Renal Infarction in the Young Man

Eren and Koyuncu. Renal Infarction

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Received: 1 January 2019
Accepted: 20 May 2019

DOI: 10.4274/balkanmedj.galenos.2019.2019.1.73

Cite this article as:

A 43-year-old man presented to the emergency department with an hour-history of severe abdominal pain, particularly localized to the umbilical area and accompanied by cold sweating. His medical history was unremarkable. On abdominal examination, no defense or rebound tenderness were noted. Vital signs, systemic and laboratory findings were normal except for elevated levels of AST (120 U/L; reference range <46 U/L) and LDH (977 U/L; reference range 135-225 U/L), signs of damage to the body's tissues. Abdominal ultrasonography was normal. Doppler ultrasonography showed no flow in the left inferior segmental renal artery. Abdominal computed tomography with contrast revealed a hypodense area in the left kidney, involving the anterolateral part of the upper and middle zones and the whole lower pole (Fig. 1). Selective renal angiography performed to rule out pathologies required interventions (stenosis of a large artery, dissection) showed an 80% stenosis in the middle of the inferior segmental renal artery (Fig. 2). A diagnosis of renal infarction was made and treatment with enoxaparin (2 x 0.6 ml/day) was initiated. Within the following 24 hours, the patient’s pain resolved, but the levels of AST and LDH continued to increase. Clopidogrel (75 mg/day) and aspirin (100 mg/day) were added to the treatment. Elevated enzyme levels began to decrease after 48 hours of presentation, and renal functions remained normal. Further investigation for ethiology of the infarction (presence of malignancy, hematological problems) was normal; thus we decided this case as idiopathic. Although renal function remains normal ⁹⁹mTc-dimercaptosuccinic acid renal scintigraphy performed one month later displayed cortical defects in the upper and lower lateral poles of the left kidney (Fig. 3). Written informed consent was obtained from the patient.

References
FIG. 1. Abdominal computed tomography with contrast showed a hypodense area in the left kidney, involving the anterolateral part of the upper and middle zones and the whole lower pole.

FIG. 2. Selective renal angiography showed an 80% stenosis in the middle of the inferior segmental renal artery.
FIG. 3. 99mTc-dimercaptosuccinic acid renal scintigraphy revealed cortical defects in the upper and lower lateral poles of the left kidney (anterior position).