Bowel Obstruction Approach

- History -

1. Is it obstruction or not?
   - **Cardinal features:** N\V, abdominal pain, distension, decreased flatus, constipation\obstipation

2. What’s the likely level of obstruction?

<table>
<thead>
<tr>
<th>Proximal</th>
<th>Distal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cramping pain (periumbilical)</td>
<td>Cramping pain (lower abdomen)</td>
</tr>
<tr>
<td>Early vomiting (may be bilious)</td>
<td>Late\absent vomiting (may be fecal)</td>
</tr>
<tr>
<td>Minimal distension</td>
<td>Large distension</td>
</tr>
<tr>
<td>May still have bowel movement\passing flatus</td>
<td>Early constipation\obstipation</td>
</tr>
<tr>
<td>distal to obstruction</td>
<td></td>
</tr>
</tbody>
</table>

3. What’s the probable cause:
   - **Intraluminal:**
     - Fecal impaction, gallstone ileus, foreign body, bezoar, worm ball (Ascaris)
   - **Intramural:**
     - Neoplasm (benign\malignant), intussusception, inflammatory, ischemia
   - **Extrinsic:**
     - Adhesions, hernia, volvulus\malrotation, intra-abdominal tumors (ovarian masses, mesenteric
cysts, pancreatic cysts, GIST), tumor cell deposits in mesentery, annular pancreas, intra-abdominal
abscess or hematoma

4. Partial or complete?
   - Still passing stool\flatus -> partial obstruction
   - No bowel movement > 24 hrs \obstipation -> complete obstruction

5. Simple or complicated?
   - No peritoneal signs = simple obstruction
   - Peritoneal signs, ischemia, gangrene, perforation = complicated obstruction

6. Any systemic manifestations caused by the obstruction?
   - Dehydration, electrolyte disturbances, hemodynamic instability, renal impairment

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**Important points in PMHx:**

- **Diseases:** malignancy, atherosclerotic ds, prev MI\stroke, arrhythmia, IBD, diverticulitis, chronic biliary colic, hx of hernia
- **Review medications**
- **Previous abdominal operations**

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**Types of obstruction:**

1. Mechanical
2. Functional (pseudo-obstruction):
   - Small bowel: paralytic ileus
   - Large bowel: Ogilvie syndrome
- Physical Exam -

1- **Vital signs**: hemodynamic stability (tachycardic, hypotensive), fever

2- **Abdominal exam**:
   - **Inspection**: scars, distention, obv masses, hernia
   - **Palpation**: tenderness, guarding, masses, hernia
   - **Percussion**: tympanic
   - **Bowel sounds**: hyperactive -> hypoactive\absent

3- **PR exam**:
   - Empty rectal vault?
   - Fecal impaction?
   - Pelvic masses?
   - + FOBT -> strangulation, ca, inflammation

- Investigations -

1. **Labs**:
   - CBC: leukocytosis, hgb\hct (*high if dehydrated, low if anemic*)
   - Electrolytes: hypokalemia
   - Renal function: BUN, Cr (*high if dehydrated*)
   - Amylase
   - U\A

2. **Imaging**:
   - Plain films: initial
   - Barium: for LBO
   - CT: for SBO

- Management -

- **If partial, simple obstruction -> conservative therapy**:
  - NPO
  - IV hydration
  - Correct electrolyte imbalances
  - NGT decompression
  - Foley’s cath to monitor output

- **If not improving or worsening of partial obstruction w\ conservative therapy, signs of peritonitis, hemodynamic instability -> OR**