Diarrhea syndrome and renal cell carcinoma

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CASE REPORT

A 36-year-old male with diarrhea and loss of weight underwent testing for blood chemistry, TSH, immunological parameters, celiac profile, and parasites in feces. All results were normal. C-reactive protein was elevated. Colonoscopy up to the cecum was normal, and a small-bowel follow-through with barium showed no alterations.

Abdominal echography showed a left renal upper-pole mass about 4 cm in diameter, round, and isoechoic with hyperechoic areas inside consistent with necrotic areas (Fig. 1).

CTA confirmed this lesion as 4.3 cm in size, hypodense, confined to the kidney and not affecting the perirenal fat or vascular pedicle. The patient was sent to the Urology Department and underwent a left laparoscopic nephrectomy -- a mass could be macroscopically seen in a pole, with a complete Gerota’s capsule and no significant macroscopic changes. Cuts allowed identifying a rounded, well-delimited lesion 4.8 x 4.5 cm in size in that pole, with a yellowish-brownish parenchyma with small millimetric cavities that was friable at the cut close to the renal capsule. The diagnosis was of papillary renal cell carcinoma, type 2 according to Delahunt and Eble (Fig. 2). The patient is now asymptomatic, and diarrhea is no longer present after surgery.

COMMENTS

Papillary renal cell carcinoma is a malignant tumor deriving from the renal tubule epithelium with a prevalence of 10-15%; it appears to be more frequent in males. It is generally a well-delimited, globular, brown lesion. It has an eccentric location in the cortex. There are two types of papillary renal cell carcinoma, which Delahunt and Eble classified as type 1 and type 2 (1). Type 2 shows very large cells with abundant eosinophilic cytoplasm. The nucleus has a pseudostratified pattern and is large, spherical, with a prominent nucleolus.
Renal cell carcinoma of the papillary type has a characteristic pattern of genetic abnormalities based on chromosomal gains. Most common is trisomy or tetrasomy for 7 and 17. No genetic abnormality could be found in this patient.

Renal cell carcinoma may present with many paraneoplastic symptoms; these develop in 40% of cases of renal cell carcinoma during the course of disease. These symptoms are important because they can herald disease onset or recurrence.

The presence of paraneoplastic symptoms does not necessarily imply a poor prognosis or metastatic disease (2). A constitutional syndrome is the paraneoplastic manifestation for one third of patients: fever, weight loss, and nausea. Symptoms making up the constitutional profile of renal cell carcinoma are based on cytokines. Other cytokines such as IL-1, interferon, and prostaglandins have been listed as possible causes of the constitutional profile associated with renal cell carcinoma (3). Therefore, and according to various studies, an overproduction of prostaglandins by the tumor may underly the pathogenesis of some paraneoplastic manifestations, including diarrhea, blushing, fever, etc. (4).

REFERENCES