Introduction

Acute renal infarction (ARI) is a rare cause of abdominal pain in adults. Available literature is primarily limited to case reports and case series. Most of these case reports involve unilateral renal infarction. We hereby present a case of a previously healthy man who was hospitalized initially with a unilateral renal infarction and subsequently developed infarction of the other kidney.

Case

The patient is a 56-year-old man without significant previous medical history who presented after experiencing sudden-onset left-sided lower abdominal pain. The pain was associated with nausea and two episodes of emesis. Initial vital signs were unremarkable. Physical examination revealed a soft, non-tender abdomen with a left renal bruit. Laboratory data did not show any abnormalities. Abdominal imaging with contrast-enhanced computed tomography (CT) revealed a wedge-shaped area of decreased enhancement of the left kidney consistent with an ARI. Further diagnostic testing, including a toxicology screen and a vasculitis and hypercoagulability work-up, was all negative.

Abdominal duplex ultrasound showed a tortuous dilated left renal artery and patent renal veins bilaterally. A transesophageal echocardiogram failed to identify any evidence of a thromboembolic source. The patient was empirically anticoagulated with heparin and coumadin. One week later, the patient returned with a recurrence of abdominal pain at the same location. He was found to have developed a right renal infarction despite adequate anticoagulation. Renal magnetic resonance angiogram showed a beaded appearance of the left renal artery concerning for fibromuscular dysplasia.

Conclusion

ARI is an uncommon cause of abdominal pain in adults. ARI is usually a consequence of a thromboembolic insult from a distant source. Associations with cocaine use, malignancies, as well as disorders like Marfan's syndrome have also been noted. Diagnosis is often achieved with contrast-enhanced CT imaging of the abdomen that is often obtained to search for other more common etiologies of abdominal pain. Treatment modalities include anticoagulation, thrombolysis, or open surgery. In conclusion, a comprehensive work-up with a concern for acute renal infarction should be considered when an obvious cause for abdominal pain cannot be elicited.

References