



Medical Imagery

## Acute Renal Infarction as an Extracardiac Manifestation of Left Atrial Myxoma

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ARTICLE INFO

Accepted 17 September 2021

A 61-year-old man presented to the emergency room with a sudden onset of left flank pain that had continued for 2 h. He had a medical history of hypertension. Blood examination results revealed no signs of anemia, leukocytosis, or thrombocytosis. Results of his renal function tests were as follows: blood urea nitrogen, 25 mg/dl (normal range, 8–21 mg/dl); creatinine, 1.7 mg/dl (normal range, 0.4–1.2 mg/dl), and estimated glomerular filtration rate (GFR) according to the Modification of Diet in Renal Disease (MDRD) equation, 41 mL/min/1.73 m<sup>2</sup>. The lactic dehydrogenase level was also normal at 175 IU/l (normal range, 98–192 IU/l). Electrocardiography revealed normal sinus rhythm. Contrast-enhanced computed tomography (CECT) revealed left main renal artery occlusion with renal infarction (Figure 1A). The presence of a large thrombus and the short distance from the renal artery orifice to the thrombus precluded the possibility of intra-arterial thromboembolytic therapy. The point-of-care ultrasonography at the emergency room detected a left atrial (LA) myxoma (Figure 1B, 1C). Anticoagulation therapy with 60 mg enoxaparin subcutaneously administered at Q12H was started immediately. The patient underwent surgical resection of LA mass and was proven to be myxoma afterwards. Left renal atrophy and creatinine level of 1.5 mg/dl (estimated GFR by MDRD: 47.4 mL/min/1.73 m<sup>2</sup>) were observed during follow-up.

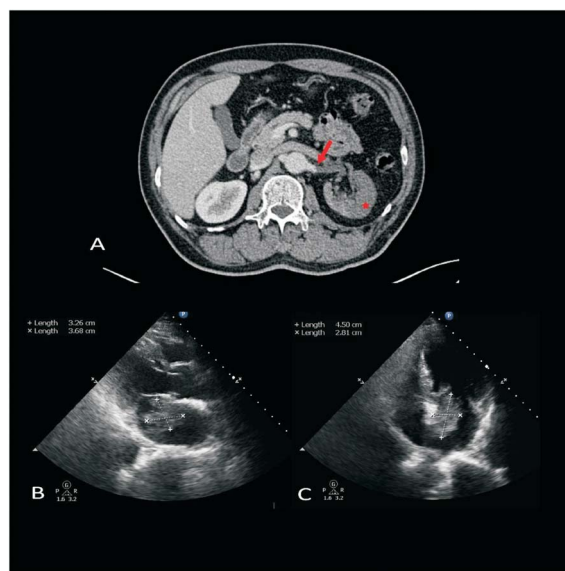
Renal infarction is a rare disease that could result from thromboembolic events or heart disease.<sup>1</sup> The diagnosis of renal infarction remains a challenge for clinicians. The ultrasound finding is ambiguous; however, it may demonstrate poor perfusion on color Doppler image. CECT is the gold standard for diagnosing renal infarction.<sup>2</sup> The occurrence of acute kidney injury depends on pre-existing renal disease, appearance of microscopic hematuria, and infarction scale.<sup>3,4</sup> Anticoagulation treatment should be started upon diagnosis of renal infarction as an attempt to restore renal perfusion. Cardiac myxoma within LA can be a potential source for distal emboli causing renal infarction, which can be identified by echocardiography.<sup>5</sup> In this case, LA myxoma should be managed by surgical resection to prevent further complications.<sup>5</sup>

### Declaration of any potential financial and non-financial conflicts of interest

None.

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**Figure 1.** (A) (Arrow) Contrast enhanced abdominal CT revealed occlusion at left main renal artery. (Asterisk) hypodense appearance of left kidney compatible with renal infarction. (B, C) Point-of-care ultrasound revealed a mass in left atrium.

### Disclosure of conflict of interest

The authors declare no competing interests.

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