Case Presentation: 57 Year Old Woman with Abdominal Pain

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History of Present Illness

57 year old woman presents to the ED with abdominal pain and nausea. She was not appropriately responding, so history was attained from the patient’s daughter and medical record.

Abdominal pain that has been on and off for the last year. In this past week the pain has gotten worse and includes nausea. No episodes of vomiting. Positive for anorexia. Pt has also been “out of it” and disoriented.

Per daughter at baseline the patient is very aware and oriented. She lives with her significant other. She does not walk and she wears a diaper.
Additional History

PMH of

- Gastric bypass surgery that was complicated by sepsis secondary to gastric remnant perforation
- Enterocutaneous Fistula
- Bipolar I Disorder
- Seizures
- Uterine Cancer
- Untreated Hepatitis C
Examination and Initial Work-Up

150/90 110 Afebrile 20 95% on Room Air

Patient appeared cachectic and chronically ill, she was alert and confused.

PE notable for tachycardia, 2+ pitting edema in lower extremities up to knees. Ostomy bag present.
Lab Results

WBC – 10.2  RBC – 4.28  PLT - 237
BMP:
  BUN – 9
  Cl – 105
  CO2 – 18
  Cr – 0.7
  K – 4.3
  Na – 135
  Lactic acid – 2.8
Urinalysis and Urine Culture

WBC - 0-2
RBC – 4-7
Epithelial cells – occasional
Bacteria – 4+
Culture positive for E. Coli ESBL
CT of the Abdomen and Pelvis
CT of the Abdomen and Pelvis

- Heterogeneous fluid collection within hyperintense peripheral enhancement
- Focal penetration into the abdominal wall. Surrounded by edematous tissue
- Peripherally enhancing fluid collection
- Hypodense region adjacent to the right hepatic lobe
CT of the Abdomen and Pelvis
CT of the Abdomen and Pelvis

Thickened urinary bladder wall

Inflammation within the abdominal wall
CT Guided Drain
Post Drain CT of the Abdomen and Pelvis

Abscess drain, decreased collection
Differential Diagnosis

The etiology for the patient’s symptoms of altered mental status, abdominal pain, and nausea / vomiting:

1. Abdominal abscess formation
2. Urinary tract infection
3. Cirrhosis of liver with ascites
Differential Diagnosis: Abdominal Abscess

- Symptoms – abdominal pain, nausea / vomiting
- Imaging: CT abd / pelv – phlegmonous collection within the right abdominal wall subcutaneous tissue
- History of gastric bypass with complications and enterocutaneous fistula
- Physical exam – cachetic, tachycardia, chronically ill
Differential Diagnosis: Urinary Tract Infection

- Symptoms – altered mental status
  - No dysuria or frequency
- Imaging: CT abd / pelv – urinary bladder wall thickening
- Labs: UA and urine culture – white count, positive culture - consistent with UTI
Differential Diagnosis: Cirrhosis

- Symptoms – abdominal pain, nausea/vomiting, altered mental status
  - Acute symptom changes vs chronic disease
- CT abd / pelv – perihepatic fluid, right subscapular perihepatic abscess
- History of Untreated hepatitis C
- Physical exam - anasarca and cachexia
Diagnosis?
Diagnosis: Intra Abdominal Abscess

- Based on the imaging of the phlegmonous fluid collection surrounded with peripheral enhancement resolved with drain placement there was most likely an intra-abdominal abscess.
- Abscesses can be confined or generalized within peritoneal cavity
  - Systemic symptom of septic shock such as leukocytosis and fever did not set in because of the contained nature of this abscess.
  - Concern for progression if not treated.
  - Bacteria cause inflammatory reaction causing hypertonic environment $\rightarrow$ increase in size of abscess cavity
- Blood cultures are also typically negative such as this case.
Typical Presentation

- Can present with abdominal pain, fever, anorexia, tachycardia, or prolonged ileus
- Palpable mass may or may not be present
- If delayed treatment/presentation → septic shock
- Post surgery patients – masked symptoms due to analgesia and antibiotics
- Dehydration, oliguria, tachycardia, tachypnea, and respiratory alkalosis are common
Source of Abscess

- Most likely due to fistulae from prior abdominal surgery (gastric bypass, cholecystectomy, etc)
  - History of enterocutaneous fistula
- UTI as potential source – more likely to cause perinephric or renal abscess

Typical Sources
- 70% of intra abdominal abscesses are postsurgical
- 13% of are hepatic abscesses within the right lobe
- Most often due to gastrointestinal source, less likely due to gynecologic or urinary source
Treatment

- CT guided drainage – avoid anesthesia and wound complications and can prevent contamination of other abdominal cavity parts.
  - Drainage culture showed multi organisms gram negative rods, yeast
- IV antibiotics
  - Piperacillin + Tazobactam and Fluconazole were given to this patient
References

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