



"Am I really going to have to live like this?"': The Role of Octreotide in Patients with Persistent Nausea and Vomiting after Venting Gastrostomy Tube Placement

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Case: Ms BB is a 57 year old woman with fallopian tube cancer with multiple mesenteric and peritoneal metastases and a history of large and small bowel obstructions. She presented with nausea, vomiting, and abdominal distention. She was found to have another bowel obstruction and had an NG tube placed with improvement in her symptoms. She then went to the OR for an exploratory laparotomy. She was found to have massive carcinomatosis and ascites and it was felt that a debulking was not possible so a venting gastrostomy tube (g-tube) was placed and the operation was aborted.

Palliative care was consulted to assist with postoperative nausea and vomiting. Despite placement of the venting g-tube, the patient had persistent nausea and held a basin next to her during the interview to catch her frequent episodes of emesis. She was despondent because the surgeons had told her that the g-tube was working well and draining large amounts of fluid but that it was unable to keep up. Antiemetics were not helpful. The patient thought that there was nothing left to do and that she would have to live the rest of her life with this level of discomfort. A trial of octreotide 0.1mg subcutaneously three times daily was initiated in addition to continued drainage by her venting g-tube. She was also given around-the-clock intravenous haloperidol and PRN intravenous ondansetron. By the next day, her g-tube output had decreased and her nausea and vomiting had resolved. Her pain was controlled with a hydromorphone PCA. She was eventually able to be discharged home with plans to follow up with her outpatient oncologist to consider next steps. With her symptoms controlled, she was able to move past her initial distress and talk openly about her hopes for the future and how she wanted to spend the time she had left.

Discussion: Malignant bowel obstruction can occur with any cancer but is most commonly associated with advanced ovarian cancer, where it occurs in up to 50% of patients. It generally indicates a poor prognosis and carries a heavy symptom burden predominated by nausea, vomiting and abdominal pain. Patients with carcinomatosis, like Ms BB, are generally not candidates for surgical correction of the obstruction or endoscopic stenting. Fortunately, medical management can be very effective. Abdominal pain is

treated with opioids and nausea is treated with metoclopramide in partial obstructions and haloperidol in complete obstructions. Corticosteroids are also often used for help in symptom control and because there is some indication that they may promote resolution of the obstruction presumably by decreasing inflammation and promoting salt and water absorption. Gastrointestinal secretions can be controlled with anticholinergics (such as scopolamine) and/or somatostatin analogues (such as octreotide).

Two prospective, randomized controlled trials suggest octreotide is superior to scopolamine. Octreotide works by inhibiting the release of several gastrointestinal hormones thereby reducing secretions, slowing motility, increasing water and electrolyte absorption, and reducing bile and splanchnic blood flow. It is generally dosed 0.1-0.3mg subcutaneously TID. Some palliative care units will use continuous infusions at higher doses with anecdotal success.

Current guidelines suggest placing a venting g-tube if medical management is unsuccessful. A venting g-tube is similar to a traditional g-tube but is used solely for drainage of the gastrointestinal secretions and the liquids taken by mouth that are unable to bypass the obstruction. This drainage prevents the backup of these fluids that would normally stretch the viscus and stimulate vomiting. As experience with this intervention increases, many clinicians advocate g-tube placement early in the treatment algorithm because it can provide more complete relief of vomiting and allow more extensive pleasure feeding. Venting g-tubes can, however, place the patient at greater risk for electrolyte imbalances.

Most guidelines and many clinicians consider venting g-tube placement and medical management with octreotide/anticholinergics as two separate treatment pathways. This case highlights the fact that, occasionally, both may be needed simultaneously. Although Ms BB's venting g-tube was draining effectively, she still experienced severe nausea and vomiting, and it was not until octreotide was added to the regimen that her symptoms became controlled. This scenario is borne out in some of the data regarding venting g-tubes.



In one series of patients with gynecological malignancy and upper intestinal obstruction, 4 in 31 had incomplete resolution of their symptoms with placement of a venting g-tube alone. All 4 had complete symptom relief when octreotide was added to the regimen.

Clinicians need to be aware that venting gastrostomy tubes and medical management with octreotide/anticholinergics are not mutually exclusive treatment algorithms and a small percentage of patients will require both for adequate symptom control. Fortunately, as was the case with Ms BB, this approach can allow almost all patients with malignant bowel obstruction to regain some measure of comfort.

References:

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