

Neuroendocrine Tumors Case 1

Dr. Menna Haider

Assistant Member

Department of Gastrointestinal Oncology

Moffitt Cancer Center

Tampa, FL

Disclosures

- None

Clinical Question

- Which of the following patients are at risk of developing diarrhea due to malabsorption?
 - A) A 65 year old man with a low grade pancreatic NET in the tail of the pancreas
 - B) A 45 year old woman who underwent a Whipple surgery for resection of a duodenal low grade NET (T3N2)
 - C) A 50 year old woman who underwent partial gastrectomy for a resection of gastric NET
 - D) A 38 year old woman who underwent partial hepatectomy for debulking of metastatic small bowel NET
 - E) All of the above

Case 1

- A 60 year old man presents for consultation to discuss management of diarrhea
- He was diagnosed with well differentiated Grade 2 NET of the cecum after presenting with progressive abdominal pain and loose stools
- At diagnosis, he had metastatic disease to the liver as well as mesenteric lymphadenopathy and a right pelvic mass
- His treatment history includes:
 - Octreotide LAR 30mg every 28 days
 - Surgical debulking: omentectomy, ileocolic resection, resection of 6cm right pelvic mass and cholecystectomy
 - He continues on octreotide LAR 30mg every 28 days
 - Screening transthoracic echo normal

Question 1

- Which of the following could be contributing to the patient's diarrhea?
 - A. Small intestinal bacterial overgrowth (SIBO)
 - B. Carcinoid syndrome
 - C. Excess bile acids entering the colon
 - D. Side effect of somatostatin analogue
 - E. All of the above

Answer and Explanation

E. All of the above

- The patient has multiple risk factors for diarrhea.
 - He may have carcinoid syndrome due to the metastatic NET
 - SSA can cause loose stools or diarrhea at a reported rate of 60%, primarily due to pancreatic malabsorption
 - Prior intestinal surgery can predispose him to SIBO
 - Right hemicolectomy and cholecystectomy can result in excess bile acid entering the colon
 - Loss of part of the colon can disrupt reabsorption of fluids

- The diarrhea is described as 8-10 watery non-bloody bowel movements
- He does not have flushing
- The diarrhea improves to 3-4 bowel movements after octreotide LAR is administered but returns one week prior to the next injection
- He does not gain satisfactory control with loperamide

What other information would you obtain?

- Behavior: How is he taking supportive medications? Is there a particular food that exacerbates the diarrhea?
- Labs: CBC, CMP, Urine 5HIAA
- Restaging: CT, Ga-68 PET

Next steps in Assessment

- CBC and CMP normal
- Urine 5-HIAA 85 (nl 0-15)
- CT 3-phase abdomen/pelvis: no progression in known liver masses or right pelvic mass

Discussion points with patient regarding symptom management

- Added a bile sequestrant (cholestyramine) due to history of right hemicolectomy and cholecystectomy
- Discussed telotristat for treating diarrhea secondary to carcinoid syndrome
- Due to the timing of diarrhea, we decreased the interval of octreotide LAR from 28 days to 21 days
- Ordered Ga68 PET for future treatment decisions

Question 2

- Which of the following is NOT correct about telotristat:
 - A. It has been shown to reduce bowel movement frequency in carcinoid syndrome compared to placebo
 - B. It has been shown improve progression free survival for small bowel NETs
 - C. It has been shown to reduce urine 5-HIAA over time
 - D. It causes more nausea at higher dose compared to 250mg PO TID

Answer and Explanation

- B. It has been shown to improve progression free survival for small bowel NETs
- TELESTAR trial was a three arm study comparing SSA plus placebo vs SSA plus two doses of telotristat (250mg and 500mg)
 - Telotristat was shown to improve frequency of bowel movements over a 12 week period
 - It was shown to reduce urine 5HIAA by 40 and 57.7mg at dose of 250mg and 500mg, respectively
 - The higher dose was associated with increased nausea

Conclusions

- NET patients are at risk for diarrhea due to multiple factors
- Diarrhea is a major quality of life issue for these patients
- Assessing for malabsorption, prior surgical treatments and medication side effects can help the clinician understand underlying etiologies
- Patient education regarding medication management is important
- Multiple resources are available to the clinician to address diarrhea