Medicolegal Review: Abdominal Pain Cases

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Malpractice Claims

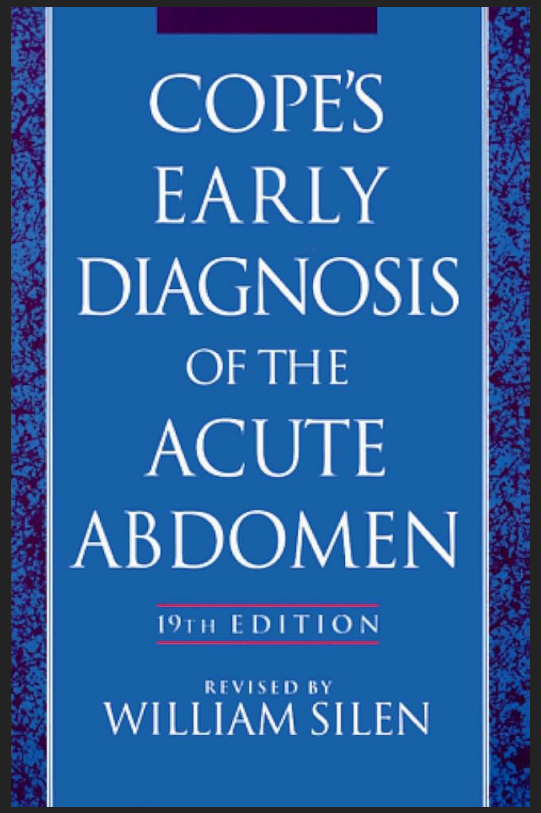
- Emergency Medicine
  - 15th most likely to be involved in litigation (of 25 medical specialties)
  - Primary defendants in 19%
  - Vast majority are resolved in favor of the physician
    - 70-80%
      - Ferguson et al
        - Clin Review Emerg Med, 2018

Highest Risk Areas

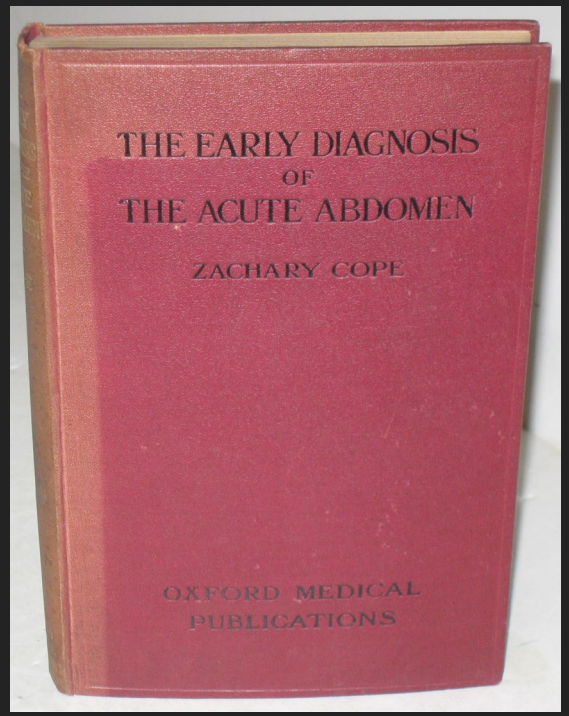
- Chest pain
  - Missed MI
- Abdominal pain
  - Appendicitis
- Aortic aneurysm
- Intracranial hemorrhage
- Fever
  - Missed meningitis

Abdominal Pain

- Highest risk
  - Appendicitis
  - Mesenteric ischemia
  - Ovarian/testicular torsion
  - Ectopic pregnancy
    - Kendle, Kside
      - Emerg Med Clin N Am, 2025

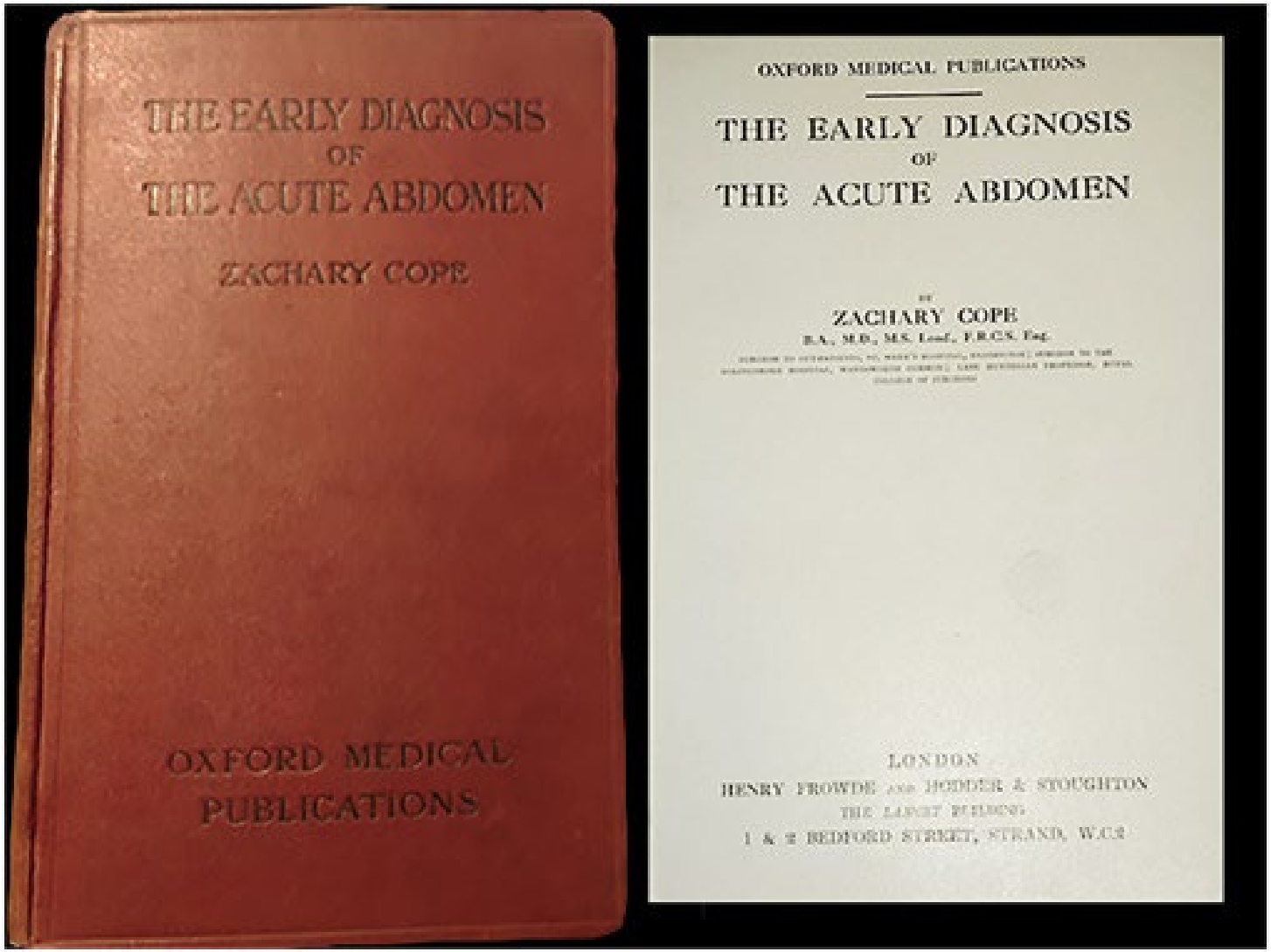


The Acute Abdomen



The Acute Abdomen

- *"All who have had much experience of the group of cases known generally as the acute abdomen will probably agree that in that condition early diagnosis is excep- tional. There are still many who do not appreciate to the full significance of the earlier and less flagrant symptoms of acute abdominal disease"*
    - *Preface, 1st edition*



Key Points

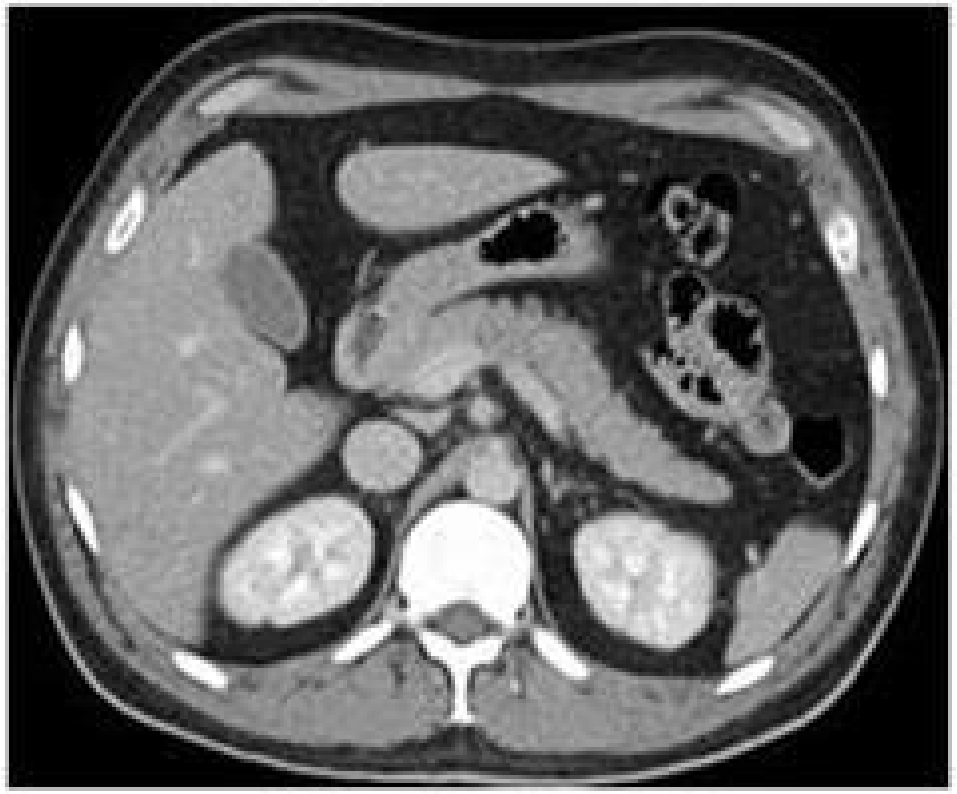
- Understand our limitations
- Do not diagnose unless you have to
- Humility and follow up are the key

Case # 1

- 32 year old female
- Abdominal pain for 4 hours
  - Nausea, persistent vomiting
  - No fevers
  - No urinary symptoms
- On exam
  - 132/72, 112, 20, 98%, 37.4
  - Vomiting
  - Diffuse pain, worse on the right
  - + guarding

Case # 1

- Labs
  - U/A non-diagnostic, but unimpressive
    - Urine pregnancy negative
  - CBC
    - WBC 17.8
  - Potassium
    - 3.1
  - Remainder of the labs were unremarkable
    - Lfts



Case # 1

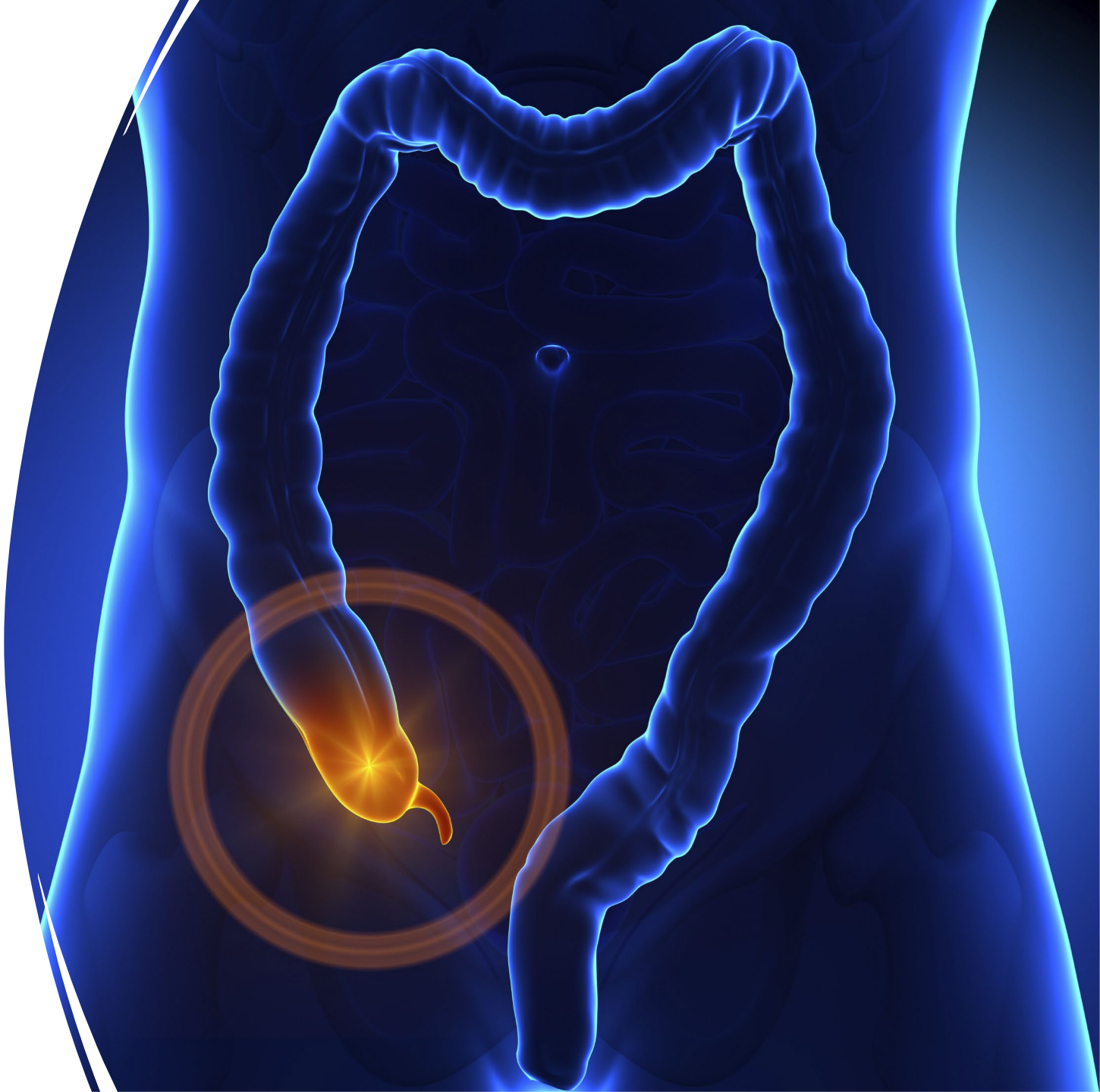
- CT scan
  - No acute abnormality demonstrated
  - Appendix not directly visualized
    - No evidence for a pericecal inflammatory process
- Discharged
  - Cannabinoid hyperemesis syndrome

Case # 1

- Repeat vital signs at discharge?
- Repeat exam at discharge?
- Addressed abnormal labs?
- Diagnosis?

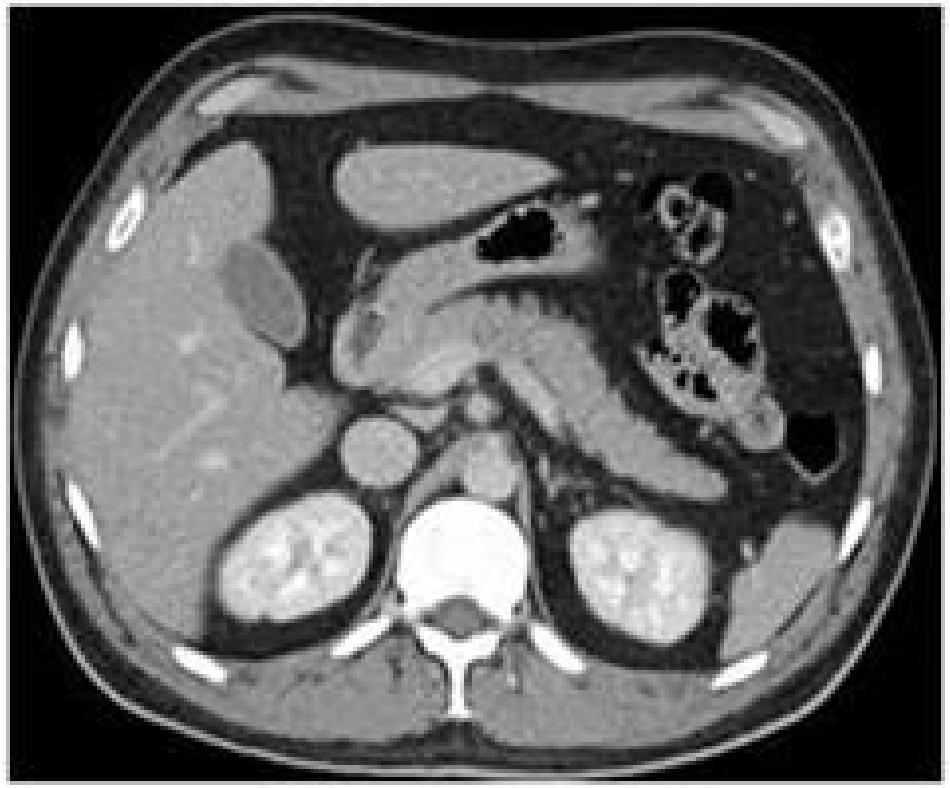
Appendicitis

- Most cited among malpractice claims due to abdominal pain
- Avoid relying on scoring systems
  - Alvarado score?
    - ACEP recommends against its use in adults
- Beware of early presentations



Sensitivities of Imaging

- Abdominal CT
  - Appendicitis – 95%
  - Cholecystitis – 85%
  - Gallstones – 75%
  - Mesenteric ischemia – 83%
  - Ovarian torsion – 75 - 95%
- Ultrasound
  - Appendicitis – 40 - 95%
  - Cholecystitis – 68-81%
  - Gallstones – 96%
  - Mesenteric ischemia – 85%
  - Ovarian torsion – 80%



Case # 2

- 24 year old female
- Right lower quadrant pain since last night
  - Severe, + nausea
    - No vomiting
  - No fevers
  - No diarrhea
  - No vaginal bleeding or discharge
  - LNMP was 2 weeks ago

Case # 2

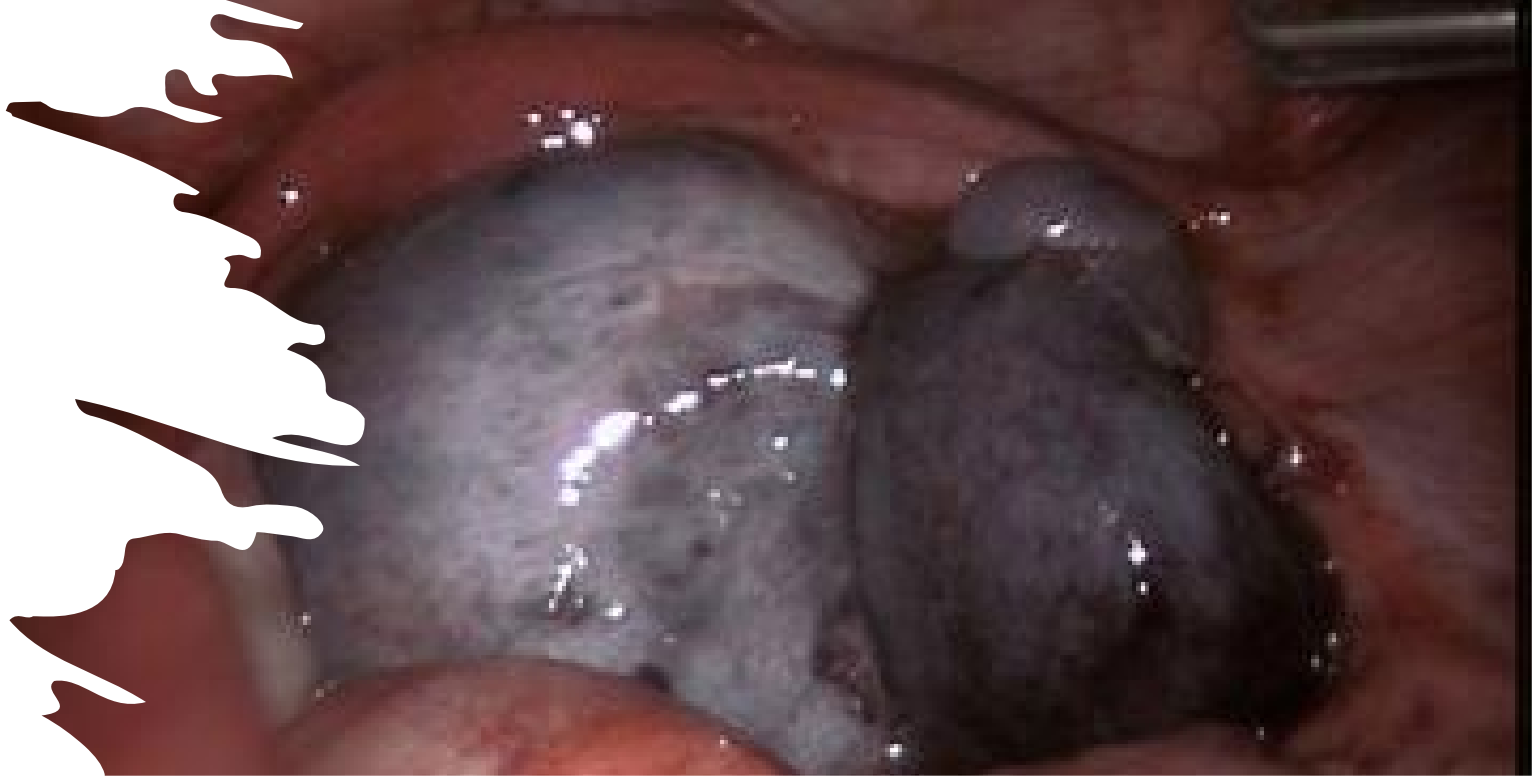
- CBC
  - WBC – 12.7
- Pregnancy test
  - Negative
- Urinalysis
  - Negative

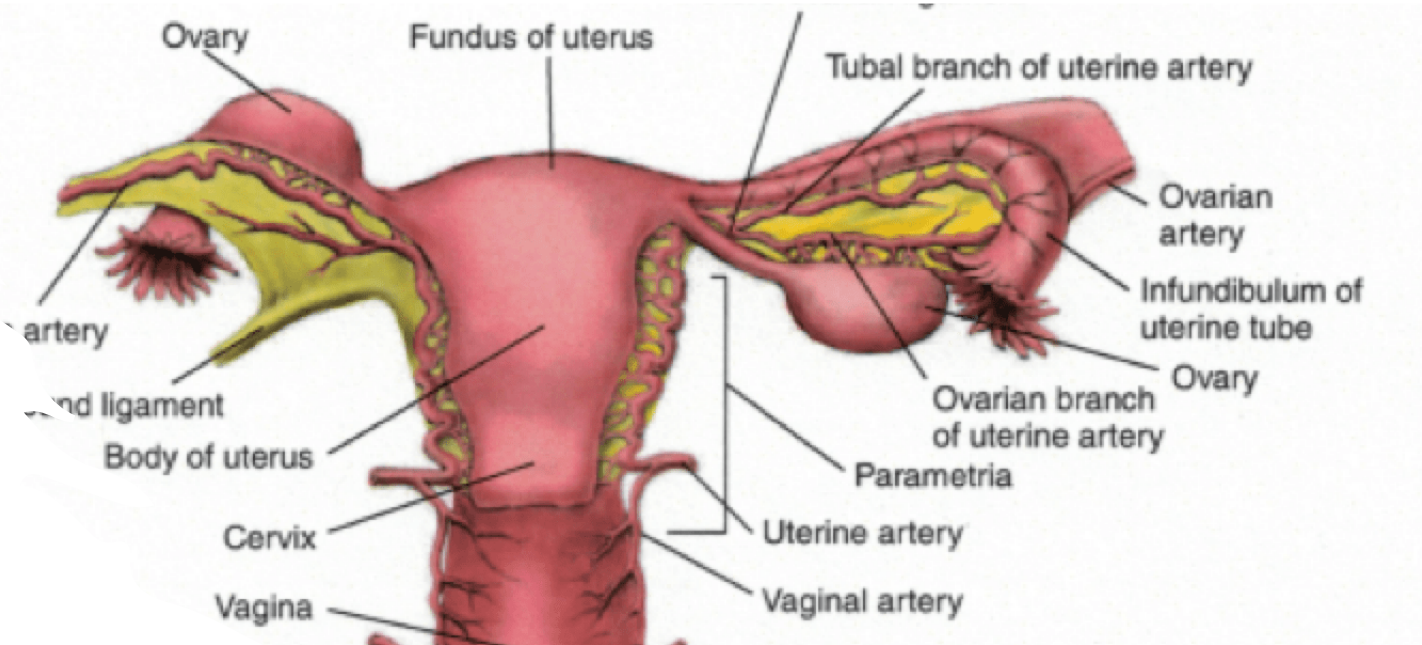
Case # 2

- Ultrasound ordered
  - 17:21
    - Tech has already left
- CT scan ordered
  - 20:38
    - Enlarged ovary
- OB/GYN consult
  - 21:24
    - Requested transfer
- Transferred
  - 23:48

Ovarian Torsion

- 30% present without pain
- No imaging test can rule out the diagnosis
- Special populations
  - 12% in pregnant patients
  - 15% in pediatric patients
- What is your facilities plan?
  - Ultrasound available?





Case # 3

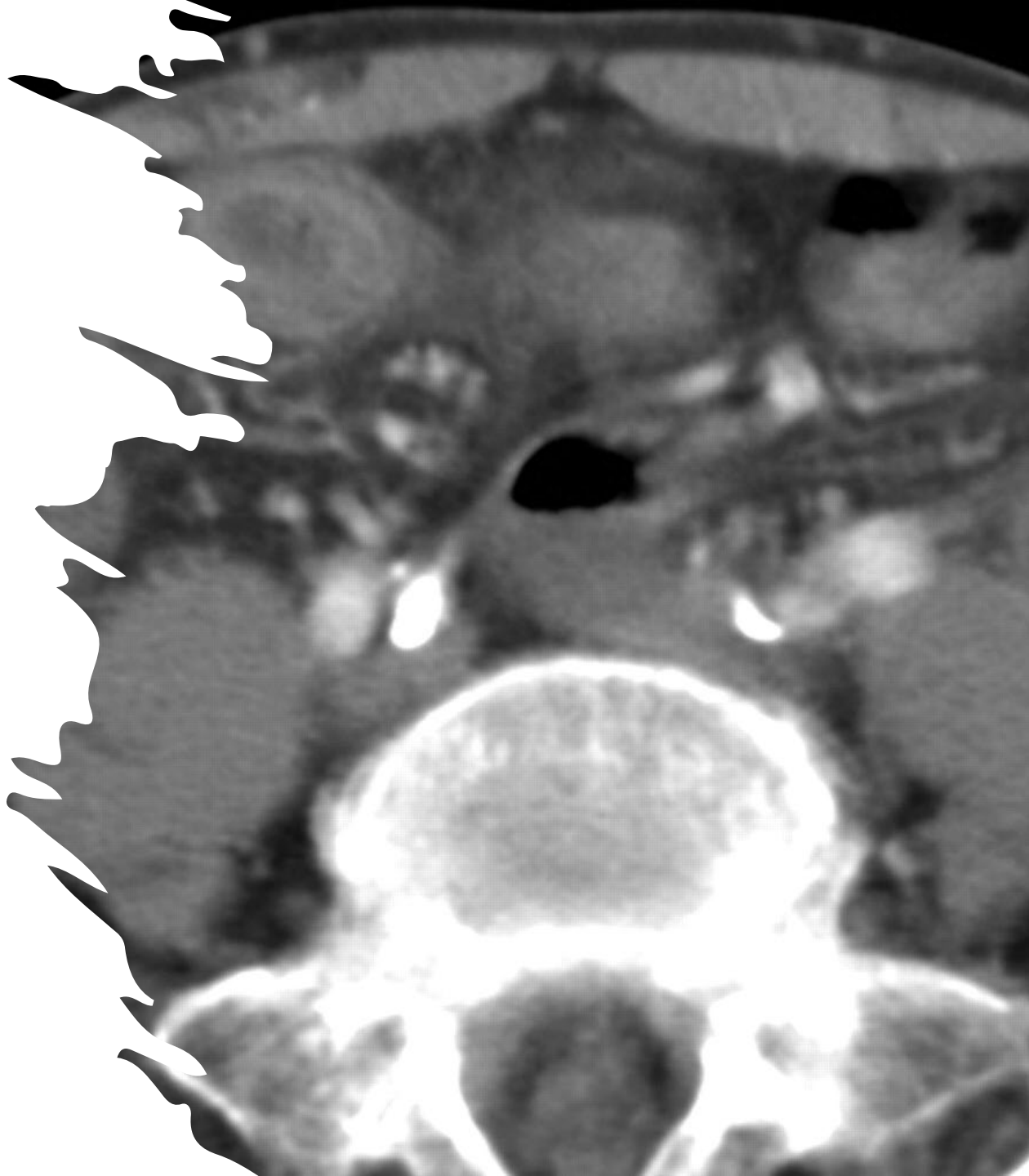
- 68 year old female
  - HTN, a fib
- Abdominal pain x 1 day
  - Getting worse
  - + nausea/vomiting x 2
  - No fevers
- Physical exam
  - Uncomfortable
  - 169/90, 114, 37.1
  - Abdomen
    - Soft, mild diffuse ttp

Case # 3

- Labs
  - CBC
    - WBC 13.4
  - Urinalysis
    - Non-specific
  - BMP
    - Non-anion gap acidosis
  - Lactate
    - 6 mmol/l

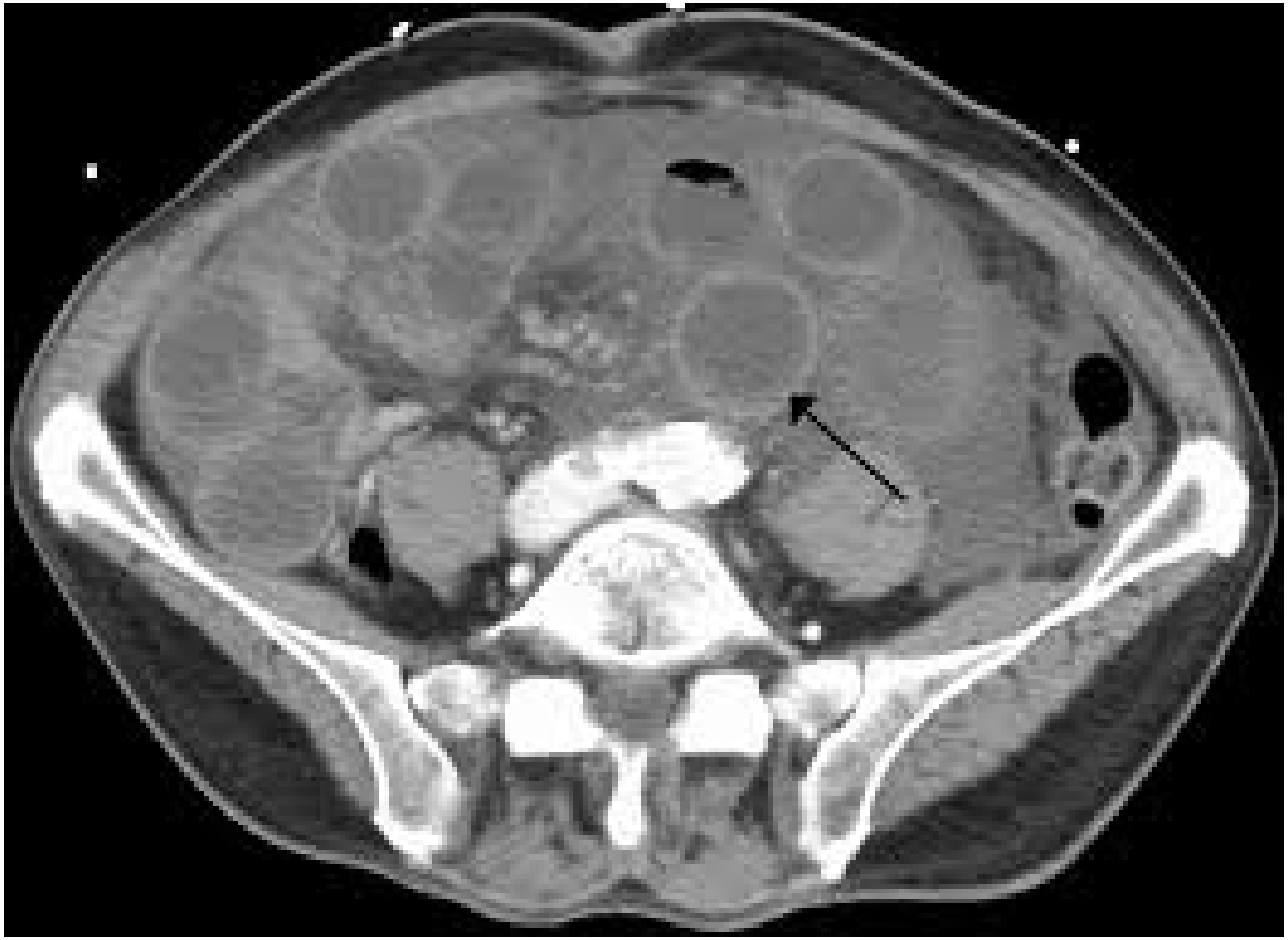
ED Evaluations

- CT scan
  - Non-specific inflammatory changes
    - ? Colitis
  - Bowel wall thickening
- Surgery consult
  - CT reviewed
- Admit to medicine



Mesenteric Ischemia

- No test, no single finding, and no imaging is sufficiently sensitive
  - Cudnik et al
    - Acad Emerg Med, 2013
- Clinical history and exam
  - Pain out of proportion
  - Age greater than 60

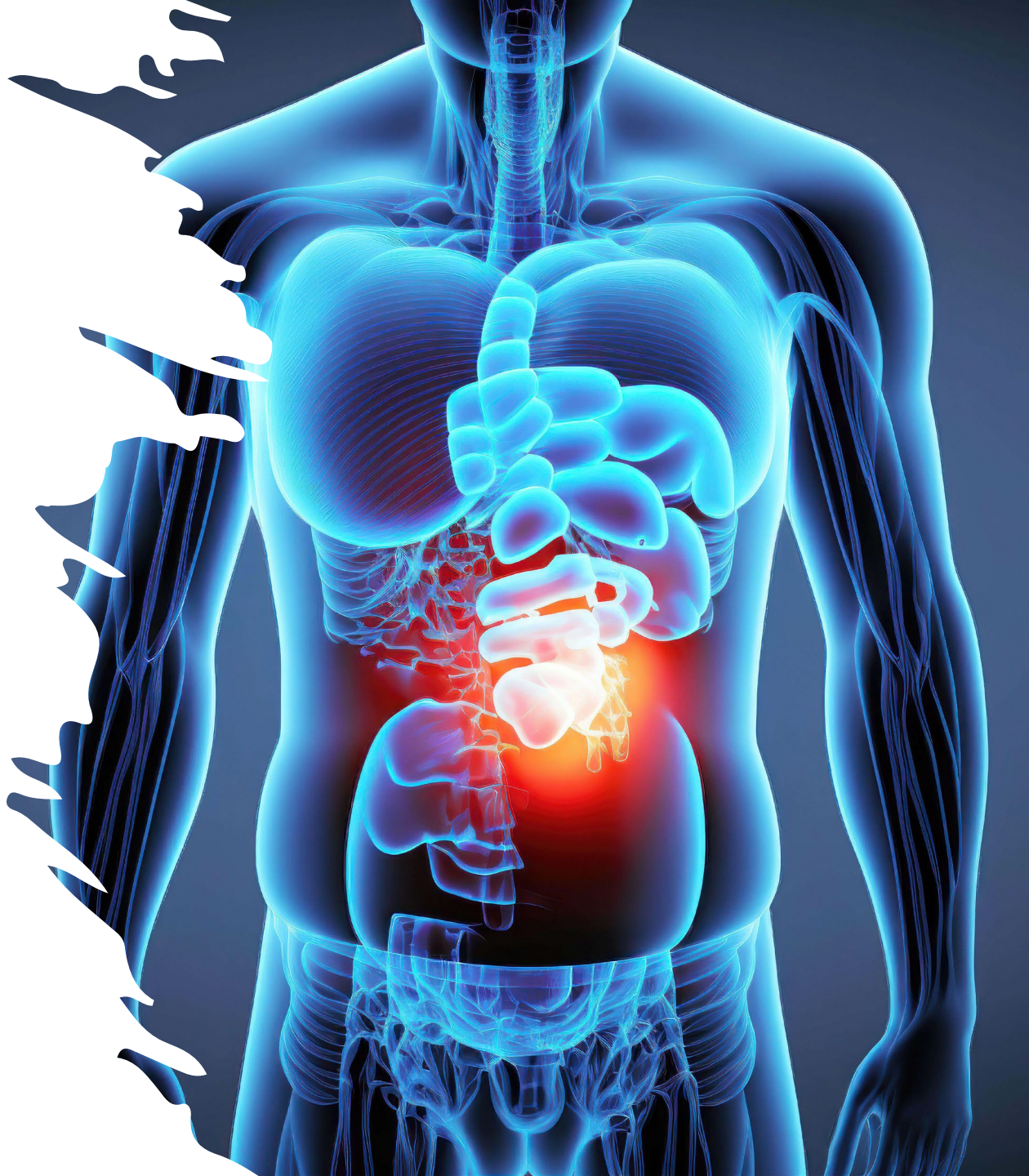


Abdominal Aortic Aneurysm

- 61% have abdominal pain
  - 39% do not
  - 37% had back pain
    - Azhar, et al
      - J Endovasc Ther, 2014
- If we don’t think about it, we will miss it
- Emergency physicians lead the list of defendants
  - 29%
- 42% miss rate

Abdominal Pain

- Thorax
  - MI
  - PE
- Pelvis
  - Ovaries
  - Testicles
- Retroperitoneum
- Special populations
  - Pediatric patients
  - Older patients
  - Post-surgical patients



Abdominal Pain Pearls

- Acknowledge abnormal labs
  - Elevated WBC
  - LFTs
  - Lactate
- Beware of indeterminant tests
- Re-evaluate prior to discharge
- Clear follow up instructions
- Do not diagnose without clear evidence
- Embrace boucebacks

Diagnoses to Avoid

- Gastroenteritis
- Indigestion
- Constipation
- Cannabinoid hyperemesis syndrome
- Colic
  - Kendle, Kaide
    - Emerg Med Clin N Am, 2025

What Do Plaintiff's Lawyers Love?

- Abnormal labs and/or vital signs that go unaddressed
- Concerns raised that are not addressed or acknowledged
  - Patient
  - Nursing
- Ambiguous discharge instructions
- Abbreviated physical exams with no re-evaluations
- The wrong diagnosis

Summary

- Respect early presentations
- Know the limitations of imaging
- Lab tests are of limited value
  - Acknowledge abnormal
- Fight the temptation to diagnosis
  - Don’t make a diagnosis unless you have to
- Embrace bounce backs
- Discharge instructions, follow up and humility are key