Review Article

Recommendations for Bowel Obstruction With Peritoneal Carcinomatosis

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Abstract

This article reports on the clinical practice guidelines developed by a multidisciplinary group working on the indications and uses of the various available treatment options for relieving intestinal obstruction or its symptoms in patients with peritoneal carcinomatosis. These guidelines are based on a literature review and expert opinion. The recommended strategy involves a clinical and radiological evaluation, of which CT of the abdomen is a crucial component. The results, together with an analysis of the prognostic criteria, are used to determine whether surgery or stenting is the best option. In most patients, however, neither option is feasible, and the main emphasis, therefore, is on the role and administration of various symptomatic medications such as glucocorticoids, antiemetic agents, analgesics, and antisecretory agents (anticholinergic drugs, somatostatin analogues, and proton-pump inhibitors). Nasogastric tube feeding is no longer used routinely and should instead be discussed on a case-by-case basis. Recent studies have confirmed the efficacy of somatostatin analogues in relieving obstruction-related symptoms such as nausea, vomiting, and pain. However, the absence of a marketing license and the high cost of these drugs limit their use as the first-line treatment, except in highly selected patients (early recurrence). When these

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medications fail to alleviate the symptoms of obstruction, venting gastrostomy should be considered promptly. Rehydration is needed for virtually every patient. Parenteral nutrition and pain management should be adjusted according to the patient needs and guidelines. J Pain Symptom Manage 2014;48:75–91.

Key Words
Peritoneal carcinomatosis, malignant bowel obstruction, palliative care, supportive care, somatostatin analogues, venting gastrostomy, stents, proton-pump inhibitors, corticosteroids

Introduction

Malignant bowel obstruction is described as the association of clinical and imaging evidence of bowel obstruction and a bowel obstruction beyond the ligament of Treitz with incurable intra-abdominal cancer or extra-abdominal primary cancer with intraperitoneal spread (notably breast cancer or melanoma).[1] In some studies, this complication is said to occur in 10%–28% of all colorectal cancers and in 20%–50% of all ovarian cancers.[2–4] Peritoneal carcinomatosis results from tumor cells in the peritoneal cavity. Tumor cells may come from a primary tumor in the peritoneum but in most cases come from the metastasis of abdominal and pelvic malignancies.

Clinical signs usually include abdominal pain or colitis, abdominal distension, nausea, vomiting, and no gas or stools. These symptoms vary depending on the level of the obstruction (Table 1). In patients with advanced or end-stage digestive or gynecologic cancers, bowel obstruction is usually insidious. It evolves over several weeks, with spontaneous remission between episodes.[5]

Bowel obstruction can be either mechanical or functional. Extrinsic mechanical obstruction is the most frequent. It can result from the compression of the digestive lumen by a primary cancerous mass or metastasis (mesenteric or epiploic), radiation-induced fibrosis, or abdominal or pelvic adhesions. Mechanical obstruction can be endoluminal, resulting from a tumor obstructing the bowel lumen or from infiltration because of gastric linitis. Functional obstruction resulting from an impairment of intestinal motility is frequent in patients with tumor infiltration of the mesentery or nerves involved in intestinal motility, in patients with paraneoplasic neuropathy resulting from a secondary paralytic ileus (intra-abdominal infection, intraperitoneal effusion, and intraperitoneal or retroperitoneal pain), and in patients receiving opioid or anticholinergic drugs.

Because of the pathophysiological mechanisms involved, the diagnosis and treatment of bowel obstruction may be challenging. Depending on the patient's general health and response to previous treatments and the location and mechanism of the obstruction and the disease evolution, the goal can either be obstruction relief if possible (with or without surgery) or if not symptom management alone.

These specificities have led several learned societies to consider new studies and to update clinical practice guidelines,[6,7] with the aim of supporting surgeons, gastroenterologists, oncologists, and all medical teams and care providers. The recommendations are related to bowel obstruction with advanced peritoneal carcinomatosis for which complete cytoreductive surgery and intraperitoneal hyperthermic chemoperfusion are no longer relevant. Pain management, rehydration, and parenteral nutrition are not covered here; readers are invited to look at appropriate expert panel evaluations and guidelines.[8–11]

Methods

These recommendations were established following the methodological guide for clinical practice guidelines (CPG) recommended by the French Health Authority (HAS).[12] Briefly, the purpose of the CPG method is to produce a small number of concise unambiguous recommendations graded according to the identified levels of evidence that address the questions asked. The CPG method involves two groups of active participants and has four phases. Because the aim was to develop a practice guideline, a preliminary project scoping