

Abdo pain tutorial

Set up:

Each student will view one of:

1. Approach to abdo pain: Part 1: History (9 min)
2. Approach to abdo pain: Part 2: Physical Exam (6 min)
3. Approach to abdo pain: Part 3: Lab tests and imaging (7 min)
4. AAA: Worked example (2 min) and Presentation, investigations and treatment of AAA (7 min)
5. Ectopic pregnancy (first 6 minutes until Diagnosis)

You will then form groups of 5+ with at least one student viewed one video.

As a group, you will work through the cases. Feel free to use your tutor and the internet as resources.

Case 1: Approach to generalized abdo pain

A 45 yo M presents with abdo pain for 2 days.

Q1. Regarding the history, what conditions would you think of if his location of pain was:

- RUQ
- RLQ
- Epigastric
- LLQ
- Periumbilical

Q2. What conditions would you worry about if his pain was:

- Abrupt in onset?
- Colic?
- Associated with fever?
- Associated with vomiting?
- Associated with GI bleed?

Q3. What conditions would you worry about if he was hypotensive?

His pain started yesterday in his periumbilical area. It migrated into his RLQ this morning. It is gradual in onset. The pain is constant and 8/10. He has loss of appetite. He vomited once. There is no GI bleed.

His Vital signs include: 37.9C, BP 150/80, HR 120, RR 18, Oxygen Sat 99% on RA. He has difficult walking and moving.

You want to do a physical exam. He is in a lot of pain.

Q4. Is it appropriate to give him analgesics? Will it mask the findings of physical exams?

Q5. What would you look for in physical exam?

There are no surgical scars.

He has tenderness and guarding in his RLQ. The rest of his abdomen is soft. There is decreased bowel sound. His psoas and obturator signs are negative. His genitalia exam is normal.

Q6. What is your most likely diagnosis at this point? What investigations would you order?

Q7. The radiologist was unable to see his appendix on the ultrasound. What is your next step?

Q8. His next imaging choice shows acute appendicitis with no signs of perforation. What is your next step?

Case 2: Abdo pain in a geriatric patient

Your next patient is a 75 yo F with generalized abdo pain. Her vital signs include HR 60, BP 110/80, RR 20, Temp 36.5, Oxygen Sat 97%.

She has a past history of hypertension and paroxysmal A Fib. Her medications include metoprolol and aspirin. She has no allergies.

The patient states that her abdo pain began this morning when she woke up. The pain is mostly in her abdomen and flank. It is constant and severe. She then had a syncopal episode and her family called in the paramedics.

On physical exam, she is uncomfortable and writhing in pain. You are unable to do an exam at this point.

Q1. List your differential diagnosis at this point.

Q2. What is your most likely diagnosis if she had the following history?

- Peptic ulcer disease?**
- Bloody diarrhea?**
- History of an enlarged aorta?**

You gave her some analgesic and she became more comfortable.

She denied history of bloody diarrhea, peptic ulcer disease or history of enlarged aorta.

On physical exam there is generalized guarding and rigidity. There is no bowel sounds.

Q3. List your differential diagnosis at this point.

Q4. The nurse ordered an upright CXR. It is normal. Does it rule out any of your diagnosis?

Q5. Your resident did a bedside ultrasound. This is the image you see.



(Image credit: St. Luke's Roosevelt Emergency Ultrasound)

Q6. What does the dark lumen represent?

Q7. How can you tell whether this has ruptured or not?

Your patient's Vital signs are now as follow:

BP 90/60, HR 60, RR 24, Sat 85%. She appears lethargic and is difficult to rouse.

Q8. What is the most likely diagnosis at this point?

Q9. What orders would you give at this point?

Q10. Your patient's vital signs have not changed. The CT scanner is ready. Would you send her to CT?

The vascular surgeon arrives and takes her to the Operating Room.

Q11. Looking back, why do you think she was never tachycardic?

Q12. What make geriatric patients with abdo pain more challenging to diagnose?

Case 3: Abdo pain in a young female

Your patient is a 28 yo F with abdo pain x 3 days. Her pain started in her LLQ abruptly and is 8/10. She vomited once.

Her vital signs are as follow: BP 130/80, HR 110, RR18, Sat 99% RA, Temp 37.5C.

Q1. Which differential diagnosis is/are more likely if she has the following?

- **Hematuria?**
- **Fever?**
- **History of abdo surgery?**
- **Vaginal discharge?**
- **Dysuria and flank pain?**
- **She is 6 week pregnant?**
- **History of PID?**

The patient does not have hematuria, fever, dysuria, flank pain or history of abdo surgery. Her LMP (first day of last menstrual period) is 3 weeks ago. It was a bit lighter and she only bled for 2 days. She has a history of PID and has an IUD (Intrauterine device) in place.

Q2: What would you look for in the physical exam?

Her pelvic exam did not show any cervical discharge. She has LLQ/adnexal tenderness.

Q3. What is your differential diagnosis so far?

Q4. What investigations would you order?

Her urine BHCG is positive.

Q5. What is the most likely diagnosis?

You send her for an ultrasound. It shows a mass in her left adnexa that is highly suspicious for an ectopic pregnancy. You paged Obstetrics.

The nurse called you to the bedside because the patient's BP is 70/40. Her heart rate is 110.

Q6. What do you think has happened?

Q7. What treatment would you give this patient?

The obstetrics team comes and takes the patient to the OR.

Case 4: Epigastric pain

A 55 yo F comes in with epigastric pain for the past 2 hours after she had a big meal. She describes as a burning, pressure and rates 4/10. She is nauseated but did not vomit. She was a bit sweaty.

Her past history includes Diabetes and hypertension. She takes Metformin Amlodipine and Aspirin. She drinks 6-8 beers per day. She is a 40 pack year smoker.

Her vitals are the following:

HR 100, BP 130/80, RR 18, Temp 37.5, Sat 99% on RA

Q1. What is your differential diagnoses at this point? What are the red flags for each diagnosis?

On physical exam, she is mildly tender in the epigastrium. Her Murphy's sign is negative.

Q2. What investigations would you order based on your differential diagnosis?

An ECG shows the following:

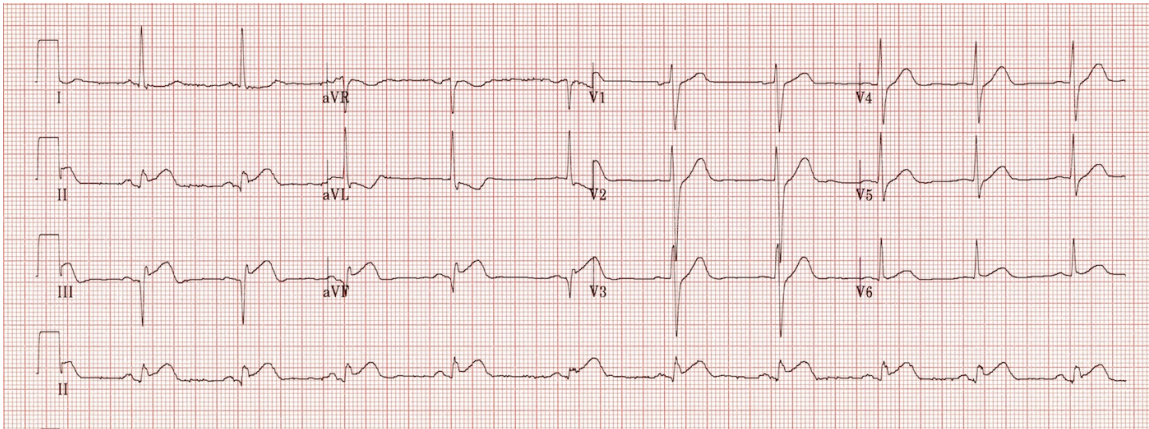


Image credit: Dr. Ed Burns, Life in the Fast Lane blog

Q3. What is the diagnosis?

Q4. What treatment would you give this patient?

You called the cardiology team who took the patient to the cath lab.