An Extremely Rare Presentation of Large Cell Neuroendocrine Carcinoma of the Transverse Colon

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Introduction

Large cell neuroendocrine carcinoma (LCNEC) is a rare and deadly cancer with a poor prognosis.

- The majority of cases affect the lungs and gastrointestinal tract, but it can affect any part of the body.
- Colon and rectal neuroendocrine carcinomas are rare, accounting for less than 1% of all colon and rectal cancers.
- We present the unusual case of an 85-year-old woman with large cell neuroendocrine carcinoma of the transverse colon.

Case Description

An 85 year old female with a significant PMH of CKD and anemia of chronic disease presented to the hospital with abnormal lab work.

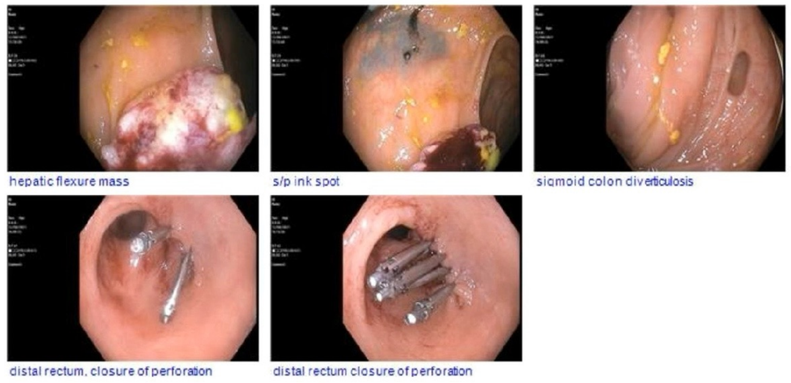
- patient reported vague abdominal symptoms but denied having any hematochezia, melena, or hematemesis.
- prior colonoscopy in 2015 without any definitive pathology.
- Labs revealed significant iron deficiency anemia but she refused a transfusion of blood product.

Case Description

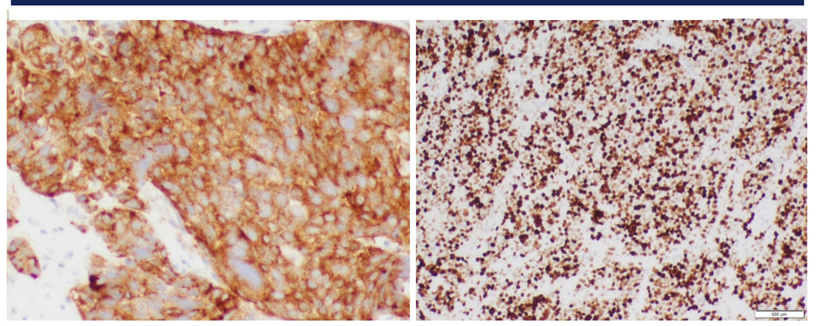
CT scan showed **approximately 5 cm of thickening involving the transverse colon** with an adjacently mildly enlarged mesenteric lymph node and a hypodense lesion seen in the inferior right hepatic lobe suspicious for metastasis.

- colonoscopy the mass was biopsied
- Exam had complications by a localized perforated rectum during retroflexion and had a diverting loop ileostomy
- Pathology revealed **large cell neuroendocrine carcinoma** with extramural venous invasion and infiltration of the mucosa propria into pericolic tissue.
- Tumor markers showed a high mitotic rate and immunochemistry stains were noted to be positive for **Ki-67, PAN CK, CDX2, synaptophysin, and chromogranin.**
- pathology also indicated nine of the 13 lymph nodes were positive for metastatic carcinoma.
- Patient was later followed by oncology but due to the patient's age and medical comorbidities, chemotherapy was not pursued.

Endoscopic Images of Colonic Mass



Pathology



A) 200 x - Neuroendocrine marker is positive

B.) Ki-67 100x - Ki-67 proliferative rate is high (>70%)

Discussion

- A large neuroendocrine tumor is a subtype of neuroendocrine tumors that are aggressive in nature, often present with metastasis, and a poor prognosis.
- **Colonic NETS are exceptionally rare accounting for only 0.2% of all colorectal cancers. Prognosis is relatively poor with a median survival of 10.4 months.**
- Our case highlights a rare case presentation of a large neuroendocrine tumor.