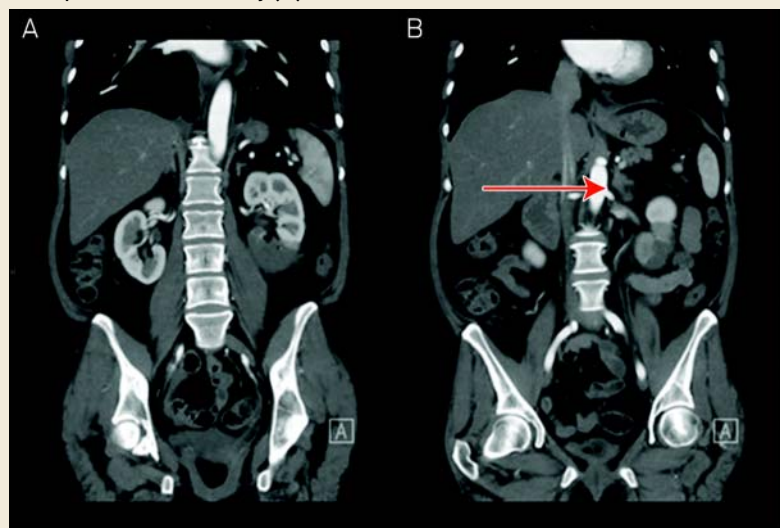

A case of spontaneous renal infarction secondary to an accessory renal artery thrombosis

TO THE EDITOR: A 43-year-old woman presented with sudden onset of severe left-sided abdominal pain and hypertension (blood pressure, 180/120 mmHg). She developed flash pulmonary oedema, which was

Coronal computed tomography images of the patient, showing a wedge-shaped renal infarction (A) and a thrombus in the accessory renal artery* supplying the lower pole of the left kidney (B)



* Arrow points to the origin of the artery.

confirmed on chest x-ray. Her urine microscopy results and creatinine levels were normal.

A computed tomography (CT) scan with contrast showed a thrombus in an accessory artery supplying the lower pole of the left kidney and a left renal infarction secondary to the vascular occlusion (Box).

Telemetry did not detect arrhythmia. Transoesophageal echocardiography did not show any evidence of a cardiac thrombus but did confirm normal left ventricular systolic and diastolic function. A screen was negative for autoimmune and inherited causes of thrombophilia.

Renal infarction is a rare cause of abdominal or flank pain. Presentation mimics that of nephrolithiasis or pyelonephritis, but there is no haematuria. Patients present with nausea and vomiting, abdominal or flank pain, hypertension, leukocytosis and a raised lactate dehydrogenase (LDH) level.¹⁻³ Our patient had a white cell count of $13.0 \times 10^9/L$ (reference interval [RI], $4-11 \times 10^9/L$) and an LDH level of 1227 U/L (RI, 170-230 U/L). CT urography is a common first-line investigation in this setting but may miss renal infarction. Therefore, the absence of haematuria should prompt further imaging.

Reported aetiologies of renal infarctions include vascular

abnormalities (atherosclerosis, fibromuscular dysplasia, vasculitis), hypercoagulable states and thromboembolism.^{1,2} Renal infarction has also been described with cocaine use and as a complication after procedures.⁴ There was no evidence of any of these causes in this patient.

A review of the literature found limited management suggestions based on small studies.⁴ Several small case series reported good outcomes with anticoagulation; however, most of the patients in these series had concurrent atrial fibrillation.⁴

This is the first reported case of an acute thrombosis in an accessory renal artery causing a renal infarction. In light of the known association between renal artery stenosis (RAS) and pulmonary oedema,⁵ we postulate that the flash oedema occurred as a consequence of the artery occlusion and acute hypertension. We could not exclude RAS without further imaging of the renal arteries; however, there was no evidence of RAS on the CT image.

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