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A Case of Small Bowel Obstruction Due to Intraluminal Metastases from Metastatic Renal Cell Cancer

SRIKALA S. SRIDHAR, MASOOM A. HAIDER, MAHA GUINDI, MALCOLM J. MOORE

Princess Margaret Hospital and University of Toronto, Department of Medical Oncology and Hematology, Toronto, Ontario, Canada

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ABSTRACT

A 71-year-old man, with a history of metastatic renal cell cancer (RCC), presented with symptoms of a small bowel obstruction with nausea, vomiting, cramps, and diarrhea. He underwent surgery and was found to have intraluminal metastases from his metastatic RCC. Intraluminal metastases are rare and usually present with obstruction, bleeding, or perforation. The mainstay of treatment remains complete surgical excision, even in the face of widely metastatic disease. Surgery not only palliates symptoms, but may also extend survival because metastatic RCC can be a very indolent and unpredictable disease. Furthermore, these patients can now be treated with a new class of antiangiogenic agents that are showing impressive response rates, which may also translate into improved overall survival. The Oncologist 2008;13:95–97

CASE

A 71-year-old man presented to the emergency room (ER) with nausea, vomiting, abdominal cramps, weight loss, and diarrhea. Seven years earlier he was diagnosed with renal cell carcinoma (RCC) and had a right nephrectomy. The tumor invaded the renal vein, inferior vena cava, hilar lymph nodes, right adrenal gland, and the renal vein resection margin was positive. One year later, the tumor recurred in the renal vein stump and he underwent a caval resection. He remained well for 3 years, at which point routine surveillance showed asymptomatic lung and liver metastases, and 1 year later small bowel metastases. Because he was clinically well he received no systemic treatment and was stable for 3 years until his presentation to the ER.

Clinical examination revealed tenderness on deep palpation in the epigastric region. Laboratory findings were normal except for a mild normocytic anemia, and hyponatremia. Abdominal computed tomography scan (Fig. 1) demonstrated marked dilatation of the small intestine (4 cm diameter) and the presence of a 3.9 cm × 3.4 cm, hypervasculature mass 30 cm proximal to the terminal ileum. The mass had intraluminal, mural, and extraluminal components with large draining veins. Distal to the mass, the small intestine was collapsed. Progression of liver metastases was also noted.

The patient underwent a laparoscopic-assisted small bowel resection, which revealed a metastatic nodule involving the mucosa, small bowel wall, and subserosal fat (Fig. 2). The tumor was composed of polygonal cells

Correspondence: Srikala Sridhar, M.D., M.Sc., F.R.C.P.C., Department of Medicine, Suite 5–222, Princess Margaret Hospital, 610 University Avenue, Toronto, Ontario, M5G 2M9, Canada. Telephone: 416-946-2249; Fax: 416-946-6546; e-mail: srikala.sridhar@uhn.on.ca Received December 21, 2006; accepted for publication April 2, 2007. ©AlphaMed Press 1083-7159/2008/$30.00/0 doi: 10.1634/theoncologist.2006-0214

consistent with clear cell RCC (Fig. 3). The resection margins were negative, as were six resected lymph nodes.

The postoperative course was uneventful. The patient remained well and relatively asymptomatic for another 19 months. Then, as a result of worsening liver metastases, he was offered a trial comparing interferon with an antiangiogenic agent. He was randomized to receive interferon, but unfortunately died 2 months later of a cardiac arrest.

DISCUSSION

Intraluminal small bowel metastases from metastatic RCC are not commonly seen, but based on autopsied cases may have an incidence of 0.7%–14.6% [1–18]. The interval from initial nephrectomy to presentation of intestinal metastases ranged from 3 months to 20 years, and appeared to correlate with overall disease-specific survival [1–15, 19]. Intestinal metastases occur equally in the jejunum and the ileum and usually present with intestinal bleeding because of tumoral invasion of intestinal vessels [12] and/or intestinal obstruction. Intussusceptions of the metastatic lesion causing obstruction have also been reported [1, 2, 4, 5, 20]. The majority of patients with intestinal RCC metastases also had pulmonary metastases, suggesting that the lung, via the pulmonary circulation, may be a key disseminating site for RCC metastases [1–15, 21]. All patients presenting with intestinal metastases underwent surgery that resulted in complete resolution of abdominal symptoms.

This case report and review of the literature suggests that an aggressive surgical approach is favored for small
bowel metastases from metastatic RCC. Surgery not only palliates symptoms but may also lead to improved overall survival. In fact, several studies suggest that, in general, consideration should be given to surgical resection of solitary or single organ site distant metastases from RCC because metastatic RCC is such an indolent, unpredictable disease [19]. Furthermore, several novel agents targeting angiogenesis and showing impressive response rates are now available, which may further translate into overall survival benefits. Patients are thus likely going to be living longer with this disease, and so early recognition and appropriate management of potentially resectable metastatic lesions becomes particularly important.

**REFERENCES**
