

Management

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Ileus may be managed by nasogastric drainage and restriction of oral intake until there is evidence of improvement. Supportive care such as attention to fluid and electrolyte balance and nutrition is also important, especially if ileus persists. Underlying drivers of ileus, e.g. abscess or peritonitis, should be managed on their merits. Regrettably, despite improved knowledge of the pathophysiology, specific drugs aimed at blocking inflammation or stimulating local neuromuscular function, e.g. prokinetics, have not proved sufficiently effective yet to be adopted for routine use. In patients with POI, if prolonged, CT scanning is the most effective investigation; it will demonstrate any intra-abdominal sepsis or mechanical obstruction and therefore guide any requirement for laparotomy. Otherwise the decision to take a patient back to theatre in these circumstances is always difficult. The need for a laparotomy becomes increasingly likely the longer the bowel inactivity persists, particularly if it lasts for more than 7 days or if bowel activity recommences following surgery and then stops again.

Inhibitory spinal (adrenergic) reflexes Acute stress response HPA axis activation releases catecholamines Mast cell Bowel activation handling Prolonged inflammatory response Figure 73.3 Pathophysiology of postoperative ileus. HPA, hypothalamic-pituitary-adrenal axis. (a) Figure 73.4 Computed tomography abdomen scout film (a) and representative coronal image dilatation of the small intestine (ileus) secondary to a driving inflammatory focus (pelvic collection, arrow) (courtesy of Dr Arman Parsai, Barts Health NHS Trust, London, UK). Prolonged Immediate local and decrease or distant abolition of decrease or motility abolition of motility Macrophage and neutrophil migration and activation Inhibitory Increased Afferent spinal mucosal sensitisation (adrenergic) permeability reflexes Bacterial translocation (b) (b) of a 22-year-old woman showing widespread

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The management of ACPO depends on whether complications are evident or considered imminent. In patients with clinical and radiological features of caecal ischaemia or perforation, emergency surgery will be required and usually necessitates a subtotal colectomy and end ileostomy (with high levels of morbidity and mortality). The majority of patients can however follow a more stepwise approach, starting with conservative measures (Table 73.3). Clearly the underlying cause where relevant, e.g. UTI, respiratory tract infection or myocardial infarction, should also be managed in parallel. It is reasonable to wait before progressing from one stage to the next but caecal diameters of 12 cm or above warrant rapid decompression to reduce perforation risk. The decision of whether to use intravenous neostigmine is difficult and is usually reserved for patients in whom supportive measures and colonic decompression have failed. Treatment is associated with profound autonomic effects (salivary gland stimulation, bradycardia, bronchospasm and hypotension) as well as abdominal cramps, followed often by a massive evacuation of flatus and faeces. Cardiac monitoring and a health professional competent in the

emergency administration of resuscitative drugs (especially atropine) are essential. Contraindications to the use of neostigmine include renal insufficiency, recent myocardial infarct, arrhythmias and asthma. Surgery is associated with high morbidity and mortality should be reserved for those with impending perforation and if failed or perforation has occurred. when other treatments hav

(c) TABLE 73.3 Management of acute colonic pseudo-obstruction. Reversal of risk factors Correct fluid and electrolyte imbalances Stop or reduce offending drugs, e.g. opioids, anticholinergics, calcium channel blockers (where possible) Empty the rectum by enemas and/or flatus tube Endoscopic Colonoscopy +/- flatus tube decompression Pharmacological Intravenous neostigmine unless decompression contraindicated (risk of arrhythmia and a

bronchospasm) Surgery Subtotal colectomy (usually with ileostomy) Venting stoma, e.g. caecostomy, in very un /f_i t patients a Requires high-dependency unit-level monitoring and support on hand for cardiorespiratory complications. (d) Figure 73.5 Scout /f_i lm (a) and representative coronal computed tomography image (b) of a patient with acute colonic pseudo-obstruction. The entire colon and rectum is variably distended with /f_l uid and gas. (c) Plain abdominal radio

graph (courtesy of James Hill) and (d) intraoperative photograph of the colon during sur gery for acute colonic pseudo-obstruction (courtesy of James Hill).

ACPO is a life-threatening condition in which prompt diagnosis and appropriate management can limit the occurrence of complications (e.g. ischaemia or perforation). Such complications occur in about 5–10% of patients and require emergency surgery with mortality rates between 30% and 60%. Recurrence is an issue in some patients with unmodifiable risk factors, e.g. senility and neurological disease. Such patients should have chronic modification of polypharmacy to avoid offending drugs and keep the rectum empty by regular enemas. Prokinetic medications, such as those used for chronic constipation, may have a role in such patients, although none are licensed for this indication. Management

The main lines of management are shown in Summary box 73.6, noting that for most patients there is no cure. Surgery, with the exception of placing feeding tubes or formation of a venting stoma, is impotent for a condition that is a diffuse neuromuscular disease. Further, surgery worsens the prognosis by adding the risk of adhesions into the diagnosis and, if resections or complications occur, speeding the patient towards intestinal failure. Small bowel (or multivisceral) transplantation is an option in selected patients.

Figure 73.6 Intestinal pseudo-obstruction in a young male patient. A full-thickness biopsy was undertaken from the proximal jejunum at minilaparotomy.

Summary box 73.6 Management of intestinal pseudo-obstruction

(b) Figure 73.7 Two examples of myopathy: (a) hollow visceral myopathy (note the vacuolation of the smooth muscle, arrows); (b) extra muscle layer in the muscularis propria (arrows). Nutrition (enteral/parenteral) Analgesia (but try to avoid opioids) Prokinetics (generally disappointing) Antibiotics (overgrowth) Immunotherapy – specific in inflammatory cases (limited data) Psychological support, including specific patient support groups Palliative care Surgery (very selected cases)

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