A Case of Signet Ring Cell Colon Carcinoma Initially Presenting As Acute Diverticulitis

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Learning Objectives
- Highlight guidelines and importance on colon cancer screening
- Educate on follow-up colonoscopy following diverticulitis treatment
- Enlighten clinicians on signet ring cell cancer

Introduction
- Signet ring cell cancer is a very rare and deadly type of colon malignancy
- Case profiles a unique circumstance where a patient with a final diagnosis of signet ring cell carcinoma originally presented with acute diverticulitis

Patient Case
- HPI
  - 53 y.o. Caucasian female with sharp LLQ abdominal pain
- ROS
  - No fevers, diarrhea, rectal bleeding, emesis, melena
- PMH
  - Diabetes, Hypertension
- FSH
  - No prior colonoscopies or endoscopies
- Social Hx
  - No recent travel or sick contacts
- Family Hx
  - No gastroenterological disorders or cancers
- Labs
  - WBC: 12.6
- Imaging
  - CT scan A/P: moderate diverticulosis with mural thickening of the proximal sigmoid colon with adjacent edema and free pelvic fluid
  - 4.5 cm abscess inferior to the proximal sigmoid colon
- Hospital course
  - Placed on piperacillin/tazobactam for diverticulitis
  - Interventional Radiology for drainage of abscess
- Post Hospital Course
  - 6 week follow up colonoscopy showing obstructing mass lesion 20-25 cm from the anal verge
  - Sigmoidectomy with primary anastomosis
  - Pathology: high grade, poorly differentiated signet-ring cell carcinoma with metastatic carcinoma in 11 out of the 12 surrounding lymph nodes.

Discussion
- Signet Ring Cell Facts
  - Signet ring cell cancer present in <1% of all colon cancers
  - First known incidence of signet ring cell carcinoma of the colon was reported in 1951
  - Signet ring cell cancer is predominately located in the stomach (99%) when found in the GI tract
  - Named for physical appearance of dominant cell type
  - Cells must comprise >50% of total amount of tumor cells
  - More likely to present at later stage than adenocarcinoma
  - More common in patients with IBD and history of radiation exposure
  - High frequency of BRAF mutations
  - Common presentation involves rectal bleeding, SBO, abdominal pain, hematochezia, abdominal mass, changes in bowel habits
- Colorectal Cancer Screening Guidelines Involving Colonoscopy in patient with no risk factors (ACG guidelines)
  - Begin at age 50 with repeat every 10 years
  - Begin at age 45 in African Americans
- Guidelines for colonoscopy following diverticulitis
  - Screening should take place 6 to 8 weeks following resolution of diverticulitis

Conclusion
- Signet ring cell cancer is a very rare form of colon malignancy
- Case highlights the importance of patients obtaining follow-up colonoscopy following a diagnosis of diverticulitis and the continued need for routine screening colonoscopies to detect and prevent the occurrence of colon cancer.

References