## **Acute GI-related Abdominal Pain:**

**Pathogenesis and Characteristics** 

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# **Peritoneal cavity Visceral Peritoneum** Innervated by: Autonomic nerves Bowel stretching, pulling, contracting

**Parietal Peritoneum** *Innervated by:* Somatic nerves

Cross-section of the GI tract

inflammation in the bowel

Cuts, structural damage, and

#### Abdominal pain felt:

- Diffuse, non-localized
- Dull, crampy, periodic
- Not associated with movement

### Clinical signs in patients:

Pt may writhe around, trying to get rid of the pain

Transition from diffuse to localized pain can indicate disease progression (ex. from visceral to parietal peritoneal inflammation)

#### Clinical signs in patients:

Mesentery

**Intestinal Lumen** 

Abdominal pain felt: Sharp, well-localized

> "Peritoneal signs": abdominal guarding, pain with abdominal vibration (coughing, shaking, percussion, palpation)

Excruciatingly painful, persistent

Associated with movement of bowels

Patient often lies still, to avoid abdominal vibration.



pancreatitis

may or may not present as acute abdominal pain

Note: Bowel obstruction

Perforated Ulcer

**Bowel** Infarction

#### DDx of an "acute abdomen":

a sudden, non-traumatic disorder of the abdomen that needs urgent diagnosis and treatment. Each topic will be further explored in subsequent slides

Black Book for the DDx. Keep in mind that visceral abdominal pain can also be caused by the "acute abdomen" diseases (if the intial phases).

**Important Notes:** 

1. Acute abdominal pain can also

female reproductive tract

disorders are listed here.

2. The DDx of Visceral abdominal

pain is broad, please consult relevant sections of the Calgary

result from non-gastro-intestinal

causes, such as kidney stones,

issues, and urinary tract issues.

GI-related acute abdominal pain

For simplicity's sake, only the

diseases are presenting in their

Legend:

= pathophysiology

= mechanism

= sign/symptom/lab finding

= complications

**Appendicitis** 

Acute

Cholecystitis

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