



Partial Pancreas Sparing Duodenectomy and Remnant Gastrectomy in Patient with Factor V Leiden and Previous Roux-en-Y Gastric Bypass



K. Kaluzny, F. Walter, J. Walters, W. Arnold, C. Koehler

Abrazo Health General Surgery Residency, Abrazo Health Network, Glendale, AZ

Introduction

Bariatric surgery in patients with morbid obesity have demonstrated a reduced risk of various obesity-associated malignancies across numerous studies. Contrarily, there have been an increased number of case reports on gastroesophageal cancers after bariatric surgeries, which are often diagnosed at advanced stages and years after the index procedure. This is especially a challenge with malignancies arising from the gastric remnant after Roux-en-Y gastric bypass (RNYGB), given the need for alternative diagnostic approaches other than standard upper endoscopy. This case report discusses the rare finding of gastric cancer of the gastric remnant, eighteen years after the patient's RNYGB.

Case Presentation

51-year-old female presenting with weakness and unintentional weight loss over the past year

Past Medical History: morbid obesity, Factor V Leiden on chronic anticoagulation, paraplegia

Past Surgical History: RNYGB, laparoscopic cholecystectomy

Social History: Negative

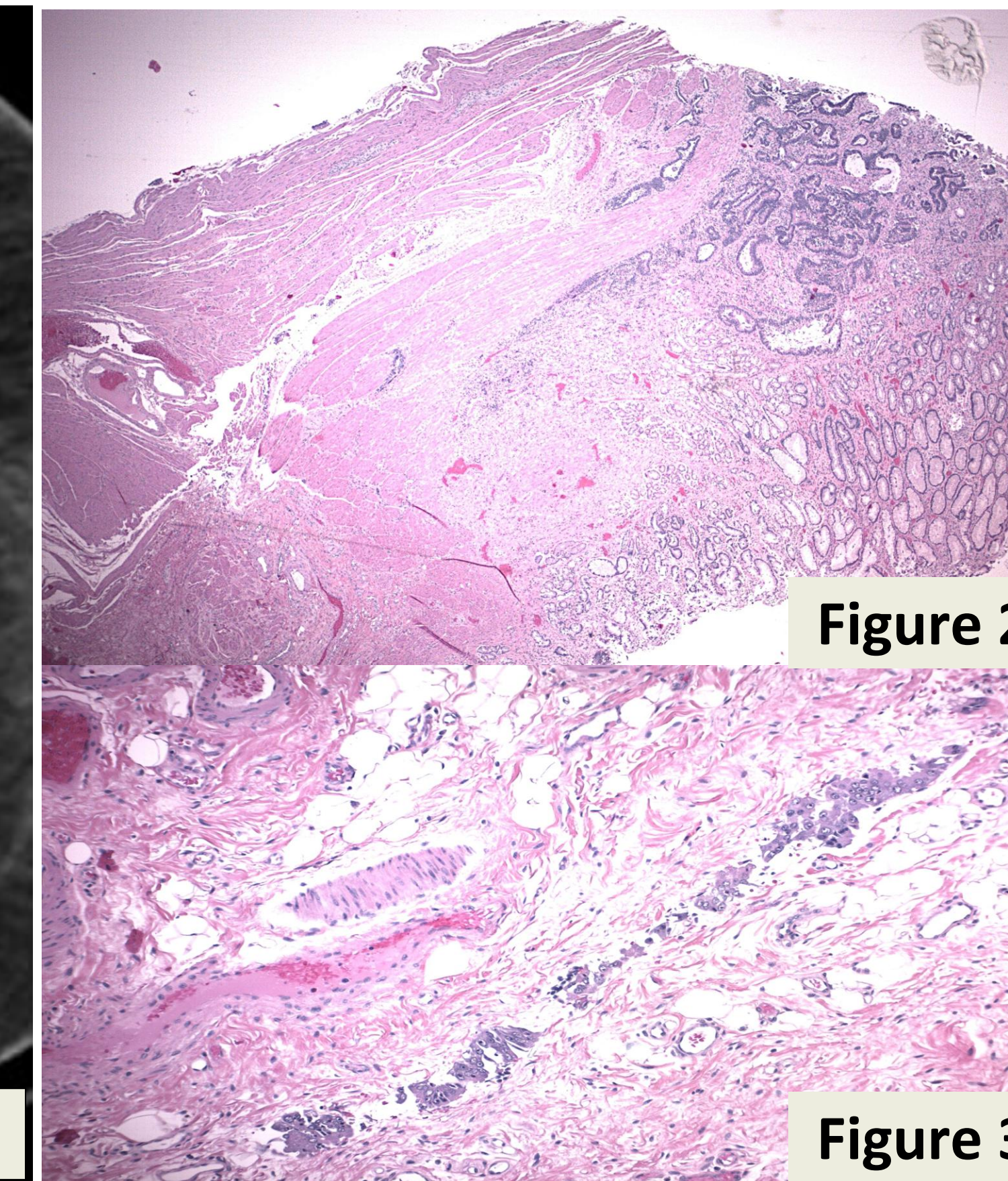
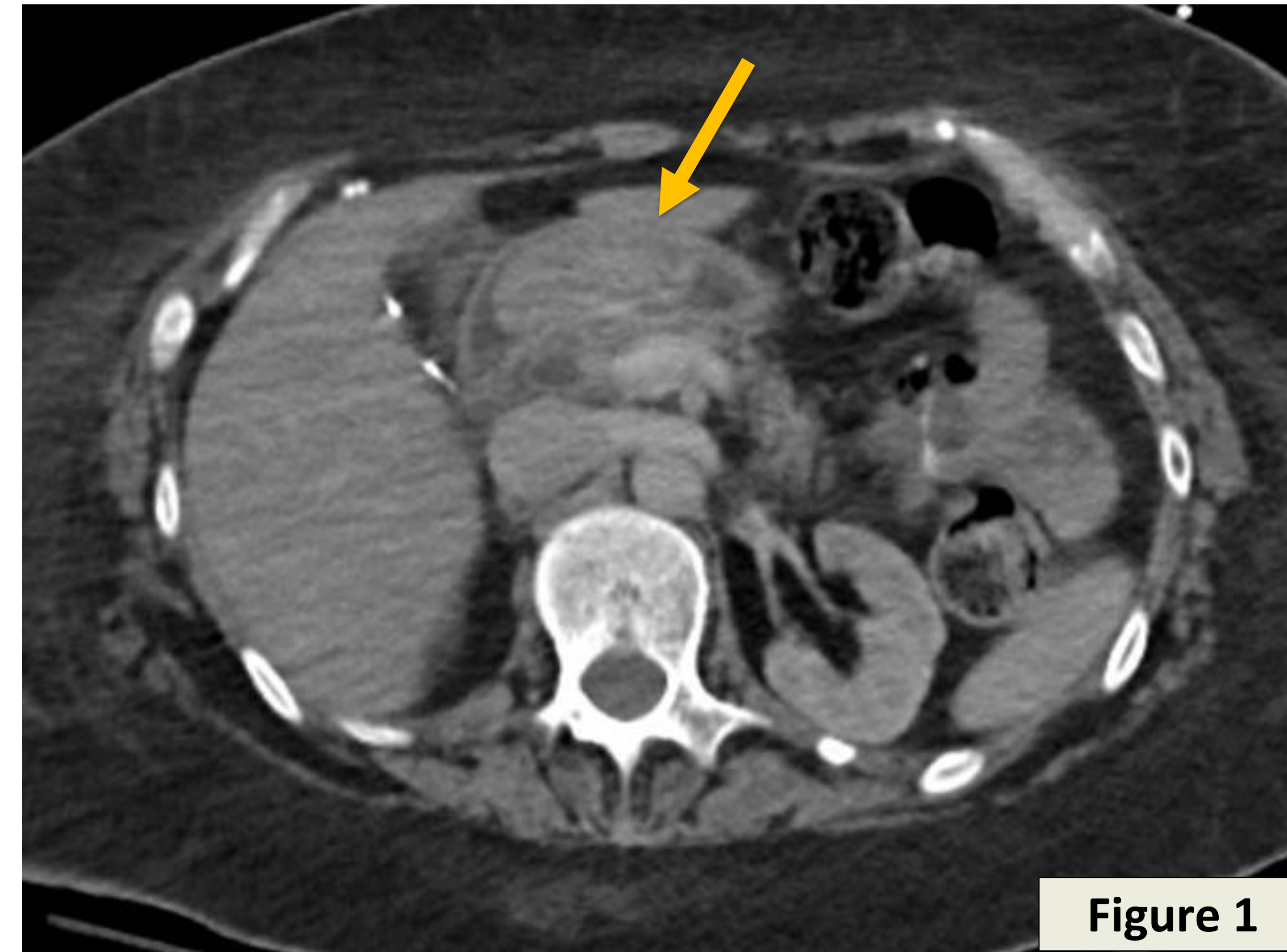
Objective

Vital Signs: Within normal limits

Physical Exam: Abdomen soft, nontender

Lab Results: WBC 2.9, Hgb 7.9

CT Abd/Pelvis: Intraluminal 5.1 cm soft tissue density at gastric antrum and first portion of duodenum (Figure 1)



Surgical Management

First Case: Diagnostic

- Laparoscopic gastrostomy with insertion of 12 mm trochar to facilitate endoscopic evaluation of mass
- Multiple biopsies obtained revealing high-grade dysplasia.
- Wedge resection of stomach performed at site of gastrostomy.

Second Case: Resection

- Robotic facilitated laparoscopic remnant gastrectomy and duodenectomy.
- No evidence of widespread metastatic disease at beginning of case
- Duodenum dissected off pancreas and divided at junction of first and second segment
- Excluded stomach completely dissected while preserving vascular supply to the gastric pouch

Pathology Report

Tubular adenocarcinoma 2.8x2.5x2.3 cm located in pylorus with moderate to poor differentiation, invading muscularis propria with lymphovascular invasion (Figure 2 and 3). Negative margins. Four lymph nodes negative for metastatic disease

Discussion

- This patient case is one of the very few gastric cancers of the remnant stomach reported in the literature.
- Overall incidence is unknown but potentially underreported, especially with the substantial rise in bariatric surgeries performed.
- Etiology thought to be related to the increase in bile stagnation of the remnant stomach leading to processes of inflammation, cell proliferation, and bacterial overgrowth
- With the rise in reported gastroesophageal malignancies post bariatric malabsorptive procedures, studies have proposed routine follow up with esophagogastroduodenoscopy in high-risk patients
- This fails to address diagnostic challenge of cancers in the remnant stomach after RNYGB, and may explain the delay in diagnosis compared to cancers of the gastric tube
- A high index of suspicion for underlying malignancy should not be dismissed in this population and appropriate diagnostic workup should be undertaken
- The outcome of this case stresses the importance of appropriate preoperative workup with identification of risk factors for gastric malignancy, as well as establishing long-term routine postoperative follow-up.

References

- Chemaly, R., Diab, S., Khazen, G. *et al.* Gastroesophageal Cancer After Gastric Bypass Surgeries: a Systematic Review and Meta-analysis. *OBES SURG* 32, 1300–1311 (2022). <https://doi.org/10.1007/s11695-022-05921-4>
- Sundbom, M., Hedenström, H. & Gustavsson, S. Duodenogastric Bile Reflux After Gastric Bypass: A Cholescintigraphic Study. *Dig Dis Sci* 47, 1891–1896 (2002). <https://doi.org/10.1023/A:1016429603337>
- Tornese, S., Aiolfi, A., Bonitta, G. *et al.* Remnant Gastric Cancer After Roux-en-Y Gastric Bypass: Narrative Review of the Literature. *OBES SURG* 29, 2609–2613 (2019). <https://doi.org/10.1007/s11695-019-03892-7>