan splenik rüptür, oral antikoagülasyonun nadir görülen bir komplikasyonudur.
Anahtar kelimeler: Dalak, Oral antikoagulan, Non-travmatik dalak hematomu

Introduction

The spleen is usually a ruptured organ after blunt abdominal trauma. Unlike traumatic splenic rupture, spontaneous (atraumatic) splenic rupture is a rare and life-threatening condition. Little is known about the characteristics, incidence and etiology of patients. The etiology of atraumatic spleen rupture is examined in six different categories. These are infectious, neoplastic, inflammatory, congenital or structural, iatrogenic and finally idiopathic [1,2]. In this paper, a patient with spontaneous splenic rupture who admitted to the emergency department with abdominal pain was presented and discussed in the light of current literature.

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Case presentation

A 46-year-old male patient presented to our emergency department with abdominal pain. He had a history of mitral valve replacement 15 years ago and coumadin use afterwards. At the initial presentation, hematocrit was 25.7% and hemoglobin was 8.5 g/dl. INR value was 7.1. Abdominal ultrasound and abdominal computed tomography examinations revealed a lesion compatible with hematoma extending approximately 6 cm from the upper pole to the middle pole (Figure 1). The patient was diagnosed with non-traumatic subcapsular spleen hematoma. Anticoagulant treatment was discontinued and vitamin K was administered. He was followed up with daily INR and abdominal examination. In the follow-up, when abdominal findings were normal and INR value decreased to 2.5, he was discharged with low molecular weight heparin treatment as anticoagulant for 10 days to prevent the risk of thromboembolism. Anticoagulant therapy was continued with coumadin according to INR results after heparin treatment. One month later, control abdominal tomography showed regression in the hematoma.

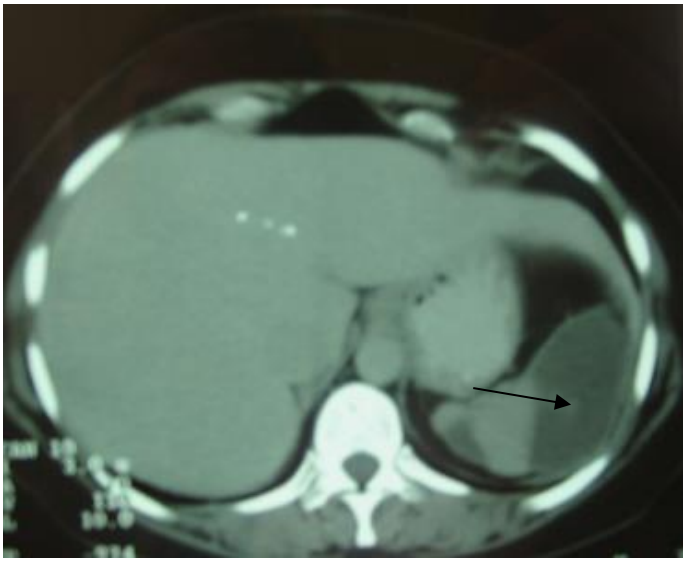

Figure 1: Abdominal computed tomography of the patient showing the hematoma in the spleen (arrow)

Discussion

Subcapsular hematoma of the spleen is one of the rare complications of anticoagulant therapy. There may be no other complaint in the clinic except for ambiguous abdominal pain. Anticoagulants, especially coumadin sodium, are used in many fields of medicine. Bleeding complications such as intracranial, intraabdominal, intramural intestinal, rectus muscle sheath hematoma have been reported in the literature after anticoagulant use [3].

The most common cause of splenic rupture is trauma. The term atraumatic or spontaneous spleen rupture was first described by Orloff and Peskin in 1958 and identified four criteria for diagnosis. These include: absence of a history of trauma, absence of perisplenic adhesions to support previous traumas, absence of disease affecting the spleen, and microscopic and macroscopically natural spleen [2].

In our country, Gedik et al. [4] reported a series of seven cases (6 males, 1 female), and the most common cause of the etiology was malaria with four cases. Özsoy et al. [5] reported two cases of malaria. Malaria infection is known to be the most common etiology in tropical countries [6]. Malaria infections in Turkey, although greatly reduced in some endemic areas (south and southeast) are still visible. In patients living or traveling to these regions, if there are complaints of tremor and fever, it should be remembered in the differential diagnosis [7]. Patients with spontaneous splenic rupture show a similar clinical condition to those with traumatic splenic rupture. Abdominal pain, nausea, vomiting, dizziness and syncope symptoms may be seen in the left upper quadrant before the signs of shock [8-10]. In our case, abdominal pain was admitted to the emergency department with complaints of abdominal pain. Spontaneous splenic rupture cases often present with signs of hemorrhagic shock. Even in these cases, mortality was found to be high [4]. Total splenectomy was reported as 84.1%, organ-sparing surgery 1.2% and conservative approach 14.7% rates in the study of Renzulli et al. [3]. Other therapies other than total splenectomy are often recommended for non-neoplastic causes. In our case, lack of hemorrhagic shock findings and early surgical intervention due to rapid diagnosis was lifesaving.

Conclusion

Spontaneous splenic rupture is a rare patient group which is a rare condition for emergency physicians and requires high suspicion in diagnosis. Although there is no history of trauma, spleen rupture may occur in patients. Rapid diagnosis, aggressive resuscitation and early surgery when necessary are very important.

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