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

Justin DeRosa DO
Rowan University SOM

Jonathan Foster DO
Rowan University SOM

Drew Chiesa DO
Rowan University SOM

Darshan Roy MD
Rowan University SOM

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

Dr. Justin DeRosa D.O., Dr. Jonathan Foster D.O., Dr. Drew Chiesa D.O., Dr. Darshan Roy M.D.

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 or 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 Colonooscopy 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