Management of Large Bowel Obstruction

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Algorithmic Approach

A. Since large bowel obstructions (LBO) can result from a variety of both benign (e.g., diverticular disease, ischemic colitis) and malignant (e.g., colorectal cancer, extrinsic compression from ovarian cancer) diseases, a detailed history is essential for determining the diagnosis. Important factors to consider include the onset and duration of obstructive symptoms, as well as any associated symptoms. Patients will report complaints of abdominal pain and distention, as well as progressively worsening obstipation. Competency of the ileocecal valve can impact patient presentation: patients with competent valves are at risk for a closed-loop obstruction and are less likely to have nausea/vomiting, which is commonly seen in large bowel obstructions [1].

B. A thorough physical exam evaluating for signs of peritonitis and systemic toxicity should be performed, in additional to obtaining laboratory studies to assess for electrolyte derangements or signs of bowel ischemia. Initial radiographic evaluation with an acute abdominal series can be obtained, in order to (1) evaluate for signs of perforation, (2) assess the degree of colonic distention, and (3) potentially identify an etiology, such as a volvulus [1].

C. In patients with systemic toxicity or signs of free perforation, intravenous broad-spectrum antibiotics and emergent exploratory laparotomy are indicated. If unresectable disease (e.g., carcinomatosis) or disease that requires initial medical treatment (e.g., neoadjuvant therapy for obstructing rectal cancer) is encountered, then proximal diversion is an appropriate procedure. If resectable disease is found, resection of the diseased intestine is indicated, along with careful inspection of the remaining large intestine for either ischemia or synchronous lesions.

D. In hemodynamically stable patients with a clear diagnosis, such as colonic volvulus (10–15% of LBO), acute colonic pseudoobstruction, or foreign body impaction, further management should proceed according to the underlying etiology of bowel obstruction [1–3].

E. In hemodynamically stable patients without signs of perforation, but for whom the diagnosis remains unclear, further imaging should be obtained. Either contrast enema (particularly for left-sided lesions) or CT scans can be helpful in determining the etiology of the

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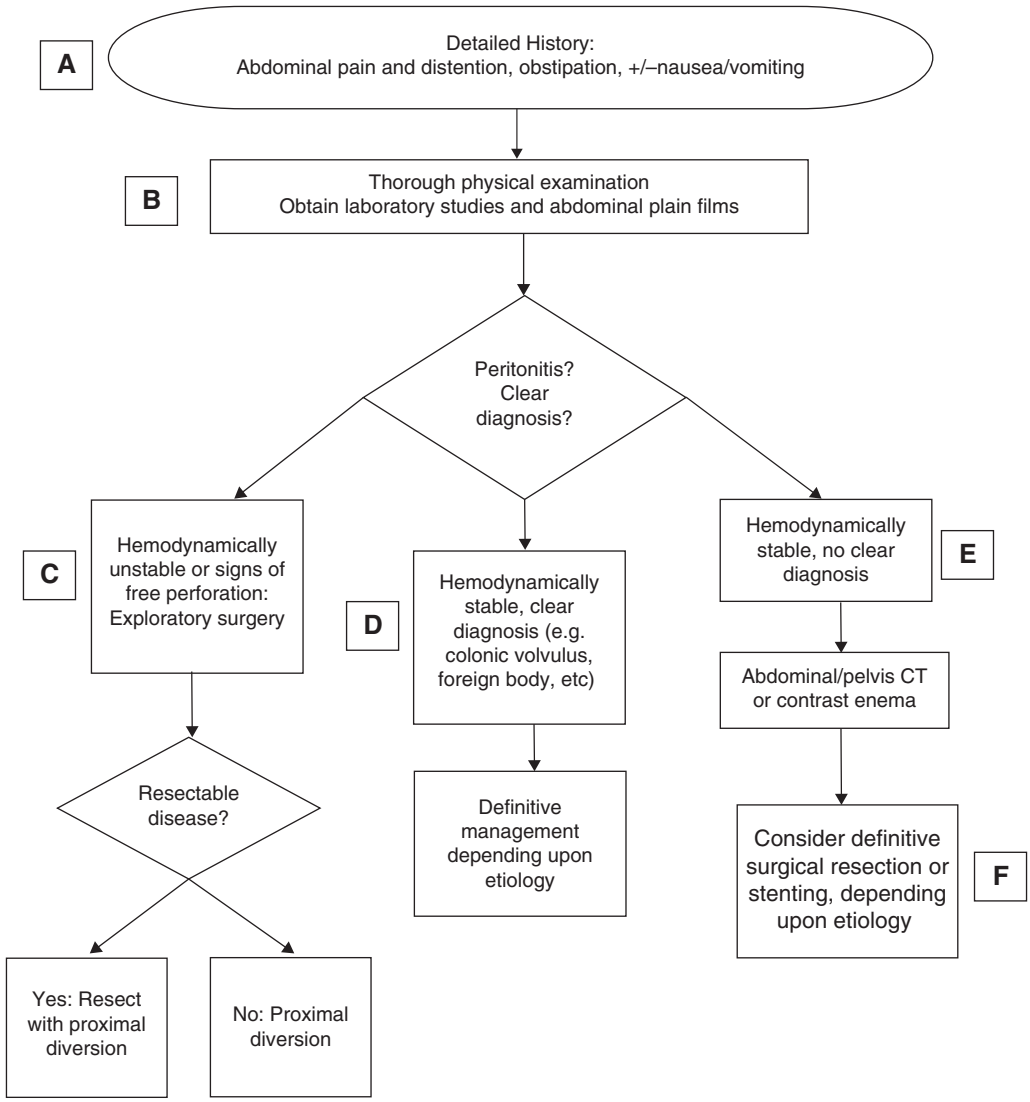
obstruction. Colonoscopy, preferably with CO2 insufflation, can also be used to obtain a tissue diagnosis in patients with suspected intraluminal disease, such as colorectal cancer (~50% of LBO) [1].

F. Further management of LBO in the nonemergent setting is dependent upon etiology. In general, the two main options are surgical (either resection or diversion) or endoscopic stenting, the latter of which can be used as a bridge to surgery or as definitive palliation. Stents offer lower initial morbidity than surgical resection, with the possibility of converting a more urgent surgery to an elective procedure with a lower likelihood of requiring a stoma [4]. However, stents are often less effective at relieving the initial obstruction (53% vs. 99%) and have high rates of reobstruction [5]. Since stents are safest when used as a bridge to elective surgery within several weeks, careful consideration of the goals of care is necessary in choosing how to relieve the patient's obstructive symptoms.



Algorithm 56.1

References

1. Steele SR, Hull T, Read TE, Saclarides TJ, Senagore AJ, Whitelow CB, editors. The ASCRS textbook of colon and rectal surgery. 3rd ed. Arlington Heights: Springer; 2016.
2. Vogel JD, Feingold DL, Stewart DB, et al. Clinical practice guidelines for colon volvulus and acute colonic pseudo-obstruction. Dis Colon Rectum. 2016;59(7):589–600.
3. Chudzinski AP, Thompson EV, Ayscue JM. Acute colonic pseudoobstruction. Clin Colon Rectal Surg. 2015;28(2):112–7.
4. van Hooft JE, van Halsema EE, Vanbiervliet G, et al. Self-expandable metal stents for obstructing colonic and extracolonic cancer: European Society of Gastrointestinal Endoscopy (ESGE) clinical guideline. Endoscopy. 2014;46(11):990–1053.
5. Sagar J. Colorectal stents for the management of malignant colonic obstructions. Cochrane Database Syst Rev. 2011(11):CD007378.