Importance of an Early Diagnosis in Obstruction Secondary to Small Bowel Adenocarcinoma

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Introduction

Small bowel obstruction (SBO) accounts for 20 percent of surgical emergencies.[1] Cases of SBO are most commonly caused by adhesions, accounting for 74% of cases. Followed by, crohns 7%, cancer 5% and hernias 2%.[2] Primary small bowel tumors most frequently causing SBO are gastrointestinal stromal tumors 36%, lymphomas 24% and adenocarcinomas 18%. Majority of tumors causing SBO are located in the ileum. Small bowel tumors account for one to two percent of gastrointestinal neoplasms, emphasizing the importance of our case report.[3]

Case Description

57-year-old African American woman presented with abdominal pain, vomiting, early satiety, 27 pound weight loss and intermittent episodes of constipation. Computed tomography (CT) of the abdomen demonstrated concern for SBO as seen in Figure 1. Upper endoscopy attempted although unsuccessful due to 400 cc of retained bilious fluid in the stomach. The fluid was aspirated and emergency laparotomy performed, which revealed a 2.5 x 2.0 x 1.0 cm tumor. Resection of the mass with 5 cm proximal and distal margins, small bowel mesenteric lymph node sampling, and primary anastomosis was completed. Histopathology confirmed diagnosis of Stage IIIB (T3N2M0) jejunal adenocarcinoma extending into subserosa and lymph nodes. The patient achieved remission with

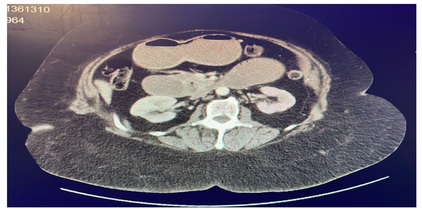


Figure 1. Fluid filled dilated loops of bowel

FOLFOX chemotherapy for 6 months. 9 months later, patient returned to ED with jaundice and found to have metastases. Endoscopic retrograde cholangiopancreatography (ERCP) revealed a 2 cm stricture at the distal common bile duct, and a 10 x 60 mm self-expandable metal stent was placed. Subsequently, after suffering a series of health complications including stroke and deep vein thrombosis, palliative care was initiated and later expired.

Discussion

Small bowel adenocarcinoma most often presents at Stage IV of disease (35%), Stage III (25%), Stage II (30%) and Stage I (10%).[4] Below are the stages according to American Cancer Society:

Stage 1: Lamina propria, submucosa or muscularis propria

Stage 2A: Muscularis propria and subserosa

Stage 2B: Peritoneum or into nearby organs

Stage 3A: Any layers of small intestine and 1 or 2 lymph nodes

Stage 3B: any layers of small intestine and 3 or more lymph nodes

Stage 4: any layers of small intestine, distant lymph nodes or organs

Of note, Surveillance, Epidemiology and End Results (SEER) analysis indicates a strong relationship between five year survival and lymph node resection.[5]

Stage	5 year survival rate with 0 lymph node resection	5 year survival rate with >7 lymph node resection
I	70%	95%
II	44%	83%
III	-	56%

Figure 2. Compares five year survival with patients who had more than 7 lymph nodes removed

For treatment, NCCN recommends adjuvant therapy with an oxaliplatin +/- fluoropyrimidine due to treatment failure.[6] Neoadjuvant therapy is being studied but one study demonstrated conversion to resectable disease.[7]

Conclusion

Due to limited research and late diagnosis, our case emphasizes the importance of further research regarding small bowel adenocarcinoma.

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