

**FAST FACTS AND CONCEPTS #119
INVASIVE TREATMENT OPTIONS FOR MALIGNANT BOWEL OBSTRUCTION**

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Background

Malignant bowel obstruction (MBO) is a common problem in patients with ovarian and colorectal cancers. MBO also occurs with other abdominal (e.g. gastric and pancreatic) and non-abdominal malignancies. MBO may be related to cancer (intraluminal or extraluminal tumor growth), its treatment (e.g. radiation enteritis), or benign etiologies (e.g. adhesions or internal hernias). Invasive treatment options should be considered for all patients except those who are actively dying (see *Fast Fact #3*). In cases where surgical management is not feasible, medical management can be very effective at relieving symptoms (see *Fast Fact #45*).

Goals of Treatment

The goals of treatment include relieving nausea and vomiting, allowing oral intake, alleviating pain, and permitting the patient to return to their chosen care setting. Although it is recognized that improvement in quality of life after surgery is variable (42-85%), there is no consistent parameter used to determine this clinical outcome. Operations may offer an advantage of an increased survival.

Surgical Approaches

The optimal procedure is that which offers the quickest, safest, and most efficacious ability to alleviate the obstruction and improve symptoms. Options include bowel resection (which may lead to the best overall outcome), bypass, or a gastrostomy. An intestinal stoma may be necessary after resection or to adequately bypass the blockage. Laparoscopic procedures may be attempted, although this approach may be difficult due to adhesions, carcinomatosis, or bowel dilatation. Cytoreductive procedures (resection of intraperitoneal tumor) frequently carry a high morbidity and usually are only considered with very low grade tumors, such as psuedomyxoma peritonii. Many patients are deemed inoperable (6.2-50%), with the most frequent reasons being extensive tumor spread, multiple partial obstructions, and inability to correct obstructions surgically.

Surgical risks must be carefully considered prior to an operation, as morbidity (42%) and mortality (5-32%) are common, and the re-obstruction rate is high (10-50%). Poor prognostic indicators for surgical intervention include ascites, carcinomatosis, palpable intra-abdominal masses, multiple bowel obstructions, prior obstructions and very advanced disease with poor performance status.

Endoscopic Approaches

Endoscopic procedures are suited for patients who are poor operative candidates or who decline an open operative intervention. The major approaches include stenting and percutaneous endoscopic gastrostomy (PEG) tube placement. Stenting may include procedures to initially canalize the lumen (e.g. laser or balloon dilatation). Endoluminal wall stents have a high success rate for relief of symptoms (64-100%) in complete and incomplete colorectal obstructions, and in over 70% of upper intestinal malignant obstructions including gastric outlet, duodenal and jejunal obstructions. While risks include perforation (0-15%), stent migration (0-40%), or re-occlusion (0-33%), stents can frequently lead to adequate palliation for long periods of time. Stent occlusion by tumor in-growth is usually amenable to another endoscopic intervention.

PEG tubes are generally well tolerated “venting” procedures that can alleviate symptoms of intractable vomiting and nausea for upper GI obstructions. In combination with other medical techniques, both open and percutaneous gastrostomy offer the possibility of intermittent oral intake. Complications are rare, even when puncturing other organs. The presence of significant ascites is a relative contraindication.

References:

1. Feuer DJ, Broadley, KE, Shepherd JH, Barton DP. Systematic review of surgery in malignant bowel obstruction in advanced gynecological and gastrointestinal cancer. *Gynecol Oncol*. 1999; 75:313-322.
2. Harris GJC, Senagore AJ, Lavery IC, Fazio VW. The management of neoplastic colorectal obstruction with colonic endoluminal stenting devices. *Am J Surg*. 2001; 181:499-506.
3. Soetikno RM, Carr-Locke DL. Expandable metal stents for gastric outlet, duodenal, and small intestinal obstruction. *Gastrointestinal Endoscopy Clinics of North America*. 1999; 9:447-458.
4. Campagnutta E, Cannizzaro R. Percutaneous endoscopic gastrostomy (PEG) in palliative treatment of non-operable intestinal obstruction due to gynecologic cancer: a review. *Eur J Gynaecol Oncol*. 2000; 21:397-402.

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