Grand Rounds
Case Presentation

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Presentation:

- 82 year old female
- 24 hour history diffuse abdominal pain
- Nausea and vomiting x 2
- Anorexic
- Diarrhea (not grossly bloody)
Past Medical History:

- Hypertension
- Asthma
- Hypothyroidism
- Hiatal Hernia x 30 years
Meds:

- Lasix 40mg PO BID
- Ventolin & Atrovent
- Synthroid 0.075mg Daily
- No known drug allergies
Exam:

- Temp: 98.6
- 135/76
- 85 BPM
- 18
- 90% RA

- Neuro: Intact
- Pulm: Bialteral rhonchi
- CV: S1/S2, No Murmur
- GI: Soft, slight TTP in the BUQ, ND, +BS, No rebound or guarding. Benign
- Ext: 1+ BLE Edema
U/A: Normal
CV: EKG, Troponin were negative
Amylase: normal
LFT’s: normal
XR: . . . . . . . . .
The ED diagnosed the patient with an adynamic ileus and felt that no further work-up was necessary. The patient was then reassured and instructed to follow up with her PCP in 7-10 days. Furthermore, she was instructed to return to the ER if her symptoms worsened …..
12 Hours Later......
Secondary Presentation

- Worsening BUQ pain
- Recalcitrant nausea, vomiting
- Subjective fever and chills
- Anorexia
- She denied CP, SOB, DOE, hematemesis, hematochezia, or melena
Secondary Presentation:

- **Vitals:**
  - Temp 37.3
  - BP 105/60
  - HR 105
  - RR 20
  - O2 95% RA

- **Exam:**
  - Neuro: AAOx3
  - Pulm: Bilateral rhonci
  - CV: S1/S2, No murmur
  - GI: Soft, Mild TTP in the BUQ (R>L), No rebound or guarding
  - Ext: 1+ BLE edema
Differential Diagnosis of Nausea & Vomiting:

**Acute**
- Digitalis toxicity
- Ketoacidosis
- Cancer chemotherapeutic agents
- Inferior myocardial infarction
- Drug withdrawal
- Hepatitis

**Recurrent or chronic**
- Psychogenic vomiting
- Metabolic disturbances (uremia, adrenal insufficiency)
- Gastric retention (gastroparesis, outlet obst)
- Bile reflux

**With Abdominal Pain**
- Viral gastroenteritis
- Acute gastritis
- Food poisoning
- Peptic ulcer disease
- Acute pancreatitis
- Small bowel obstruction and pseudoobstruction
- Acute appendicitis
- Acute cholecystitis
- Acute cholangitis
- Acute pyelonephritis
- Inferior myocardial infarction

**In Association with Neurologic Symptoms**
- Increased intracranial pressure
- Midline cerebellar hemorrhage
- Vestibular disturbances
- Migraine headaches
- Autonomic dysfunction
Investigations:

- CBC
- PT/PTT
- SMA 7
- Troponin/EKG
- Amylase
- LFT’s
- UA
- XR
Secondary Presentation

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U/A: Normal
CV: EKG, Troponin were negative
Amylase: normal
LFT’s: TB=2.2, AST/ALT=252/300, Alk Phos=278
XR: . . . . . . . .
Studies:
Surgery consult was obtained for cholecystitis.

Patient taken to OR for Laparoscopic Cholecystectomy.

On initial evaluation of the abdomen.
OR:

- Patient was converted to open
- Enterolithotomy was performed, but bowel was frankly necrotic, so resection and primary repair was performed
Gallstone Ileus

- More frequent in women and in patients older than 70 years old
- Mechanical obstruction caused by a large gallstone
- Mainly small bowel at the terminal ileum
- Can cause gastric outlet obstruction: Bouveret’s Syndrome
- Diagnosis has a 20% mortality rate mainly due to age/comorbidities of patients
Etiology:

- Develops as a complication of chronic cholecystitis
- Inflamed gallbladder becomes adherent to adjacent intestine
- A stone may ulcerate through the wall to form a cholecystenteric fistula
- Stones pass through fistula and air from the bowel into the biliary tree (pneumobilia)
- Stones usually solitary and greater than 2.5cm diameter

Fig. 4.9 Fistula between gallbladder and duodenum allowing stone to pass into the gut. (A) Inflamed gallbladder adheres to duodenum. (B) Fistula forms, stone passes into duodenum. (C) Gallbladder contracts after stone has passed into the duodenum. (D) Gallstone impacts at terminal ileum.
Diagnosis:

- High index of suspicion
- Elderly patient
- Pneumobilia (40% of cases)
- Small bowel obstruction
- Abdominal X-ray may detect these features
- Ultrasound
- CT
Treatment:

- Board Answer: Enterolithotomy
- Debate:
  - Enterolithotomy plus cholecystectomy and fistula closure
- No difference in morbidity or mortality