Gastrointestinal obstruction

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Before we start …

- Some element of personal opinion and clinical experience, but mainly based on research evidence
- Be open-minded to implications for practice
Aims of the session

• To appreciate “man’s purgative passion”
• Gastrointestinal obstruction
  – causes and scale
  – how patients may present
  – which investigations are useful
  – the impact of obstruction
  – management options
Man’s purgative passion

- Use of purgatives, enemas and emetics since ancient times
- Bile (one of the “humors”)
- Stats about King
- Prophylactic as well as treatment
- 17th century “enema craze”
- Modern, Western diet
- Continuing misconceptions
What is it?

• Complex clinical problem
  – benign disorders
  – malignant disease (often advanced gynaecological and gastrointestinal cancers)

• Many mechanisms; often not a single one

• Challenging management problem
What types are there?

- **Benign GIO**
  - partial / complete

- **Malignant GIO**
  - single / multiple / diffuse
  - partial / complete
How common is it?

- **Benign (10 – 48%)**
  - adhesions, radiation enteritis
- **Malignant (52 – 90%)**
  - ovarian cancer (5.5 – 42%)
  - colorectal cancer (4.4 – 24%)
  - breast cancer, lung cancer, melanoma most frequent extra-abdominal primaries (13 – 15%)
  - can develop at any time; more in advanced disease
  - small intestine > large intestine
What causes it?

- **Extrinsic occlusion**
  - tumour, metastases, fibrosis, adhesions
- **Intraluminal occlusion**
  - polypoidal lesions, narrowing due to disseminated disease
- **Intramural occlusion**
  - infiltration of intestinal musculature, inflammation
- **Intestinal motility problems**
  - deranged neuronal control
Contributory factors

- Constipation
- Drugs
- Metabolic disturbances
- Neurological disorders
- Diet
- Age
- Previous surgery
- Hospitalisation
**Pathophysiology 1**

- Luminal occlusion or dysfunction of motility
  - delayed intestinal transit
  - non-absorbed secretions
  - distension due to secretions and SB gas
  - colicky, spasmodic pain

→ time to act now!
Pathophysiology 2

- if allowed to continue, vicious circle …
  - hypertense lumen
  - inflammatory response (PG, VIP)
  - hyperaemia and oedema
  - altered fluid distribution
  - hypovolaemia
  - renal failure
Pathophysiology 3

• can eventually result in metabolic disorders
  ➢ metabolic acidosis
  ➢ hypokalaemia
  ➢ hyponatraemia
  ➢ then sepsis in the late stages
  ➢ pressure, ischaemia, stasis, gangrene, perforation
The patient with GIO

- no flatus
- abdominal pain
- abdominal distension
- constipation (‘later diarrhoea’)
- vomiting
- abnormal bowel sounds
- dry mouth
Making the diagnosis

• History
• Examination
• Radiology
  – abdominal plain film X-ray
  – only CT abdomen if further information regarding disease needed / warranted
The impact of GIO

- anxiety
- distress
- pain
- anorexia
- nausea
- vomiting
- urinary retention
- confusion
- reduced quality of life
- decreased absorption
- dry mouth
- death
Options for management

• Surgical
  – should always be considered
  – some patients may be too unwell
  – poor prognostic factors (later)

• Conservative
The surgeon’s scalpel

• Bypass procedures
  – anastomosis; stoma formation; gastrostomy
• Stents: single site; depends on size
• Need to consider mortality, quality of life, symptom control (benefits vs. burdens)
  – operative mortality 9 – 40%
  – complication rates 9 – 90%
• Lack of clear evidence
  – no difference (re obstruction or surgery) cf conservative management
Should we operate? … probably not!

- cancer
- peritoneal carcinomatosis
- widespread tumour
- previous radiotherapy
- liver involvement
- multiple partial obstruction
- poor performance status
- over 65 with cachexia
- recurrent ascites
- low serum albumin
- distant / pleural mets
- proximal stomach
- short time from diagnosis to GIO
The physician’s medicine

- Relief of symptoms
  - antiemetics, analgesia, anti-secretory drugs, steroids
- Parenteral administration
  - IV if already present, or CSCI
  - may also include transdermal, sublingual or rectal
- Nutrition and hydration (considered approach)
A medication approach

• Antiemetic drugs
  – levomepromazine (5-12.5mg / 24°)
  – haloperidol (0.5-5 mg / 24°)

• Anti-secretory drugs
  – hyoscine butylbromide (60-120mg / 24°)
  – octreotid (0.6-0.8 mg / 24°)

• Analgesia

• Dexamethasone (16mg od; reducing dose)
The nurse’s skill

- Mouth care
- Skin care
- Communication
- Nutrition
- Hydration
- Recording
  - symptoms
  - response to medications
In summary

• Evaluate the situation carefully
• Consider the goals of management
• Weigh up burdens and benefits of treatment
• Involve patients and their families
• Active and early intervention
• Reassess daily / twice-daily
• Prognosis is generally poor
But ... prevention is probably better than cure! (where possible)
You survived!

... any questions?