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Olgu Sunumu / Case Report

Patient With Undiagnosed Chronic Portal Vein Thrombosis Presented As Intestinal Obstruction A Case Report

İntestinal Obstruksiyon Bulguları ile Başvuran Hastada Tanı Almamış Kronik Portal Ven Trombüsü: Olgu Sunumu

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Abstract

Portal vein thrombosis (PVT) is a rare condition in general population whereas is commonly seen in cirrhotic patients. Patients can be presented with portal hypertension symptoms however this clinical situation can be asymptomatic for years. Blood tests and radiologic tests are helpful on the way of diagnosis and anticoagulants are usually used for the treatment.

A 59 year-old male with no comorbid diseases and the history of previous abdominal surgery, applied to emergency clinic with symptoms of intestinal obstruction and hospitalized with the presumptive diagnosis of ileus. According to labaratory and radiologic tests, patient was diagnosed with chronic portal vein thrombosis and started on anticoagulant treatment.

Although chronic portal vein thrombosis is an uncommon pathology in general population, we should consider this pathology in patients presented with symptoms of intestinal obstruction.

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Keywords: Chronic portal vein thrombosis, ileus, pathology

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Portal ven trombüsü sirozlu hastalarda sık görülen bir patoloji olmakla beraber genel populasyonda nadir görülen bir bulgudur. Bu klinik bulgu yıllarca asemptomatik seyredebileceği gibi hastalar portal hipertansiyon semptomları ile de başvurabilmektedir. Kan testleri ve radyolojik testler tanıda yardımcı olmakla beraber tedavide sıklıkla antikoagulanlar kullanılmaktadır.

59 yaşında erkek hasta bilinen kronik hastalığı ve geçirilmiş abdominal cerrahi öyküsü olmayıp acil servise intestinal obstruksiyon bulguları ile başvurmuş ve ileus ön tanısı ile izlem amacıyla hospitalize edilmiştir. Laboratuar testleri ve radyolojik testler doğrultusunda hastaya kronik portal ven trombusü tanısı konmuş olup hastaya antikoagulan tedavi başlanmıştır.

Her ne kadar kronik portal ven trombusü genel populasyonda nadir görülen bir hastalık olsa da intestinal obstruksiyon semptomları ile başvuran hastalarda akılda bulundurulması gereken bir patolojidir.

Anahtar Kelimeler: Kronik portal ven trombüsü, ileus, patoloji

INTRODUCTION

Portal vein thrombosis (PVT) is defined as the complete or partial obstruction of blood flow in portal vein due to the presence of a thrombus in the vessel lumen (1). PVT is a rare condition in general population whereas its prevelance is found to be between 4.4-15% in cirrhotic patients (2). Although several ethiological factors are identified according to their systemic or local origins, more than one factor is often present (Table 1-2) (3,4).

PVT can be completely asymptomatic or patients can apply with the symptoms such as abdominal pain, diarrhea, rectal bleeding, abdominal distention, nausea and vomiting. PVT is usually diagnosed with computer tomography (CT) scans and anticoagulants such as low weight molecular heparine is used in treatment. Here we present a patient with bowel obstruction symptoms and diagnosed with chronic PVT.

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Tablo 1. Local risk factors for PVT (70%) (3)
Cancer
Any abdominal organ
Focal inflammatory lesions
Neonatal omphalitis, ombilical vein catheterization
Diverticulitis, appendicitis
Pancreatitis
Duodenal ulcer
Cholecystitis
Tuberculous lymphadenitis
Crohn's disease, ulcerative colitis
Cytomegalovirus hepatitis
Injury to the portal venous system
Splenectomy
Colectomy, gastrectomy
Cholecystectomy
Liver transplantation
Abdominal trauma
Surgical portosystemic shunting, TIPS
Iatrogenic (fine needle aspiration of abdominal masses etc.)
Cirrhosis
Preserved liver function with precipitating factors (splenectomy, surgical portosystemic shunting, TIPS dysfunction, thrombophilia)
Advanced disease in the absence of obvious precipitating factors

Tablo 2. Systemic risk factors for PVT (30%) (3)
Inherited
Factor V Leiden mutation
Factor II (prothrombin) mutation
Protein C deficiency
Protein S deficiency
Antithrombin deficiency
Acquired
Myeloproliferative disorder
Antiphospholipid syndrome
Paroxysmal nocturnal hemoglobinuria
Oral contraceptives
Pregnancy or puerperium
Hyperhomocysteinemia
Malignancy

CASE PRESENTATION

A 59 year-old male applied to our hospital with generalised abdominal pain, constipation, nausea and vomiting ongoing for one day. The patient did not have any comorbid diseases or the history of previous surgery. On physical examination, the patient had tenderness in all quadrants of abdomen whereas no defence or rebound was detected and patient's rectal examination was normal. Following the physical examination, labaratory tests including complete blood count (CBC), biochemical and radiologic tests were analysed. Labaratory results were found to be normal nevertheless air-fluid level image was demonstrated on upright films of abdominal x-ray. CT scans showed increased intestinal segment calibrations, air-fluid levels and thinned intestinal bowel walls, however there was no sign of mechanical obstruction seen in any intestinal segment (Figure 1).

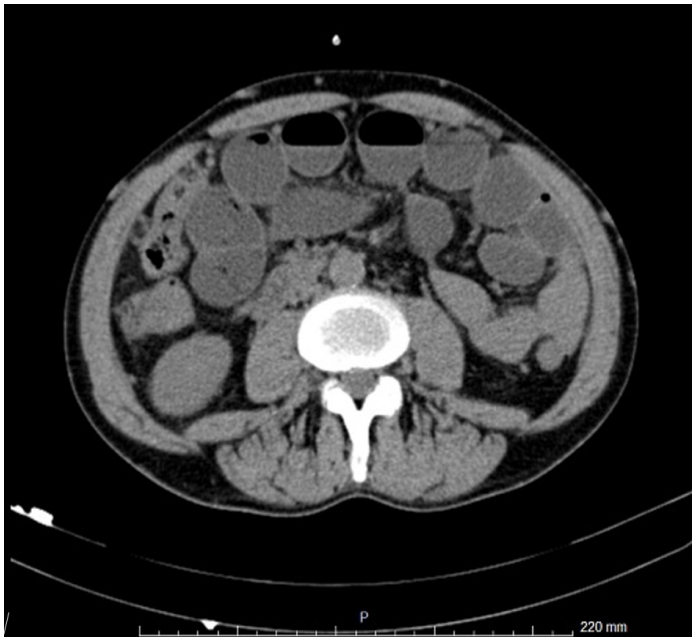

Figure 1. Increased intestinal segment calibrations, air-fluid levels, thinned intestinal bowel walls in CT scan

As a result of these tests patient was hospitalized with the diagnosis of ileus. Patient's oral intake was stopped and nasogastric tube was performed. Medical treatment was started with intravenouse hydration and low weight molecular heparine for prophylaxis of deep vein thrombosis. With suspicion of mesenteric ischemia, patient underwent abdominal CT angiography which demonstrated increased collateral vein formations and cavernous transformations at hilum of the liver. Partial occlusion of superior mesenteric vein was also detected whereas no evidence of ischemia in intestinal segments was found (Figure 2).

According to these imaging tests, patient was diagnosed with chronic portal vein thrombosis and continued on anticoagulant medication. Portal doppler ultrasound was performed which revealed no enlargement of liver and spleen, and no cirrhotic findings. Protein C, Protein S and

Factor V Leiden mutation tests were analyzed to define the etiology of chronic portal vein thrombosis and found to be normal. On patient's follow-up day 3, with regression of air-fluid levels on upright films of abdominal x-ray, oral intake was started with liquids and patient tolerated well. On follow-up day 5 the patient was discharged with anti-coagulant treatment.

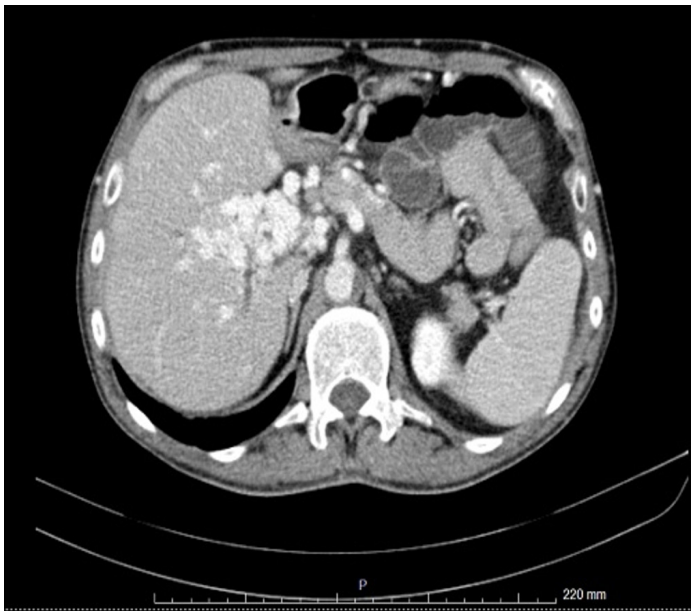

Figure 2. Cavernous transformations at hilum of the liver

DISCUSSION

Portal vein thrombosis (PVT) is a rare condition in general population and can be classified as acute or chronic. In chronic PVT although patients can be presented with portal hypertension and splenomegaly symptoms, they can be asymptomatic for years through the compensatory mechanisms. Portal hypertension can cause blood accumulation in intestinal walls therefore patients can present with intestinal obstruction symptoms. Increased liver function tests and pancytopenia can be seen in Labaratory tests. PVT is usually diagnosed with CT scans and gastroscopy should be performed to exclude the presence of esophageal varicosis. Anticoagulants are usually used in treatment and if thrombosis is recent and there is no underlying thrombophilic condition, anticoagulants should be administered for 3-6 months to enhance complete portal vein recanalization. On the other hand, only 30% of patients with chronic PVT can be treated with anticoagulants. In patients unresponded to treatment of anticoagulants, thrombolytic therapy can also be given. Invasive procedures such as transjugular intrahepatic portosystemic shunt, distal splenorenal shunt and Rex shunt can also be performed as the last option (3).

CONCLUSION

Portal vein thrombosis (PVT) is a rare condition in general population and can be asymptomatic for years through the compensatory mechanisms. Although ileus is often seen in emergency patients PVT can be missed on the way of diagnosis. Surgeons must me bare in mind this diagnosis for preventing the wrong treatment.

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