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Indications

Cecostomy is an alternative to resection when there is impending perforation of the cecum secondary to a colonic obstruction or ileus. Colonoscopic decompression is a better alternative for cases of pseudo-obstruction. Cecostomy is used only when other methods have failed.

Preoperative Preparation

Perioperative antibiotics
Nasogastric suction
Fluid resuscitation

Pitfalls and Danger Points

Cecostomy may fail to produce adequate decompression. Limited exploration through a small incision may miss an area of perforation elsewhere. Fecal matter may spill into the peritoneal cavity.

Operative Strategy

There are two kinds of cecostomy. A simple tube cecostomy is constructed in a manner analogous to a Stamm gastrostomy (see Chap. 36). Even a large tube is easily plugged by fecal debris, and this kind of cecostomy primarily allows decompression of gas and liquid. The main advantage of

tube cecostomy is that when the cecostomy is no longer needed, removing the tube frequently results in spontaneous closure. The skin-sutured cecostomy described here provides more certain decompression but requires formal closure. In the attempt to avoid fecal contamination of the abdominal cavity during this operation, the cecum is sutured to the external oblique aponeurosis before being incised.

Documentation Basics

Indications and findings

Operative Technique

Skin-Sutured Cecostomy

Incision

Make a transverse incision about 4–5 cm long over McBurney's point and carry it in the same line through the skin, external oblique aponeurosis, the internal oblique and transversus muscles, and the peritoneum. Do not attempt to split the muscles along the line of their fibers.

Exploration of Cecum

Rule out patches of necrosis in areas beyond the line of incision by carefully exploring the cecum. To accomplish this without the danger of rupturing the cecum, insert a 16-gauge needle attached to an empty 50 cc syringe, which releases some of the pressure. After this has been accomplished, close the puncture wound with a fine suture. Elevate the abdominal wall with a retractor to expose the anterior and lateral walls of the cecum. If the exposure is inadequate, make a larger incision. If a necrotic patch of cecum can be identified, use this region as the site for the cecostomy and excise it during the procedure.

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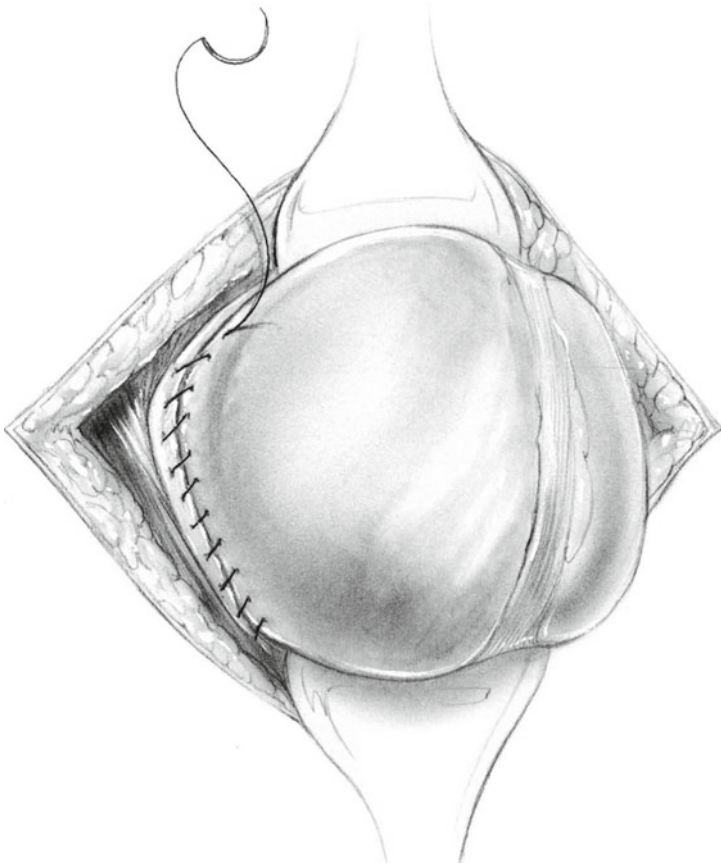


Fig. 61.1



Fig. 61.2

Cecal Fixation

Suture the wall of the cecum to the external oblique aponeurosis with a continuous 4-0 PG suture on a fine needle to prevent any fecal spillage from reaching the peritoneal cavity (Fig. 61.1). If the incision in the external oblique aponeurosis

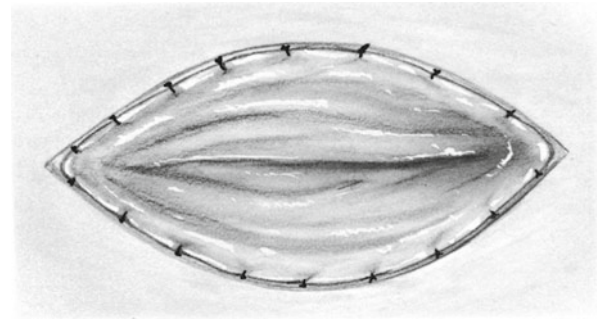


Fig. 61.3

is longer than 4–5 cm, narrow it with several PG sutures. Narrow the skin incision also to the same length with several fine PG subcuticular sutures.

Mucocutaneous Suture

Make a transverse incision in the anterior wall of the cecum 4 cm long (Fig. 61.2) and aspirate liquid stool and gas. Then suture the full thickness of the cecal wall to the subcuticular layer of the skin with a continuous or interrupted suture of 4-0 PG on an atraumatic needle (Fig. 61.3). Place a properly fitted ileostomy bag over the cecostomy at the conclusion of the operation.

Tube Cecostomy

The abdominal incision and exploration of the cecum for a tube cecostomy are identical to those done for a skin-sutured cecostomy. Insert a purse-string suture in a circular fashion on the anterior wall of the cecum using 3-0 atraumatic PG. The diameter of the circle should be 1.5 cm. Insert a second purse-string suture outside the first, using the same suture material. Then make a stab wound in the middle of the purse-string suture; insert a 36 F soft rubber tube into the suture and for about 5–6 cm into the ascending colon. Tie the first purse-string suture around the rubber tube; then tie the second purse-string suture so as to invert the first. It is helpful if several large side holes have been cut first in the distal 3–4 cm of the rubber tube.

Select a site about 3 cm above the incision for a stab wound. Bring out the rubber tube through this stab wound and suture the cecum to the peritoneum around the stab wound. Use four interrupted 3-0 PG atraumatic sutures to keep the peritoneal cavity free of any fecal matter that may leak around the tube.

Close the abdominal incision in a single layer by the modified Smead-Jones technique using interrupted 1-0 PDS sutures. Do not close the skin wound; insert several 4-0 nylon interrupted skin sutures, which will be tied 3–5 days after operation.

Postoperative Care

Manage the skin-sutured cecostomy in the operating room by applying an adhesive-backed ileostomy-type disposable plastic appliance to it. The tube cecostomy requires repeated irrigation with saline to prevent it from being plugged by fecal particles. It may be removed after the tenth postoperative day if it is no longer needed.

Complications

The major postoperative complication of this procedure is peristomal sepsis, as the possibility of bacterial contamination of the abdominal incision cannot be completely

eliminated. Nevertheless, peristomal sepsis is much less common than one would anticipate with an operation of this type.

Further Reading

- Donkol RH, Al-Nammi A. Percutaneous cecostomy in the management of organic fecal incontinence in children. *World J Radiol.* 2010; 28:463–7.
- Duh QY, Way LW. Diagnostic laparoscopy and laparoscopic cecostomy for colonic pseudo-obstruction. *Dis Colon Rectum.* 1993; 36:65.
- Rodriguez L, Flores A, Gilchrist BP, Goldstein AM. Laparoscopic assisted percutaneous endoscopic cecostomy in children with defecation disorders (with video). *Gastrointest Endosc.* 2011;73: 98–102.