

ENTEROCUTANEOUS FISTULAS - 2

Fistula: any abnormal anatomic connection between two epithelialized surfaces.

Etiology:

- 75-85% occur after an abdominal operation involving either an anastomosis under difficult circumstances, a technical mistake, or inadvertent enterotomy during a lysis of adhesions.
 - Also frequently associated with sepsis, malnutrition, immune suppression
 - Spontaneous fistulas account for 15% to 25% of fistulas and arise in association with inflammatory processes, cancer, and radiation treatment.
 - Inflammatory processes include diverticulitis, IBD, PUD, and appendicitis.
- Postoperative fistula carries a mortality of 15% to 20% if not aggressively managed.
- Technical factors to avoid fistulas: gentle handling of tissue, avoiding tension of an anastomosis, ensuring adequate blood supply, good visualization of the anastomosis, and proper bowel preparation

Fistula Classification:

Anatomic	Physiologic
Internal (e.g., ileocolic, colovesical)	High output: >500 mL/day
External (e.g., enterocutaneous)	Moderate output: 200–500 mL/day
	Low output: <200 mL/day

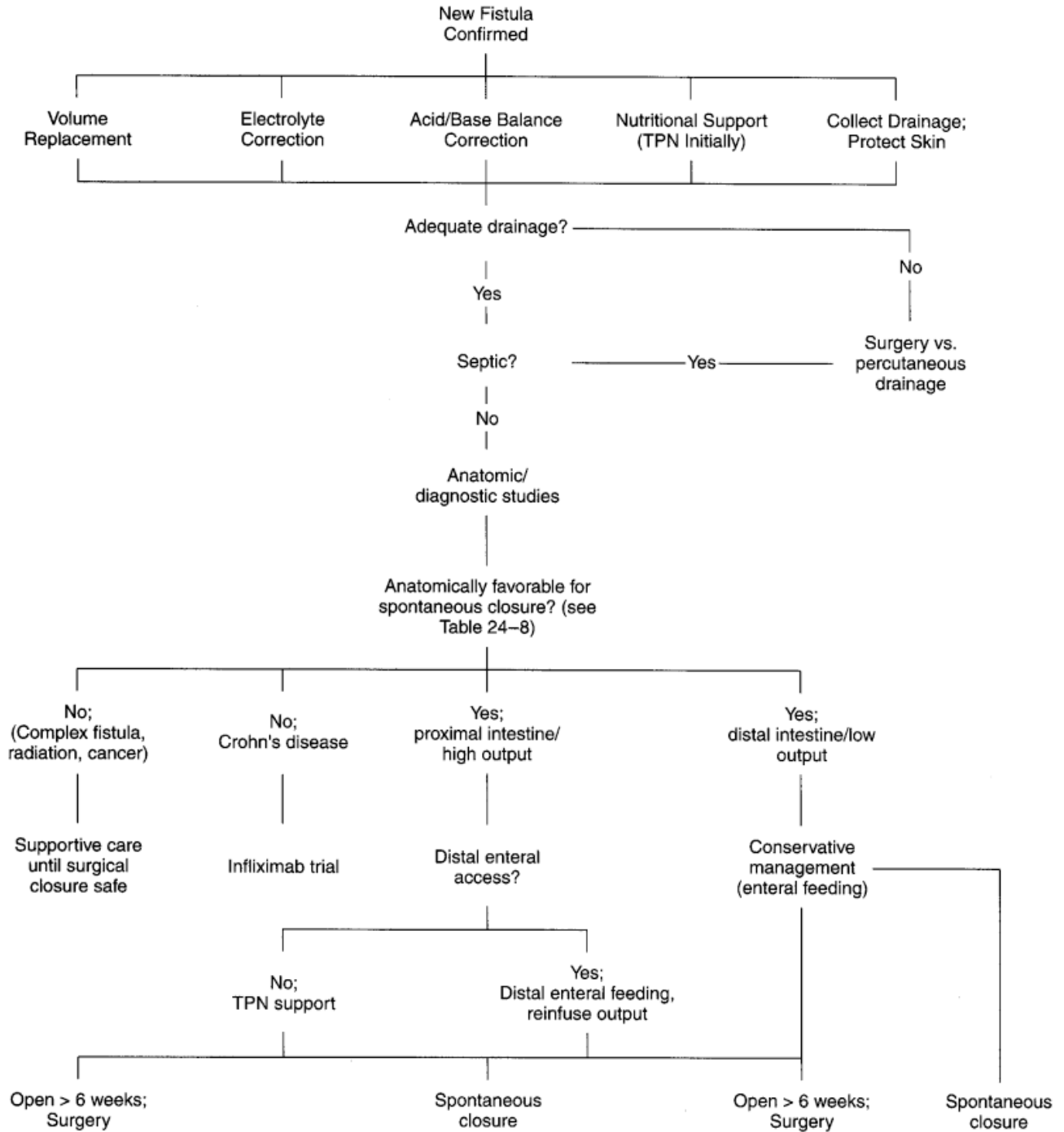
Presentation and Management:

- Small bowel or colonic fistula to the skin: initial erythema, abscess, and efflux of GI contents.
- Diagnosis:
 - Fistulagram – placement of a catheter into the fistula with contrast material to identify the exact site
 - CT – for establishment of underlying abscesses, cancer, or other abnormality
- Early goals in the management of new enterocutaneous fistulas
 - Restore intravascular volume and correct electrolyte imbalances & acid-base disturbances
 - Enterostomal therapy to protect skin – suction catheter or stoma bag
 - NPO with NGT suction
 - Nutritional support – TPN should be started in virtually all patients with an enterocutaneous fistula.
 - In low output fistula (less than 200 mL/24 hr), enteral feedings may be considered
 - Control sepsis
 - Establish adequate drainage (percutaneous vs. surgical drainage)

- H2 blockers and octreotide may decrease the volume of flow through the fistula and accelerate healing
- Conditions associated with nonhealing fistulas:
 - Foreign body within the fistula tract
 - Radiation enteritis within the affected bowel
 - Infection/inflammation at the fistula origin
 - Epithelialization of the fistula tract
 - Neoplasm at the fistula origin
 - Distal obstruction of intestine
- **Conservative therapy:** 90% of small intestinal fistulas that closed did so within 1 month. < 10% of the fistulas closed after 2 months, and none closed spontaneously after 3 months (Reber)
- **Surgical therapy:**
 - Following a conservative course for 4 to 6 weeks without closure.
 - Allows fistula to heal spontaneously, optimization of nutritional status, control of the wound and fistula sites, permits the peritoneal reaction and inflammation to subside, making operation easier and safer.
 - Preferred operation – fistula tract excision and segmental resection and reanastomosis.

Prognostic Indicators of Successful Spontaneous Fistula Closure:

	Spontaneous Closure	Surgical Closure
	More Likely	More Likely
Output (mL/day)	<500	>500
Age (yr)	<40	>65
Site	Proximal small bowel	Distal small bowel or colon
Nutritional status	Well nourished	Malnourished
Cause	Anastomotic breakdown	Malignancy, inflammatory or infectious disease, complete anastomotic dehiscence
Anatomic characteristics	Long fistulous tract	Distal obstruction, eversion of mucosa
Duration	Acute	Chronic



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