Bowel Obstruction and Ileus

The term (paralytic) ileus most frequently used to imply non-mechanical intestinal obstruction.

Causes

Small bowel obstruction

- Adhesions in 60%
- Herniae in 20%
- Malignancy (usually caecal) in 5%
- Volvulus in 5%.
- Gallstone ileus, bezoars, FB, and body packers.
- Crohn's disease
- Intussusception – rare in adults

Large intestinal obstruction

- Malignancies (usually colo-rectal) intrinsic & extrinsic
- Sigmoid (5%) and caecal volvulus
- Severe constipation causing faecal impaction
- Diverticulitis
- FB

Paralytic ileus

- Post operative ileus (↑ with handling of bowel at operation)
- Electrolyte imbalance
- Hypothyroidism
- Drugs (e.g. opiates, anticholinergics)
- Severe illness (Inflammation with peritonitis, e.g. AMI, CVA, DKA, ARF)
- A severe form is called Ogilvie's syndrome. (Intestinal pseudo-obstruction with massive dilatation of the colon)

Neonatal/Paediatric

- Congenital atresia
- Volvulus and midgut malrotations.
- Meconium ileus in cystic fibrosis
- Hirschsprung's
- Intussusception

Presentation

History

Abdominal pain: usually colicky in obstruction, but can become constant. Minimal or absent in paralytic ileus. Severe pain and tenderness suggests ischaemia or perforation.

Vomiting: earlier with higher obstruction. Bile stained if SBO below Ampulla of Vater. May be faeculent in LBO.

Bowel habit change: constipation ± no flatus (obstipation if both) after initial ↑bowel motions.

Exam

Dehydration (vomiting, 3rd spacing)

Abdominal distension: More marked with lower BO.

Decreased or tinkling bowel sounds

Pyrexia/peritonism may suggest perforation or infarction of the bowel.

Check for herniae

Investigations

Urine: Guide to dehydration.
Bloods: FBC, UE, BSL
Imaging: Supine & erect (or decubitus) AXR (sens 75%, spec ~50%). CT (sens 90%, spec 70%) for underlying cause.

Complications

- Fluid and electrolyte imbalance
- Ischaemia and perforation of the bowel may cause peritonitis and septicaemia.

Management

Resuscitation: ABC – particularly IVC, fluid balance.
Supportive: NBM, NGT if vomiting, IVF, analgesia, anti-emetics, rectal tube if sigmoid volvulus
Medical:

- Treat underlying medical condition – normalise electrolytes. Cease precipitating drugs.
- Neostigmine may be used in severe paralytic ileus.
- Antibiotics pre-op.

Surgical:

- Laparotomy if peritonism, high WCC, suspicion of ischaemia or perforation, not improving after 24h, colon diameter>13cm, large FB.
- Laparoscopic management of SBO has been used.
- Endoscopic stenting also especially in palliative care.

Volvulus

Twisting of intestinal segment on its mesenteric axis → obstruction. Most commonly sigmoid & caecal.

Sigmoid volvulus

- 66% volvuli
- *RF:* Severe chronic constipation
- *Features:* late presenting, diffuse abdo tenderness, tympanic distension. With strangulation fever & guarding may appear.
- *Inv:* AXR shows large inverted U loop of colon
- *Mx:* Rectal tube decompression by sigmoidoscopy ± surgery (if fails, strangulated or to prevent 90% recurrence rate)

Caecal volvulus

- Young adults
- RF:
    - 15% Pop: Congenital lack of fixation of term ileum/caecum/asc colon to post abdo wall.
    - Prev abdo surgery
    - Pregnancy
- *Features:* as for SBO.
- *Inv:* AXR shows single gas filled fluid level in dilated caecum misplaced in mid-abdomen or LUQ. Gas-filled caecum may be kidney-shaped. Relatively empty distal bowel.
- *Mx:* Surgery.
- *Prognosis:* Perf common. Gangrene in 20%. Mortality 20-40%.