

TABLE 353-2 AMERICAN SOCIETY OF ANESTHESIOLOGISTS PHYSICAL STATUS CLASSIFICATION SYSTEM

P1	A normal healthy patient
P2	A patient with mild systemic disease
P3	A patient with severe systemic disease
P4	A patient with severe systemic disease that is a constant threat to life
P5	A moribund patient who is not expected to survive without the operation
P6	A declared brain-dead patient whose organs are being removed for donor purposes

colostomy. However, patients on immunosuppressive therapy, in chronic renal failure, or with a collagen-vascular disease have a fivefold greater risk of perforation during recurrent attacks. Surgical therapy is indicated in all low-surgical-risk patients with complicated diverticular disease.

The goals of surgical management of diverticular disease include controlling sepsis, eliminating complications such as fistula or obstruction, removing the diseased colonic segment, and restoring intestinal continuity. These goals must be obtained while minimizing morbidity rate, length of hospitalization, and cost in addition to maximizing survival and quality of life. **Table 353-3** lists the operations most commonly indicated based on the Hinchey classification and the predicted morbidity and mortality rates. Surgical objectives include removal of the diseased sigmoid down to the rectosigmoid junction. Failure to do this may result in recurrent disease. The current options for uncomplicated diverticular disease include an open sigmoid resection or a laparoscopic sigmoid resection. The benefits of laparoscopic resection over open surgical techniques include early discharge (by at least 1 day), less narcotic use, less postoperative complications, and an earlier return to work.

The options for the surgical management of complicated diverticular disease (**Fig. 353-3**) include the following: (1) proximal diversion of the fecal stream with an ileostomy or colostomy and sutured omental patch with drainage, (2) resection with colostomy and mucous fistula or closure of distal bowel with formation of a Hartmann's pouch, (3) resection with anastomosis (coloproctostomy), or (4) resection with anastomosis and diversion (coloproctostomy with loop ileostomy or colostomy). Laparoscopic techniques have been used for complicated diverticular disease; however, higher conversion rates to open techniques have been reported.

Patients with Hinchey stages I and II disease are managed with percutaneous drainage followed by resection with anastomosis about 6 weeks later. Current guidelines put forth by the American Society of Colon and Rectal Surgeons suggest, in addition to antibiotic therapy, CT-guided percutaneous drainage of diverticular abscesses that are greater than 3 cm and have a well-defined wall. Abscesses that are less than 3 cm may resolve with antibiotic therapy alone. Contraindications to percutaneous drainage are no percutaneous access route, pneumoperitoneum, and fecal peritonitis.

TABLE 353-3 OUTCOME FOLLOWING SURGICAL THERAPY FOR COMPLICATED DIVERTICULAR DISEASE

Hinchey Stage	Operative Procedure	Anastomotic Leak Rate, %	Overall Morbidity Rate, %
I	Resection with primary anastomosis without diverting stoma	3.8	22
II	Resection with primary anastomosis +/- diversion	3.8	30
III	Hartmann's procedure vs diverting colostomy and omental pedicle graft	—	0 vs. 6 mortality
IV	Hartmann's procedure vs diverting colostomy and omental pedicle graft	—	6 vs. 2 mortality

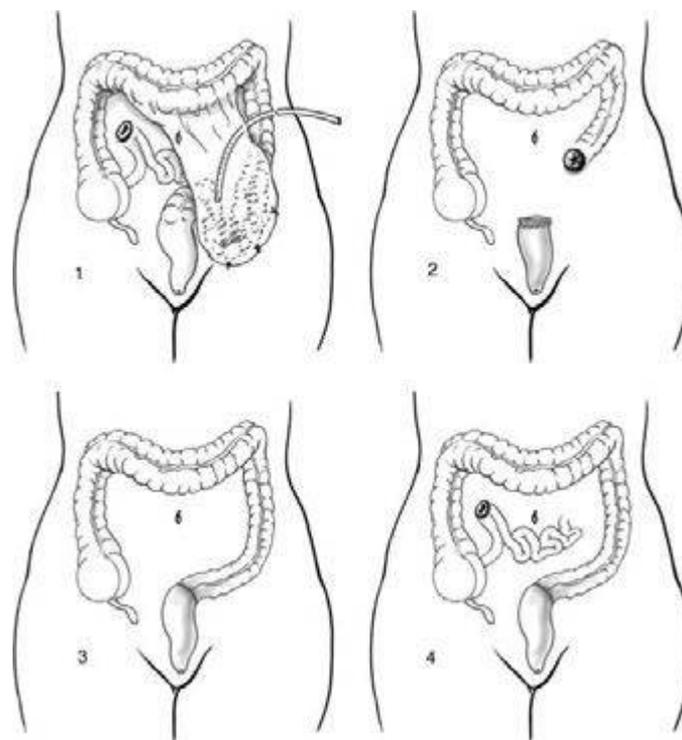


FIGURE 353-3 Methods of surgical management of complicated diverticular disease. (1) Drainage, omental pedicle graft, and proximal diversion. (2) Hartmann's procedure. (3) Sigmoid resection with coloproctostomy. (4) Sigmoid resection with coloproctostomy and proximal diversion.

Urgent operative intervention is undertaken if patients develop generalized peritonitis, and most will need to be managed with a Hartmann's procedure (resection of the sigmoid colon with end colostomy and rectal stump). In selected cases, nonoperative therapy may be considered. In one nonrandomized study, nonoperative management of isolated paracolic abscesses (Hinchey stage I) was associated with only a 20% recurrence rate at 2 years. More than 80% of patients with distant abscesses (Hinchey stage II) required surgical resection for recurrent symptoms.

Hinchey stage III disease is managed with a Hartmann's procedure or with primary anastomosis and proximal diversion. If the patient has significant comorbidities, making operative intervention risky, a limited procedure including intraoperative peritoneal lavage (irrigation), omental patch to the oversewn perforation, and proximal diversion of the fecal stream with either an ileostomy or transverse colostomy can be performed. No anastomosis of any type should be attempted in Hinchey stage IV disease. A limited approach to these patients is associated with a decreased mortality rate.

Recurrent Symptoms Recurrent abdominal symptoms following surgical resection for diverticular disease occur in 10% of patients. Recurrent diverticular disease develops in patients following inadequate surgical resection. A retained segment of diseased rectosigmoid colon is associated with twice the incidence of recurrence. The presence of irritable bowel syndrome may also cause recurrence of initial symptoms. Patients undergoing surgical resection for presumed diverticulitis and symptoms of chronic abdominal cramping and irregular loose bowel movements consistent with irritable bowel syndrome have poorer functional outcomes.

COMMON DISEASES OF THE ANOECTUM

RECTAL PROLAPSE (PROCIDENTIA)

Incidence and Epidemiology Rectal prolapse is six times more common in women than in men. The incidence of rectal prolapse peaks in women >60 years. Women with rectal prolapse have a higher incidence