By Annie Leong, Palliative Nurse Consultant

Introduction

Bowel obstruction occurs when there is a partial or complete blockage of the forward flow of gastric and intestinal contents through the gastrointestinal tract, often involving the small or large bowel (Letizia & Norton, 2003). Malignant causes of bowel obstruction are related to tumor growth within the bowel (intraluminal), wall of the bowel (intramural), or abdominal cavity (extramural) causing external compression of the bowel.

Malignant Bowel Obstruction

Malignant bowel obstruction (MBO) is a common manifestation in patients with advanced ovarian or colorectal carcinoma, but can occur with metastasis from the abdominal, pelvic or other primary tumor sites. Other causes of MBO can be treatment-related (radiation enteritis or strictures) or due to benign causes (adhesion, hernia, or fecal impaction). Multiple levels of obstruction and extensive tumor growth in the advanced stages of disease often render any surgical debulking and intestinal bypass or diversion to be challenging due to morbidity and mortality risks.

Bowel obstruction can be related to a mechanical and/or functional obstruction resulting in an
occlusion within the bowel or ineffective motility of the bowel that produces enteric symptoms (Letizia & Norton, 2003). The signs and symptoms of bowel obstruction vary depending on the site of obstruction and its cause. Medical intervention to manage MBO involves addressing symptom issues of nausea and vomiting, intestinal colic and visceral abdominal pain. Medication therapy used to address symptom control typically consists of combination therapy and may include analgesic/opioid, antiemetic, anticholinergic, corticosteroid and somatostatin analog given as appropriate via parenteral routes to ensure drug absorption (NH-PC Symptom Guide, 2008).

Despite the above well-established medication therapy available, there remains a small group of patients for whom symptoms remain refractory due to recurrence of tumor and persisting bowel obstruction. Nasogastric aspiration provides a simple and practical approach to achieve decompression and drainage in the initial stage. Prolonged medical therapy using large-bore nasogastric tubes however is unfavorable as it is often associated with patient’s discomfort, incomplete symptom control, risks of tube dislodge-ment, and frequent or prolonged hospitalization at end of life (DeEulis & Yennurajalingam, 2015). In situations where intractable volume-related symptoms occur, pharmacological intervention along with a venting gastrostomy, whenever feasible, may be a more effective palliative treatment strategy.

**Venting gastrostomy in palliative care**

Studies have demonstrated the benefits of venting gastrostomy for the decompression of MBO in patients with advanced gynecological and/or gastrointestinal malignancies (Brooksbank, Game & Ashby, 2002; Teriaky, Gregor & Nilesh, 2012; Shaw, et al., 2013; DeEulis & Yennurajalingam, 2015).

This article will review the outcomes of a small study undertaken by Teriaky and colleagues (2012). The purpose of the study was to determine the efficacy of venting percutaneous endoscopic gastrostomy (PEG) for refractory nausea and vomiting related to MBO in seven patients with extensive metastatic gastrointestinal malignancies and mild-moderate ascites present. Relief of nausea and vomiting was reported in six patients (86%) on the first day after PEG tube insertion (24 French) and was sustained throughout admission; while one patient with peritoneal carcinomatosis was still able to gain an improvement in the symptoms. Diet tolerability was still limited after PEG tube placement in three patients with gastric outlet obstruction due to extrinsic compression and thus causing early satiety. Whereas four patients with recurrent small bowel obstruction due to peritoneal carcinomatosis have improved tolerability of diet ranging from sips of fluid to a full diet. Two patients without any oral intake received intravenous hydration and did not require total parenteral nutrition.

The presence of ascites in five patients (71%) did not affect PEG tube placement, despite paracentesis not being performed prior to endoscopy. Delayed complications however occurred in one patient which involved superficial cellulitis followed by peristomal leakage of ascitic fluid. In this case, the patient was treated with antibiotics and the PEG tube was replaced 11 months later by a foley catheter used to plug the tract and decompress the obstruction with equally good results. In retrospect to the study, while ascites is not an absolute contraindica-

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Photo courtesy of Sandra Schmaltz

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tion, performing paracentesis prior to PEG tube insertion and at post-intervals may minimize this potential complication. The above overall study results were generally consistent with prior studies, thus further demonstrating the well-established use of venting PEG tubes for the decompression of MBO in patients with gastrointestinal malignancy, and highlighting its feasibility and applicability in the home environment.

Six patients (86%) were able to be discharged home, while two patients (33%) successfully palliated at home, and four patients (67%) were readmitted shortly before death due to inability to cope at home. The clinical reasons that led to these readmissions were due to weakness, dehydration, pain control, or dyspnea secondary to pleural effusion. The mean length of time from PEG tube insertion to discharge was 7 days, and the average length of time spent at home prior to readmission for in-hospital palliation was 126 days, while survival post insertion of PEG tube was 128 days. Patients generally did well on discharge home with the support of home nursing and palliative services.

In closing, MBO often defines the trajectory of end-stage abdominal malignancy and carries a heavy symptom burden predominated by nausea, vomiting and abdominal pain. Minimally invasive procedures such as a venting gastrostomy can produce significant benefits for patients and their families despite the brief life expectancy. With their symptoms better controlled, patients are able to move past their distress and hence more ready to discuss hopes for the future and how they may best spend their remaining time.

References:

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We are pleased to announce that Jennifer Kenny has joined the Regional Palliative Care Consultation Team, in the role of Palliative Care Nurse Consultant - NW. Jenny will be providing palliative care consultation support to the NW HSDA, but may also provide coverage to other areas of NH as required. Jenny is based in Terrace but her final work location has not been determined; she will send out her contact details when they are finalized, but in the interim can be reached by email at jennifer.kenny@northernhealth.ca.

The Palliative Care Consultation Team is very pleased to have Jenny join our team. Jenny started in her role June 19 and will be orientating for the next few months. Jenny will gradually start into her role and will be making contact with the NW communities and sites.

Please share this information with your staff/colleagues as appropriate.
Palliative Care Education Sessions
WebEx/Teleconference

A team of experts in palliative care will be presenting a series of interdisciplinary webinars on palliative care. All health professionals from all care settings are invited to attend. Webinars are recorded and provided on OurNH and the external website at the end of each month.

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<td>July</td>
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<td>Tools and Communication for Physical Comfort (For: PSWs and Care–</td>
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If you are interested in having your name added to our distribution list, please contact sandra.schmaltz@northernhealth.ca.

Please note: schedule subject to change

LEAP CORE

In June the Palliative Care Consultation team provided the LEAP CORE education to 35 nurses from the Northern Interior and 17 members of the Interdisciplinary Care Team in the North East.

The LEAP CORE provides learners with the essential, basic competencies of the palliative care approach that will support them in caring for their patients who have been diagnosed with life-limiting progressive illnesses.

Please note:

It is now strongly advised and recommended that prior to attending the Victoria Hospice Medical Intensive course, staff have completed the Pallium LEAP Core.

Watch our newsletter for more dates this fall!