

POSTOPERATIVE ILEUS VS. SMALL BOWEL OBSTRUCTION

Postoperative Ileus

- Defined as the prolonged inhibition of coordinated movements of the gastrointestinal tract
- Nausea and vomiting, abdominal distension, pain and the absence of flatus and stool are possible indicators of postoperative ileus.

Pathophysiology of Ileus

- Sido, et al. elucidated the extensive inflammatory response within the intestinal muscularis after bowel surgery. This inflammation is one of the key causes of postoperative ileus.
- Schwartz, et al. hypothesized that endogenous luminal particles and bacterial products will activate circulating leukocytes that eventually extravasate into the intestinal muscularis.
- Behrendt, et al. demonstrated the direct relationship between the inflammatory reaction and the macrophages of the intestinal muscularis that participate and functional smooth muscle impairment
- Schwartz, et al. found an induction of cyclooxygenase-2 mRNA and protein in resident macrophages that decreased jejunal circular muscle contractility through prostaglandins.

Perioperative Management

- Thoracic epidural anesthesia is preferable to systemic narcotics in regard to decreasing the incidence of postoperative ileus.
- A prospective study demonstrated the dose dependent relationship between morphine and the time of return of bowel sounds, flatus, and bowel movements after colectomy.

Prevention and Treatment of Ileus

- Ceruletide, erythromycin, metoclopramide, somatostatin have all been studied as treatment for postoperative ileus with no conclusive results.
- Disbrow, et al. demonstrated a relationship between patient expectations after surgery and outcome.
- Asao, et al. showed the benefits of gum chewing on postoperative bowel motility believed to be related to sham feeding.
- Multiple studies have demonstrated that patients will often tolerate feeding within 24 hours after surgery.

The Future

- A multimodel approach
- Methylnaltrexone, an opioid antagonist prevents delays in gastric motility without reducing analgesia in patients receiving acute or chronic opioid therapy.

Postoperative Small Bowel Obstruction

- Defined by Stewart, et al. as a temporary return of bowel function followed by distension and obstipation within 4 weeks of laparotomy.

- Frykberg and Phillips considered abdominal pain, vomiting, distension, and obstipation to be the principal indicators, along with radiographic confirmation, of postoperative small bowel obstruction.
- Ellozy, et al. defined postoperative bowel obstruction as the presence of crampy abdominal pain, vomiting and radiographic findings consistent with intestinal obstruction, after an initial return of bowel function within 30 days after surgery.

Pathophysiology of Postoperative Small Bowel Obstruction

- adhesions
- internal herniation
- inflammation

Prevention and Treatment of Small Bowel Obstruction

- NG tube
- gastrograffin challenge
- the decision to operate

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