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
<table>
<thead>
<tr>
<th>HPI</th>
<th>ROS</th>
<th>PMH</th>
<th>FSH</th>
<th>Social Hx</th>
<th>Family Hx</th>
<th>Labs</th>
<th>Imaging</th>
<th>Hospital course</th>
<th>Post Hospital Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>53 y.o. Caucasian female with sharp LLQ abdominal pain</td>
<td>No fevers, diarrhea, rectal bleeding, emesis, melena</td>
<td>Diabetes, Hypertension</td>
<td>No prior colonoscopies or endoscopies</td>
<td>No recent travel or sick contacts</td>
<td>No gastroenterological disorders or cancers</td>
<td>WBC: 12.6</td>
<td>CT scan A/P: moderate diverticulosis with mural thickening of the proximal sigmoid colon with adjacent edema and free pelvic fluid</td>
<td>Placed on piperacillin/tazobactam for diverticulitis</td>
<td>6 week follow up colonoscopy showing obstructing mass lesion 20-25 cm from the anal verge</td>
</tr>
</tbody>
</table>

### 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 common in patients with IBD and history or radiation exposure
  - High frequency of BRAF mutations
  - More common in patients with IBD and history or radiation exposure

- **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