Incidental GISTs Encountered During Bariatric Surgery: A Case Series

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Introduction

The bariatric surgeon can expect to encounter coexisting incidental pathology in up to 2% of laparoscopic bariatric surgeries. Specifically, gastrointestinal stromal tumors (GISTs) have an incidence of 0.8% of these cases. This number is much greater than the incidence of GISTs found in the general population, which is around 0.0007%. We report a case series of three individuals undergoing bariatric surgery who were incidentally diagnosed with GISTs perioperatively.

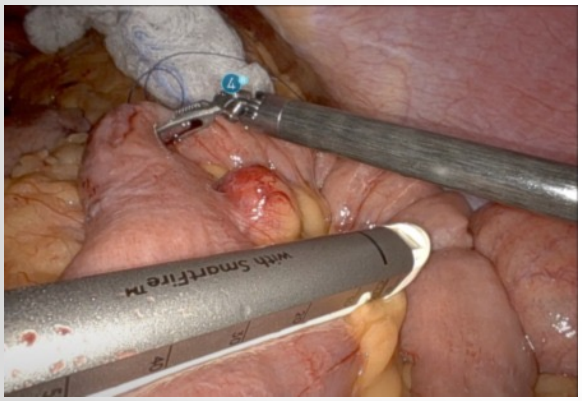


Figure 1

Case 1

A 49-year-old female with BMI 37 kg/m^2, prediabetes, HTN and mild GERD underwent robotic-assisted laparoscopic Roux-en-Y gastric bypass surgery. While running the bowel, there was noted be a 2cm firm mass in the small bowel mesentery about 60cm distal to the ligament of Treitz (fig. 1). It was at the location of the future gastrojejunostomy, so it was resected, and the operation was completed. Pathologic examination revealed a 2x1.5x1.2cm high-grade GIST, spindle cell type with negative margins and mitotic rate 11/5mm^2 consistent with pT1 GIST with high risk of progressive disease. Her postoperative course was uneventful. The patient is to undergo three years of adjuvant imatinib therapy.

Case 2

A 72-year-old female with BMI 43 kg/m^2, T2DM, OSA on CPAP, HTN, and GERD underwent laparoscopic sleeve gastrectomy. Laparoscopy revealed a 7mm exophytic gastric mass along the greater curvature. It was removed with the gastrectomy specimen. Pathologic examination revealed a 1.2x1.0x0.8cm pink-tan, rubbery, oval lesion comprised of medium-sized spindle cells with perinuclear vacuoles arranged in fascicles without mitotic activity, CD117 positive, consistent with subserosal GIST, very low risk. She did not qualify for adjuvant imatinib treatment.

Case 3

A 61-year-old female with BMI 42 kg/m^2, T2DM, HTN, and GERD underwent uncomplicated robotic sleeve gastrectomy. Pathology of the resected portion of stomach revealed a 1.0x0.8x0.8cm tan-white, firm lesion on the serosal surface. The tumor had inconspicuous mitotic activity, positive for CD117, H. pylori, and Ki-67 1-3% overall, consistent with pT1 GIST. Treatment with adjuvant imatinib was not indicated.

Discussion

There are some important principles to remember in the surgical resection of GISTs. First, the goal for surgery is to resect the tumor with histologically negative margins; segmental or wedge resection of the tumor is often sufficient due to the limited intramural extension of these tumors. Next, the surgeon must attempt to not violate the delicate pseudocapsule of the tumor in order to avoid tumor rupture, which is associated with a much higher risk of recurrence. Finally, GISTs have a low incidence of nodal metastases, therefore lymphadenectomy or anatomic resections are usually not indicated.

Conclusion

Obesity increases the risk of cancer, especially of the GI tract. Therefore, the bariatric surgeon should be aware of the increased risk of discovering coexisting intraabdominal pathology during their operations or upon review of their surgical specimens.