

Renal Artery Embolism in a Patient with Vague Abdominal Pain

Dear Editor,

Introduction

Thromboembolism is a well-known complication of mitral stenosis especially when it is associated with cardiac dysrhythmias. However, renal artery embolism is a disease that is easily missed due to its infrequent and non-specific presentations.¹

We reported a case of renal artery embolism in a patient with mitral stenosis who presented with vague abdominal pain and atrial flutter.

Case Report

A 53-year-old male patient presented to the emergency department because of abdominal pain and motor weakness of his left lower extremity. He had a history of mitral valve stenosis for 20 years and atrial flutter for 3 months. On admission, his vital signs were within normal limits. On physical examination, a low-pitched diastolic murmur was heard in the mitral area and mild abdominal tenderness was present in the left middle and lower quadrants. Neurological examination revealed mild left lower motor weakness. Twelve-lead electrocardiography showed atrial flutter. Because of mild left lower motor weakness and left middle and lower abdominal pain, a contrast-enhanced thoracic-abdominal computed tomography (CT) was performed. The results showed a decreased uptake of contrast in the left kidney (Fig. 1) and an acute embolism of the left renal artery. CT angiography confirmed a total occlusion of the left renal artery. CT angiography and digital subtraction angiography revealed thrombosis of the left common and external iliac arteries and the proximal 2 cm of the right common iliac artery. Transthoracic echocardiography demonstrated left atrial dilatation and a left atrial thrombus. The patient was administered heparin infusion (18 U/kg/hour, 1000 U/hour) after a loading dose (80 U/kg, 5000 U) and aspirin (100 mg/day). He was also treated with fibrinolytic therapy (streptokinase), but fibrinolysis was not successful. Twenty-four hours after admission the BUN was 15 mg/dL and creatinine was 1.6 mg/dL. A therapeutic INR was achieved with coumadin. The patient was discharged from the hospital on the third day of treatment.

Discussion

Early diagnosis of renal artery thromboembolism is difficult in the emergency department.^{1,2} For patients with renal infarction, the most common presenting symptom is flank or abdominal pain, as has been previously reported.^{1,3,4} However, as in our case, indistinct complaints such as

lower extremity motor weakness made us consider other neurological diseases as well as dissection of the aorta. Contrast enhanced CT showed a renal artery thrombosis. Contrast enhanced CT is one of the major diagnostic methods to detect renal artery thromboembolism in the emergency department.

For treatment, the therapeutic guidelines have not yet been accepted. However, early anticoagulant therapy is beneficial and thrombolytic therapy with streptokinase or tissue plasminogen activator is better if used in the early stage.¹ Although thrombolytic treatment was not successful in our case, early diagnosis and optimal thrombolytic treatment can sometimes restore renal function.²

Renal artery thromboembolism is a rare clinical condition.⁵ However, the emergency medicine specialist must consider renal artery thromboembolism in patients who present with abdominal or flank pain, especially if there is a history of cardiac valvular diseases or dysrhythmias.

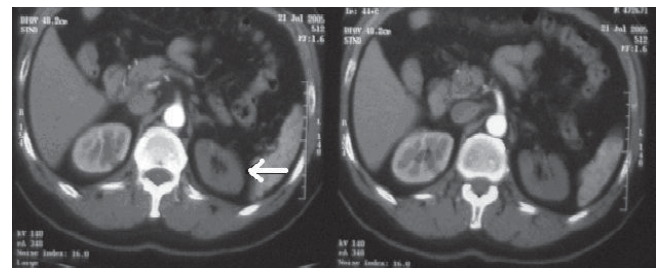


Fig. 1. Decreased contrast uptake of the left kidney in contrast-enhanced abdominal computed tomography.

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Okhan Akdur,^{1MD}, Polat Durukan,^{1MD}, Seda Ozkan,^{1MD}, Ibrahim Ikizceli,^{1MD}, Levent Avsarogullari,^{1MD}, Erdogan M Sozuer,^{1MD}

¹ Erciyes University Faculty of Medicine, Department of Emergency Medicine, Kayseri, Turkey

Address for Correspondence: Dr Okhan Akdur, Erciyes University Faculty of Medicine, Department of Emergency Medicine, Kayseri, Turkey.
Email: oakdur@hotmail.com