

Types and Symptoms

Type	Symptoms
esophageal	<ul style="list-style-type: none"> mild nausea preceding dysphagia vomiting or regurgitation
gastric outlet	<ul style="list-style-type: none"> severe nausea frequent vomiting epigastric abdominal distension dyspepsia
small bowel	<ul style="list-style-type: none"> nausea and cramps abdominal distension frequent vomiting initially, often bile stained
colon	<ul style="list-style-type: none"> slowly progressive abdominal distension nausea and vomiting as late symptoms vomitus may be feculent cramps early on
rectum	<ul style="list-style-type: none"> slowly progressive distension alternating constipation and diarrhea nausea and vomiting not pronounced until quite late

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All investigations and management options must be predicated on where the patient is at in the trajectory of this illness. Patients with very advanced disease and/or who are not surgical candidates should not be subjected to needless investigations or hospitalizations.

Investigations

- Three views of abdomen
- Hypaque or barium bowel studies if appropriate where surgery possible and/or where cause unknown

Management

I. Surgical management

- First obstruction and not in the very terminal phase of illness, surgical consultation
- Surgical possibilities include:
 - Resection of obstructed bowel,
 - Bypass procedures such as gastroenterostomy, enteroenterostomies,
 - Decompression procedures such as an ileostomy and colostomy.

II. Esophageal obstruction

- Esophageal stents
- A gastrostomy tube to maintain nutrition and hydration. Also the option of no feeding tube.

III. Gastric outlet or duodenal obstruction

- Early surgical intervention with bypass procedure.
- Double lumen gastrostomy tube to allow gastric drainage and feedings.
- Octreotide (see below) may decrease secretions and symptoms.
- A gastrostomy for drainage with or without another enterostomy for feeding.

IV. Small or large bowel obstruction

- Nasogastric tubes can be avoided in most patients.
- Potent opioids by subcutaneous infusion or by intermittent subcutaneous injections using an in-situ butterfly needle with injection port or subcutaneous administration set
- Anti-emetic/anti-nauseant medication:
 - Haloperidol 0.5-5 mg q6-8h sc/IV or by sc infusion (maximum 15 mg daily)
 - Prochlorperazine 5-10 mg im or pr q6h - avoid the IV route because of dystonic reactions
 - Dimenhydrinate 50-75 mg q4-6 h im or IV - second line drug.

- 5 HT3 receptor antagonists such as Ondansetron are ineffective.
- Anti-motility/antispasmodic agents:
 - Oral Loperamide 4-6 mg po q4h for the first 24 hrs and then prn
- If ineffective:
 - Hyoscine butylbromide by constant subcutaneous infusion starting at 30-60 mg per day.
- Corticosteroids
 - Dexamethasone at an initial dose of 16 mg per day IV to reduce edema.
- Octreotide
- Many will respond to conservative management.
- Hydration support with sufficient saline and potassium.
- Once resolved, soft or liquid foods with sufficient doses of osmotic stool softeners. Avoid any bowel stimulants or pro-kinetic agents.

V. Unresolved complete bowel obstruction

- Significant management and ethical issues and no clear answers. Careful counseling of patients and their families.
- Intravenous hydration should be short-term only. Counsel that intravenous fluids are not nutrition, the patient's condition will not improve with fluid therapy, and there is no evidence that total parenteral nutrition (TPN) is appropriate for these patients.
- Support from palliative care consultants.

Octreotide

- An effective somatostatin analogue which is becoming one of the standard treatments in bowel obstruction.

Effects:

- Decreases bowel motility
- Increases absorption of fluids and electrolytes from the bowel
- Decreases gastrointestinal secretions

Dosage:

- 100 to 500 µg every 8-12 hours sc
- The higher dose range is necessary often only for a few days
- Can be given as continuous subcutaneous infusion
- Once symptoms are controlled, the dose should be gradually reduced unless symptoms reappear

HOT SPOT

MANAGEMENT OF RADIOTHERAPY-INDUCED ACUTE GASTROINTESTINAL TOXICITIES

Area of concern	Oral cavity	Esophagus	Stomach		Small bowel/ large bowel	Anal/rectum	Perianal skin
Manifestations	Dry mouth, oral mucositis, ulcers	Esophagitis	Gastritis	Nausea, Vomiting	Diarrhea, bowel obstruction	Proctitis	Skin reaction
Common radiotherapy areas	Head and neck cancers, mantle field	Esophagus, lung, mantle fields, T spine mediastinum	Stomach, spine T10-L3, mantle and upper abdomen, whole abdomen (e.g. ovary) hemibody or total body		Abdomen and pelvis	Pelvis, prostate, bladder, cervix endometrium	Pelvis, perianal skin
Important clinical considerations	Exclude and treat any oral candidiasis	Odynophagia, dysphagia	Later onset, manifest as dyspepsia, nausea and vomiting	Typically commence within 30 minutes of first fraction of XRT, resolve after completion of radiotherapy	Examine for acute abdomen and dehydration (indications that more aggressive therapy, including hospitalization and discontinuation of radiotherapy is warranted)	Careful history to differentiate between these conditions, frequently mistaken as diarrhea; 1. small, frequent bowel movements with proctitis 2. small volume watery bowel movements due to constipation with overflow (XR may be necessary)	Watch out for perianal abscesses
Preventative¹	Mouth washes with baking soda 2-3x/day Dental check-up Avoid smoking, alcohol	Dietary counselling against alcohol, diet adjustments for odynophagia	Prophylactic antiemetics, depending on degree of emetogenicity (start day of radiotherapy) • Ondansetron 8 mg od-bid • Stemetil 10 mg q4h prn • Gravol 50 mg q4h prn • (Decadron 2 mg tid in selected patients)		Counselling to reduce fibre content in their diet when loose bowel movements begin	Optimize management of any diarrhea or constipation	Ensure optimal skin condition pre-treatment, optimize treatment of any hemorrhoids, incomplete wound healing. Use of corn starch for normal skin to minimize skin reaction
Treatment of symptoms²	Tantum mouth washes, magic mouth wash* Analgesics (e.g. codeine/morphine elixir)	Sulcrate liquid, analgesics (e.g. codeine, or morphine elixir) Mucaine	• Zantac 150 mg bid • Losec 20 mg bid	• Ondansetron 8 mg bid • Decadron 2 mg tid • ensure hydration	• Lomotil 2.5 mg od • Immodium 2 mg after each loose BM (max. 16 mg.) • Questran	• Anusol HC suppositories • Cortifoam enemas • Proctofoam enemas 2-3x/day Treat constipation or diarrhea	• Sitz baths • Dry desquamation: Corn starch to skin, hydrocortisone 1% • Moist desquamation: Flamazine, burrosol soaks 2-3x/day

1. Patients at high risk of developing toxicities should be considered for preventative interventions to minimize toxicities.

2. Patients with grade 1-2 (mild to moderate) toxicities can be managed with these interventions. Patients with grade 3-4 (severe to life-threatening) toxicities may require hospitalization and discontinuation of radiotherapy and should be managed with the radiation oncologist.

* Magic mouth wash: Mixture of diphenhydramine, dexamethasone, nystatin, tetracycline, water (for details call T-SRCC pharmacy).

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