A Case of Symptomatic Ileal Non-Secretory Neuroendocrine Tumor Successfully Treated with Octreotide

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Introduction

Neuroendocrine tumor incidence is steadily increasing, likely from detection due to better imaging, routine colonoscopies, and endoscopies (1).
Most NETs, 55%, are found in the GI tract and only 0.1-1% found on routine colonoscopy (2).
About 40% of NETs are hormone producing leading to the clinical diagnosis of carcinoid syndrome (3).
One of the most common symptoms of carcinoid syndrome is diarrhea occurring in 80% percent of cases, however diarrhea can be present in non-secretory NETs (3).

Here is a case of GNET presenting with diarrhea that responded to octreotide injection despite having normal 5-HIAA and chromogranin A levels.

CASE PRESENTATION

Our patient is an 80-year-old female with past medical history of hypertension, renal stones, and IBS with baseline diarrhea of about 2-4 pasty stools a day.

- She developed two days of severe diarrhea with 10 watery stools a day and multiple episodes of incontinence which prompted patient to go to the ED.
- Inpatient workup was negative for acute causes, CT showed diverticulosis. Stools returned to baseline and patient was discharged with GI follow-up.
- After discharge, severe diarrhea retuned, and outpatient GI planned for colonoscopy.

WORKUP

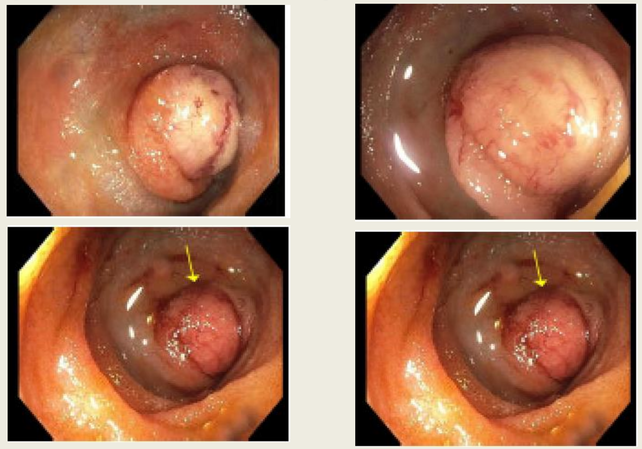
Colonoscopy:

- Results of the procedure included a 2cm submucosal non-obstructing mass in the terminal ileum. **Figure 1.**
- Pathology showed a G1 well differentiated neuroendocrine tumor.

Patient was referred to Oncology:

- Workup revealed no metastasis on PET/CT
- 5-HIAA (24 hr), Chromogranin A, and Serotonin levels all WNL
- Dotatate PET-CT ordered which ruled out occult malignancy but showed somatostatin uptake to primary tumor. **Figure 2**

Figure 1. Terminal ileum 2cm non-obstructing well-differentiated neuroendocrine tumor

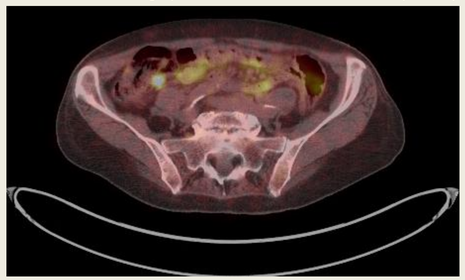


MANAGEMENT

Treatment options included surgery or medical management. Patient opted for medical therapy.

- Started on monthly injection of 30mg extended-release octreotide.
- Patient had significant improvement in diarrhea.
- PET-CT scans planned in future to monitor disease progress

Figure 2. Dotatate PET-CT showing uptake in the terminal ileum and primary malignancy



DISCUSSION

The terminal ileum is the most common GI location for NETs (1). Terminal intubation on coloscopy is attempted 30-80% and greatly aids in diagnosis, as with our patient (5).

Once diagnosed, there is limited guidance on treatment of diarrhea in patients with NETs and negative carcinoid workup (4). One treatment for carcinoid syndrome is somatostatin analogues, such as long-acting octreotide (5).

The patient had resolution of symptoms after the first injection with planned continuation of therapy.

Our case emphasizes importance of ileal intubation in coloscopy and that clinicians should consider somatostatin analogues, even with non-secretory GNETs, for control of diarrhea.

CONCLUSIONS

- GNET tumors of the GI tract occur most often in the terminal ileum which can be identified by intubation on colonoscopy.
- Debilitating diarrhea is common in carcinoid syndrome and GNET tumors.
- Despite a negative carcinoid workup, somatostatin analogs can be beneficial in managing symptoms of GNET tumors.

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