A Rare Case of Obstructive Primary Squamous Cell Carcinoma of the Sigmoid Colon

Corbin Stephens, MD[1], Alexandria Dennison, MD[1], Syed Jafri, MD[2]

[1]Internal Medicine Residency Program, HCA Healthcare Kansas City
[2]Department of Gastroenterology, HCA Midwest

Introduction

- Squamous cell carcinoma (SCC) within the gastrointestinal tract most commonly occurs in the esophagus and anus.[1] Very rarely, SCC can occur as a primary colorectal cancer. Currently, there are no established guidelines for the treatment of primary colorectal SCC. Despite efforts to utilize surgical, chemotherapy, and radiation therapy approaches, the prognosis for this aggressive disease remains poor. In this case, we present a 62-year old woman that developed intractable vomiting following bowel preparation for colonoscopy, and subsequently was diagnosed with obstructive SCC of the sigmoid colon.

Case

- A 62 year old female with no relevant past medical or family history presented to the emergency department for abdominal discomfort, nausea, and vomiting. The patient had complained of 3-4 months of lower abdominal pain, described as cramping, non-radiating, worsened with eating, and moderate to severe in intensity. She denied melena, hematochezia, weight loss, or night sweats. She had began bowel preparation earlier that day with polyethylene glycol 3350 for a planned colonoscopy. She subsequently developed intractable nausea and vomiting.
- Initial laboratory analysis including a complete blood count and comprehensive metabolic panel were largely unremarkable. A computed tomography of the abdomen and pelvis revealed findings consistent with distal colonic obstruction, short segment circumferential wall thickening at site of abrupt caliber taper. A colonoscopy confirmed a completely obstructing medium circumferential mass in the distal sigmoid, a depth of 20 mm from the anus. A biopsy taken was inconclusive.
- The patient subsequently underwent laparoscopy with open left sigmoid resection with primary sutured anastomosis. The pathology was consistent with invasive, well-differentiated squamous cell carcinoma with involvement in one of 17 pericolonic lymph nodes.
- PET scan revealed hypermetabolic activity in the postsurgical area as well as in a right thyroid nodule. Patient is scheduled to start cisplatin and fluorouracil.

Discussion

- Colorectal squamous cell carcinoma is an especially rare disease, with an incidence of 0.10 to 0.25 per 1000 colorectal cancers.[1] The first case of colorectal SCC was described in 1919, with approximately 150 cases occurring since this time.[1,2] The mean age at presentation is 55-60 years, and it occurs more frequently in women (54.5-66%).[3] The typical presenting symptoms include abdominal pain, gastrointestinal bleeding, weight loss, diarrhea, and constipation.[3] The most frequent site is in the rectum, followed by the right colon and rarely the left colon.[4]
- While there are no established risk factors for primary SCC of the colon, an association with various conditions has been made in several case reports including concurrent ulcerative colitis and infection with schistosomiasis, Entamoeba histolytica, human papilloma virus (HPV).[5]
- Currently, there are no established guidelines that pertain specifically to the treatment for primary SCC. A systemic review found that the treatment approach most often adopted is similar to that of adenocarcinoma.[5] This includes surgical removal of the SCC with or without chemotherapy. Commonly used chemotherapy regimens include 5-fluorouracil with cisplatin or mitomycin-C.[5,6]
- Colorectal SCC has remained a difficult disease to treat with a poor prognosis. Five year survival rates for patients with SCC following surgical resection is 50% for Dukes' Class B lesions, 33% for Dukes' Class C lesions, and 0% for Dukes Class D lesions.[6]

Figure

Dukes Classification for Colorectal Cancer	
A	Tumor is in the mucosa and submucosa
B	Tumor has invaded through the muscular layers into the serosa
C	Tumor has advanced to involve lymph nodes
D	Tumor has metastasized to involve other organs and tissues

Figure 1. Dukes Classification of Colorectal Cancer.[7]

Conclusion

- There are no established risk factors for colorectal SCC, but several associations have been made in previous case reports including ulcerative colitis and infection with schistosomiasis, Entamoeba histolytica, HPV.[5]
- Primary SCC of the sigmoid colon is an extremely rare disease that remains difficult to treat. Further research is needed to better elucidate therapeutic methods specifically targeting this condition

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