Late Recurrence of Renal Cell Carcinoma Presenting as Gastric Polyps 10 Years After Nephrectomy

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Introduction

- Renal cell carcinoma (RCC) constitutes 3% of all adult malignancies; gastric metastasis of RCC is reported in 0.2% of cases (Figure 1).
- RCC recurrence can be local or distant, with the most common sites of metastasis being lung (70%), lymph nodes (45%), bone (32%), liver (18%), adrenal gland (10%), and brain (8%) (Figure 2).
- Surgical resection of RCC can be curative; however, 1/3 of patients may relapse most often within the first 3 years.
- Late recurrence >5 years after nephrectomy can occur in up to 10% of patients.
- Higher Fuhrman grade (>3) and pT stage (>2) at time of initial diagnosis are risk factors.
- We describe a case of late RCC recurrence presenting as anemia secondary to gastric metastases 10 years after radical nephrectomy.

Case Description

- 77 year old female underwent endoscopy for investigation of hemoglobin 6.5 g/dL without overt gastrointestinal bleeding.
- She had a past medical history of RCC (Fuhrman grade 3, pT1b, stage 1) ten years prior to presentation for which she had undergone a radical nephrectomy.
- EGD demonstrated two large (>1 cm), sessile polyps in the gastric body with additional scattered small, sessile, and ulcerated lesions in the gastric body and antrum (Figure 3).
- Gastric polyps were resected using hot snare polypectomy and sent for pathology, which returned as metastatic clear cell type RCC in both polyps (Figure 4,5,6).
- CT scan chest, abdomen, and pelvis was ordered which showed evidence of mediastinal lymphadenopathy and pulmonary nodules suggestive of metastatic disease.
- She was started on a regimen of pembrolizumab and axitinib with cycles every 21 days.

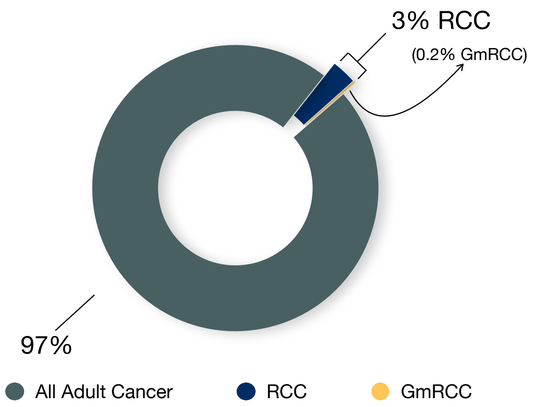

Figure 1. Gastric metastasis of renal cell carcinoma compared to all adult malignancies.

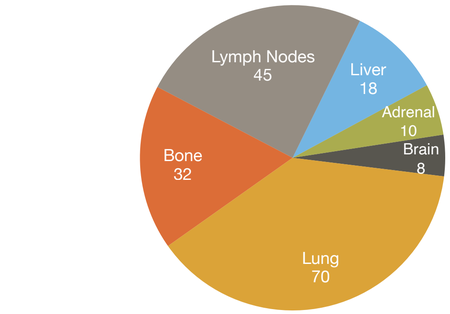

Figure 2. Common distribution of metastatic disease in patients with diagnosed RCC as percentages.

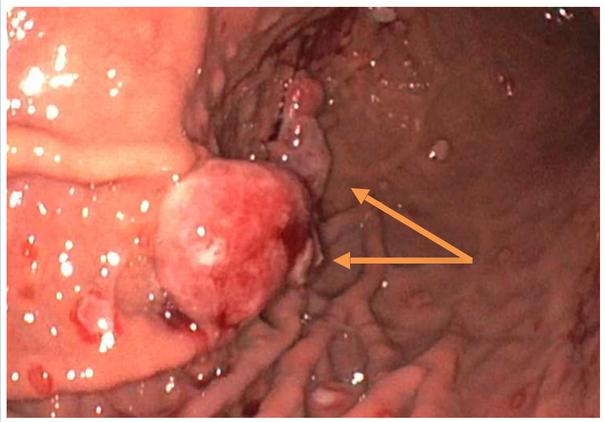

Figure 3. Image shows two large, polypoid lesions in the gastric body with additional scattered, sessile, and ulcerated lesions in the body and antrum.

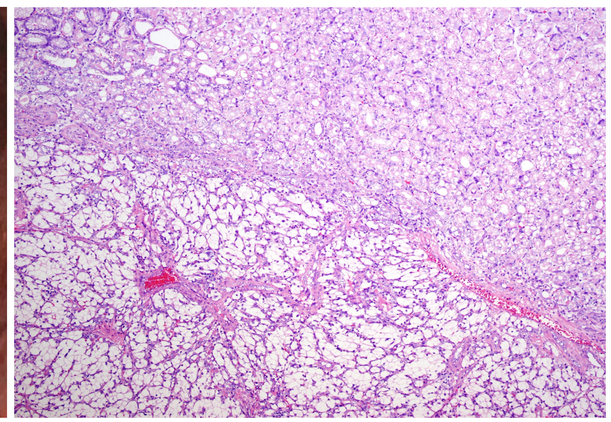

Figure 4. H&E stain shows gastric type mucosa and deeper layer within the submucosal area infiltrated by compact nests of pale looking tumor cells with abundant clear cytoplasm.

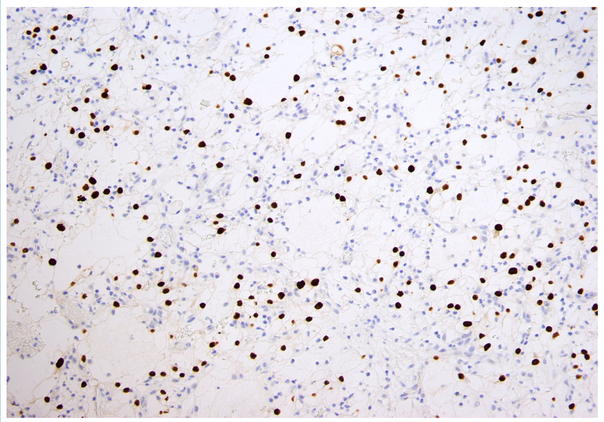

Figure 5. Tumor cells positive for PAX-8.

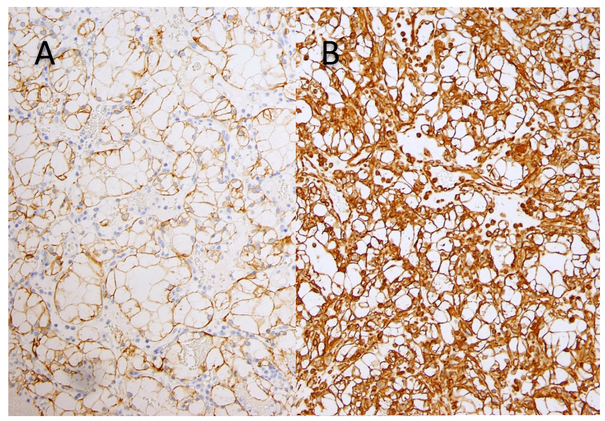

Figure 6. CAM 5.2 (A) and Vimentin (B) support a diagnosis of renal cell carcinoma, clear cell type.

Discussion

- Gastric metastasis of renal cell carcinoma has rarely been reported.
- Given the capillary network of the gastrointestinal tract, metastatic disease to the stomach is uncommon as tumor cells generally fail to implant into the submucosal layer of the stomach wall.
- At the time of discovery, most patients with diagnosed RCC will present with concomitant tumor spread affecting multiple organ systems suggesting that metastatic spread in the gastric region is a late outcome in the sequence of this disease.
- Management includes local excision if possible and systemic chemotherapy.
- Reports of gastric lesions positive for clear cell type renal cell carcinoma generally describe highly-vascularized, large, single gastric polyps.
- Our patient had multiple polypoid lesions with a diffuse distribution, presented without GI symptoms, had low risk RCC at time of diagnosis, and was 10 years post-nephrectomy; therefore, GI recurrence of RCC was clinically unsuspected.

Conclusion

- This case demonstrates that multiple large gastric polyps in a patient with a history of renal cell carcinoma should be considered suspicious for metastatic disease or recurrence even one decade after nephrectomy.

References

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