

Synchronous Gastric Metastasis of Renal Cell Carcinoma With Absence of Gastrointestinal Symptoms

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Abstract

Renal cell carcinoma (RCC) is a rare adult malignancy, and one-third of cases present with distant metastases at the time of diagnosis. Early gastric metastasis is exceedingly rare. We describe an adult male with synchronous gastric metastasis of RCC at the time of diagnosis in the absence of gastrointestinal symptoms. We report the fifth case of RCC with synchronous gastric metastasis and the only case with early presentation in the absence of gastrointestinal symptoms.

Introduction

Renal cell carcinoma (RCC) is a relatively rare adult malignancy, with approximately 36,000 annual cases. It can present in many ways, including hematuria, flank pain, a palpable mass, or left scrotal varicocele. However, more than 50% of patients are asymptomatic upon presentation, and more than one-third of all patients have distant metastases at the time of diagnosis. Although these metastases may occur in any organ system, the majority appear in the lung, soft tissue, bone, or liver. Metastases to the stomach are exceedingly rare, with only about 23 cases reported in the literature.¹⁻⁵

Case Report

A 62-year-old male with a history gastroesophageal reflux disease presented for an evaluation of testicular pain and was found to have a right-sided hydrocele. He underwent a repair for the hydrocele, which did not relieve his testicular pain. The patient underwent an abdominal and pelvic CT, revealing a 5.5-cm right renal mass (Figure 1) and a mass in the stomach (Figure 2). He was referred for an esophagogastroduodenoscopy (EGD) to evaluate the gastric mass. EGD revealed a 3-cm firm and friable mass in the fundus of the stomach (Figure 3). The histopathological specimen tested positive for clear cell neoplasm consistent with metastatic renal cell carcinoma (Figure 4).

The patient underwent a successful right partial nephrectomy and partial gastrectomy with negative resection margins. Gross surgical pathology from the stomach revealed a 2-cm broad-base polyp with yellowish appearance. Microscopic surgical pathology was consistent with metastatic RCC. The patient was last seen in the oncology clinic 8 months after surgery with no clinical or radiologic evidence of recurrent disease.

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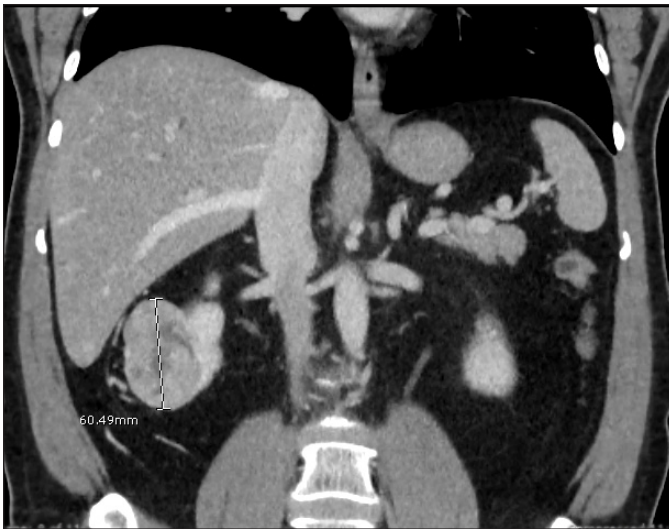


Figure 1. Abdominal and pelvic CT revealing a 5.5-cm right renal mass.

Discussion

There are many case reports of unusual metastases from RCC. A single institution study by Villarreal-Garza et al reported that 4 of 545 patients with RCC between 1987 and 2009 developed metastases to the stomach.⁶ According to their literature review, there have been 23 patients reported in total with metastatic RCC to the stomach.^{7,8} Pollheimer et al reported that, from an Austrian database of 2,082 RCC patients, 5 patients developed metastases to the stomach.⁵ Symptoms of those patients included upper gastrointestinal bleeding, iron deficiency anemia, hematemesis, and melena. Patients were treated with local endoscopic therapy using ablative argon-plasma laser coagulation and submucosal dissection. Four of the 5 patients died secondary to other widespread metastases within 2 years of their presentation.



Figure 2. Abdominal and pelvic CT revealing a mass in the stomach.



Figure 3. EGD revealing an approximately 3-cm firm and friable mass in the fundus of the stomach.

Of the reported cases of RCC spreading to the stomach, the majority represent a late manifestation of the disease when the malignancy has already become widely metastatic. RCC that metastasizes solely to the stomach at an early stage is exceedingly rare, and even rarer is the case of a synchronous metastasis of RCC to the stomach.⁵⁻⁷ Kim et al reported 4 cases of gastric metastases from RCC in which both lesions were found concurrently.³ However, all 4 patients presented with abdominal symptoms including pain, melena, and hematemesis.³

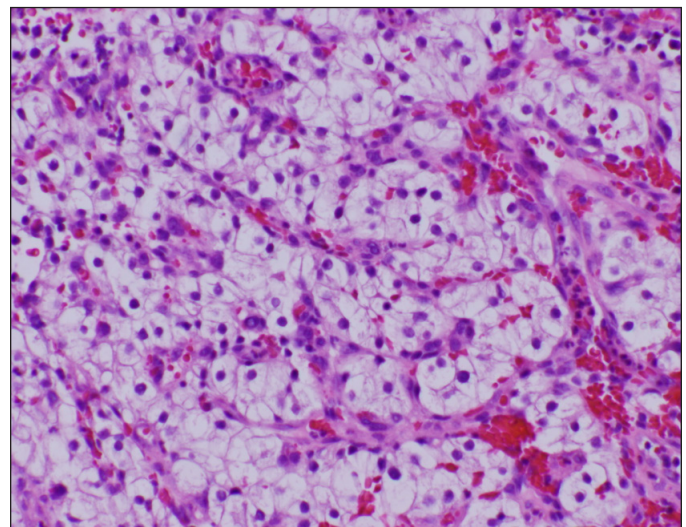


Figure 4. Histopathological specimen tested positive for clear cell neoplasm, consistent with metastatic renal cell carcinoma.

We present the case of a patient who was discovered to have a gastric mass concurrent with the discovery of a primary RCC. This patient did not present with any gastrointestinal symptoms, and the gastric metastasis was found incidentally on CT scan.

Disclosures

Author contributions: D. Greenwald and E. Aljahdli were the primary researchers and authors. D. Nepomnayshy was the secondary surgical researcher. L. Gallagher was the secondary pathology researcher. M. Sterling is the article guarantor.

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