MEDICAL IMAGE

Metastatic Renal Cell Carcinoma Presenting with Melena

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INTRODUCTION

A Fifty-nine-year-old gentleman with a history of metastatic renal cell carcinoma diagnosed 14 years ago status post right nephrectomy with subsequent metastasis 13 years later, to the thyroid glands, lungs, lymph nodes, adrenal gland with multiple pancreatic metastatic lesions. He was radiation and chemotherapy-naïve. He presented with a four day history of intermittent melena with symptomatic anemia to the emergency room. Physical examination was unremarkable. Hemoglobin was 6.2 g/dl from a prior baseline of 12.3 g/dl two months earlier. Blood urea nitrogen (BUN) was 38 mg/dl (normal 8 – 24 mg/dl) with a creatinine of 1.1 mg/dl (normal 0/8 – 1.3 mg/dl). An esophagogastroduodenoscopy was performed. This showed a large sized friable and sessile mass with no active bleeding found in the duodenal sweep **(Figure 1)**. The histopathology findings of this mass were remarkable for fragments of an ulcer bed without normal duodenal epithelium (Hematoxylin and eosin; original magnification 100x, **Figure 2**) involved by abundant nests of large clear cells with nested architecture and prominent vasculature consistent with metastatic renal cell carcinoma (Hematoxylin and eosin; original magnification 600x, **Figure 3)**. Following esophagogastroduodenoscopy, a contrast CT of the abdomen showed new intraluminal metastasis invading into the duodenum arising from the largest pancreatic head metastasis measuring 2.5 cm **(Figure 4)** without active bleeding. The patient was treated with palliative radiation therapy.

DISCUSSION

Renal cell carcinoma is the most commonly found highly malignant neoplasm of the kidney [1, 2]. RCCs are known to metastasize years after the primary tumor has been treated [2]. When patients present with metastasis, the common sites are the lung and bone while lymph nodes, liver, brain and the contra lateral kidney are less common sites [2]. Metastasis to the pancreas and gastrointestinal tract is rare [2]. The rate of metastasis prior to treatment of the primary is about 24-28% but may increase to as much as 51% post nephrectomy [2]. The least likely site to be affected by metastatic RCC among the GI organs is the duodenum; with GI bleeding the most common initial presentation [3], but may rarely present with obstruction, or intussusception [1, 4]. In our case, it is likely that the duodenal mass seen on endoscopy and imaging **(Figures 1 and 4)** arose as a result of direct invasion from a pancreas met.

Renal cell carcinoma can behave in unpredictable ways. In patients presenting with GI bleeding with a history of renal cell carcinoma, metastasis to the small bowel is a potential source of GI bleeding.

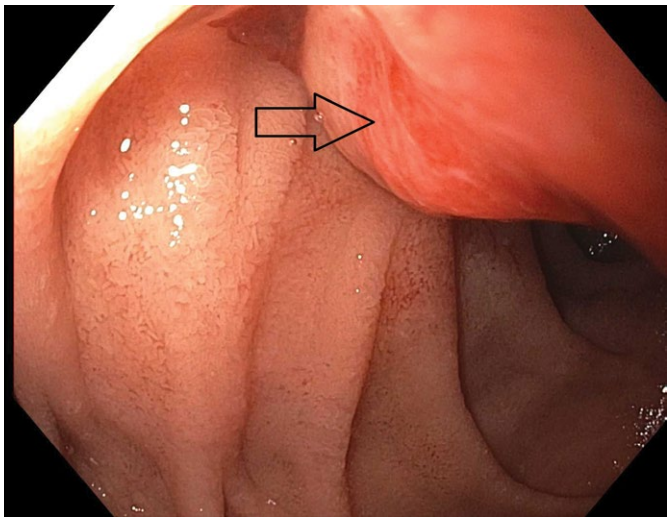

Figure 1. The duodenal sweep.

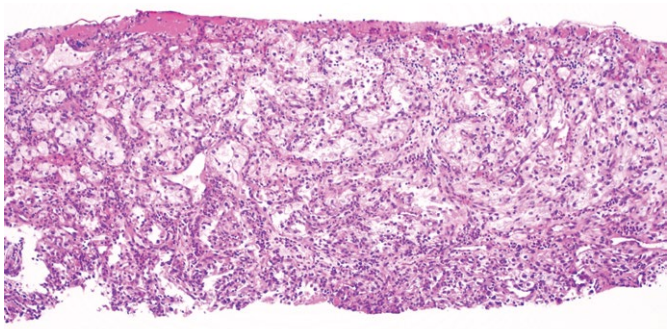

Figure 2. Ulcer bed without normal duodenal epithelium (Hematoxylin and eosin; original magnification 100x.

Received May 13th, 2017 - Accepted July 07th, 2017
Keywords Clear-cell metastatic renal cell carcinoma; Duodenum; Pancreas
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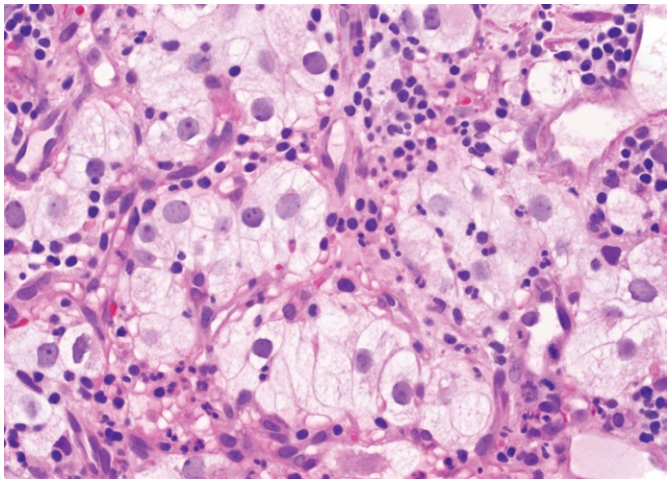

Figure 3. Prominent vasculature consistent with metastatic renal cell carcinoma (Hematoxylin and eosin; original magnification 600x.

Conflict of Interest

The authors declare that they have no conflict of interest.

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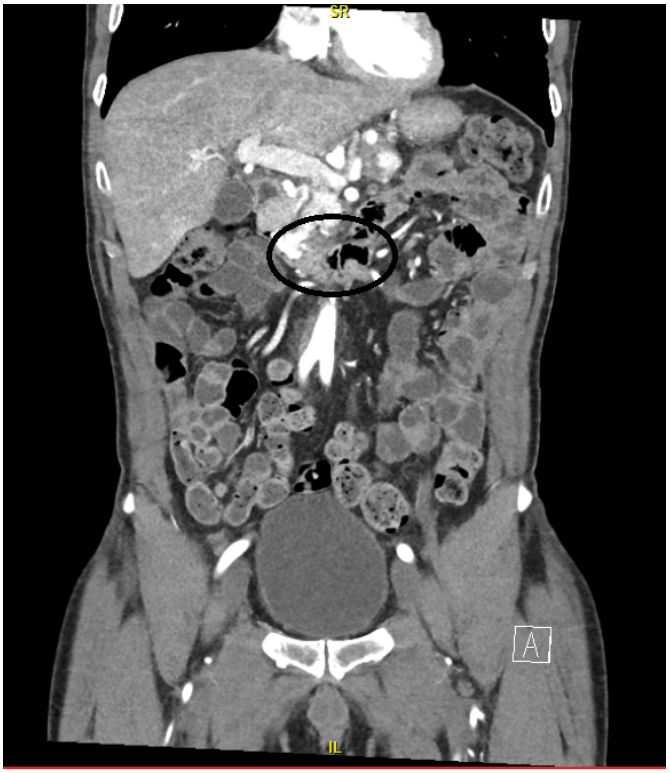

Figure 4. The duodenal mass seen on endoscopy and imaging.

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