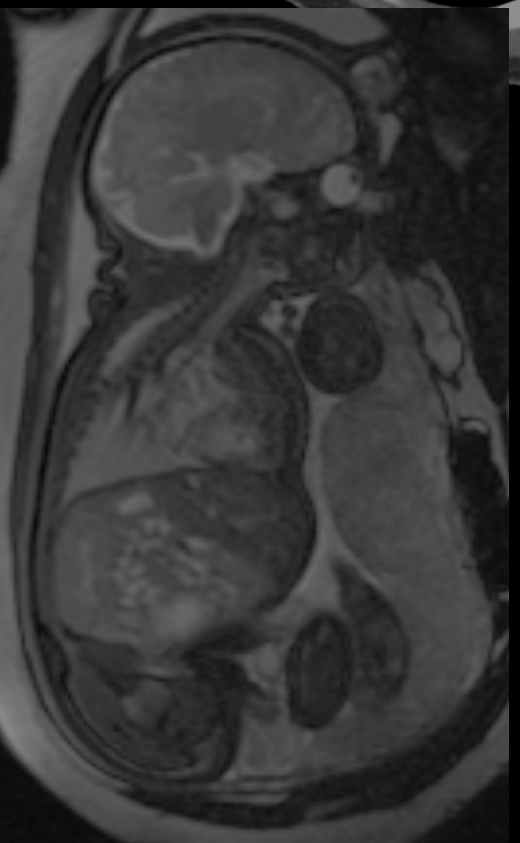
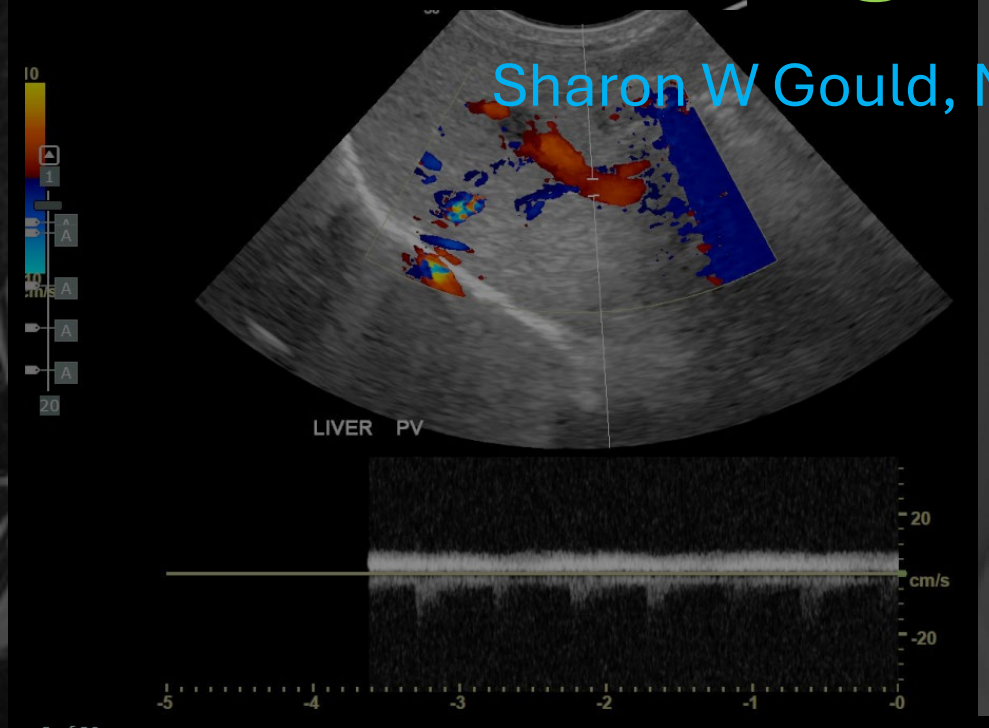
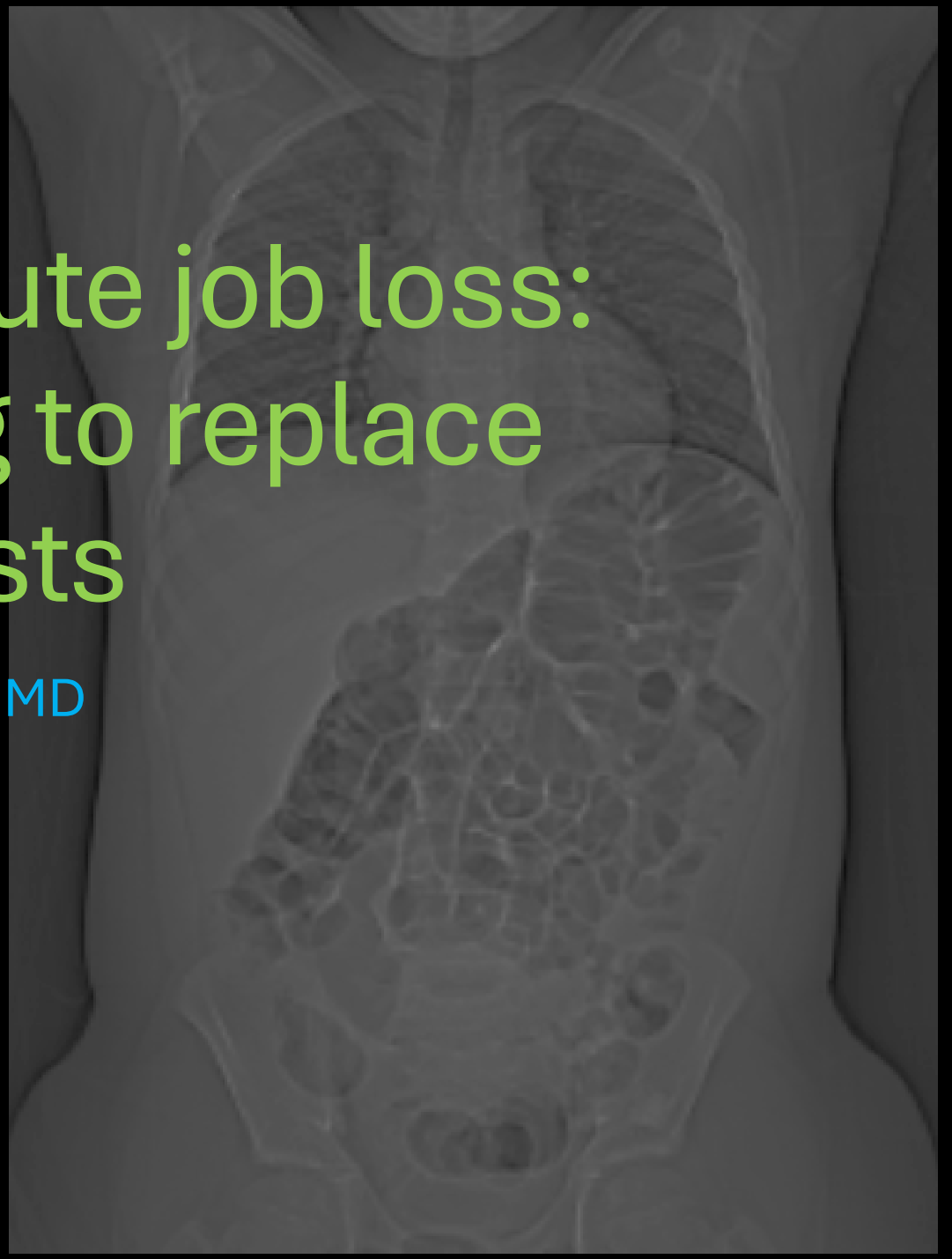
No evidence of acute job loss: Why AI isn't going to replace radiologists

Sharon W Gould, MD







What is a radiologist?

RADIOLOGIST

What my family thinks I do

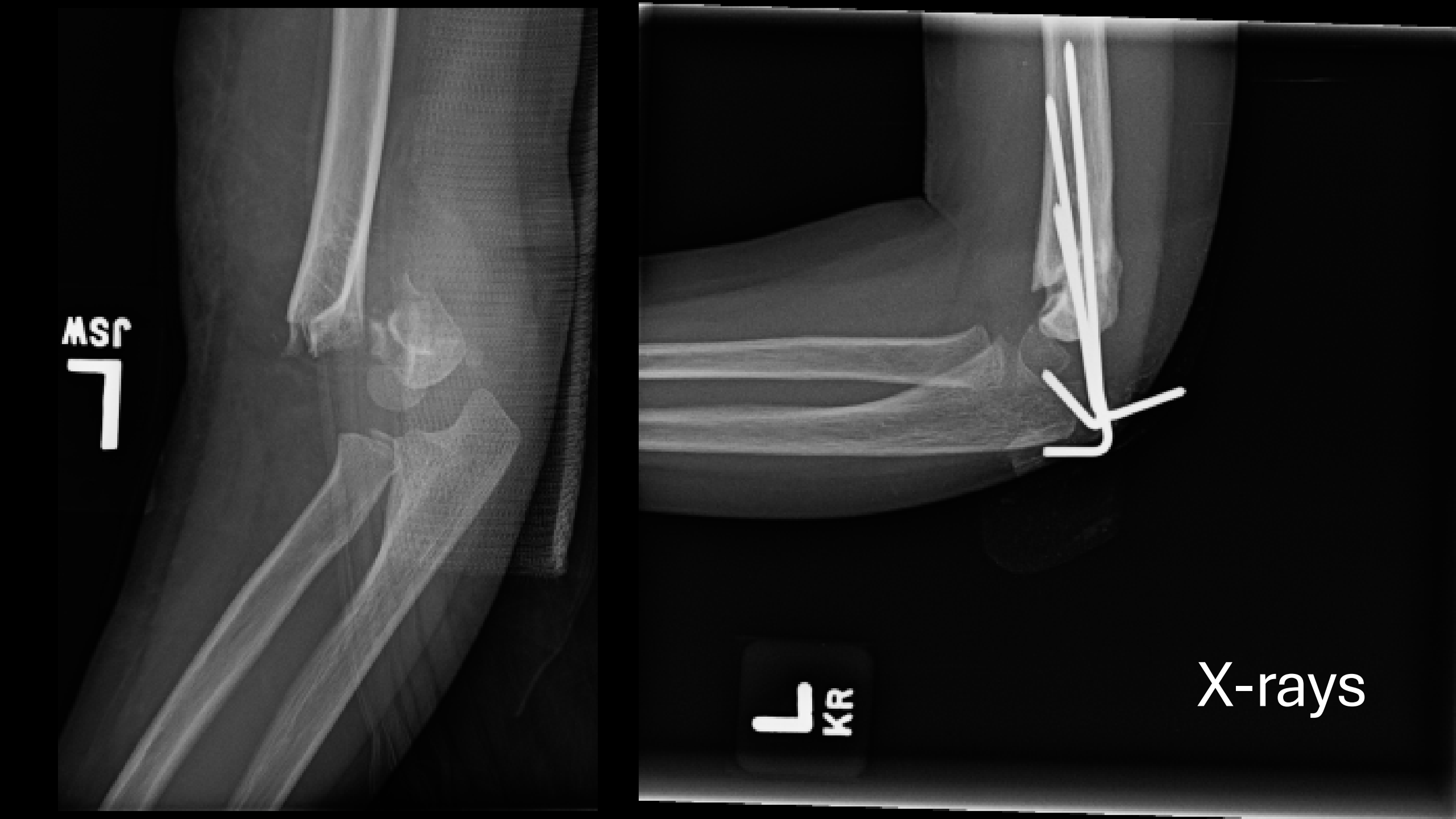
What society thinks I do

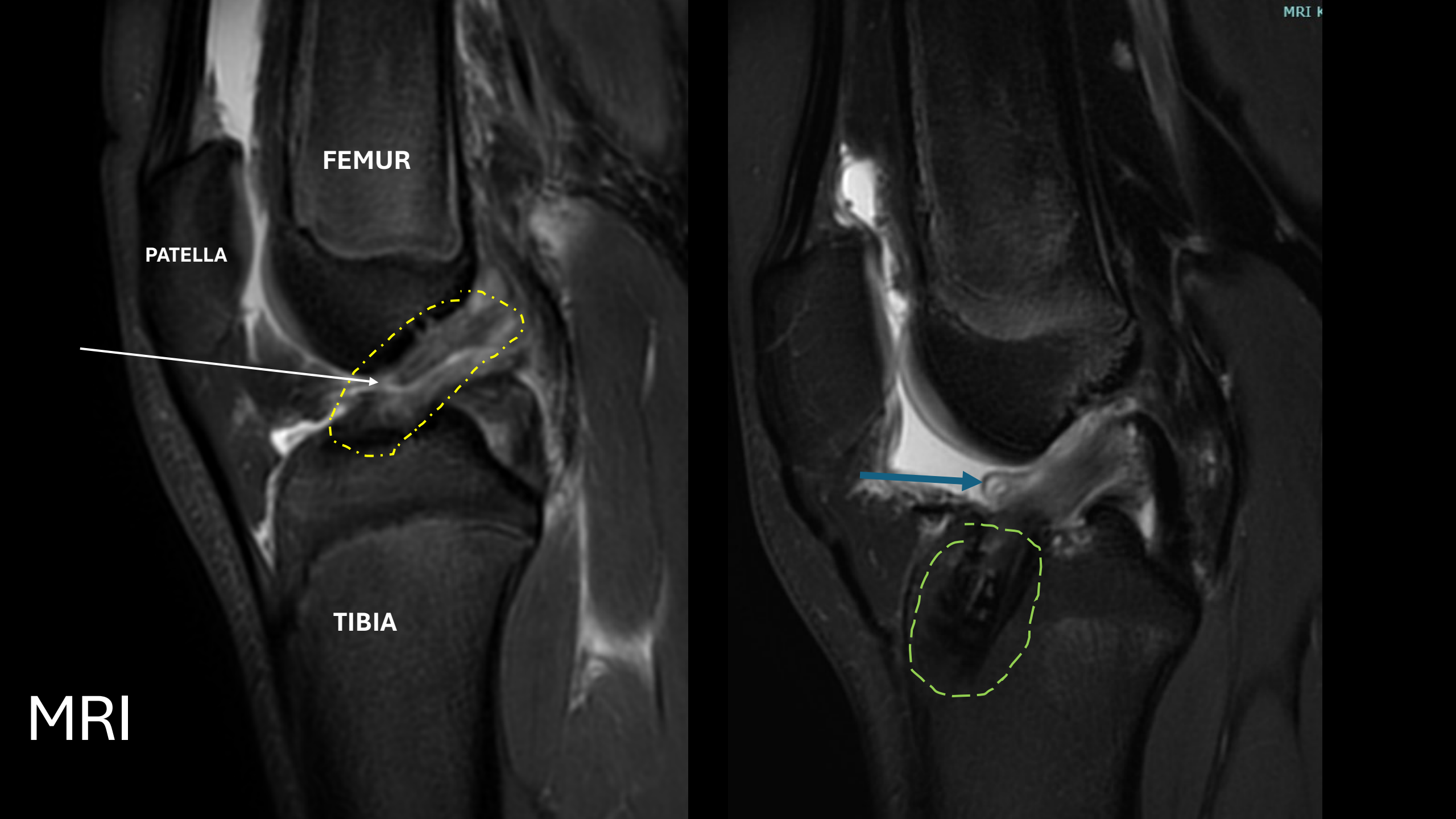
What the ER intern thinks I do

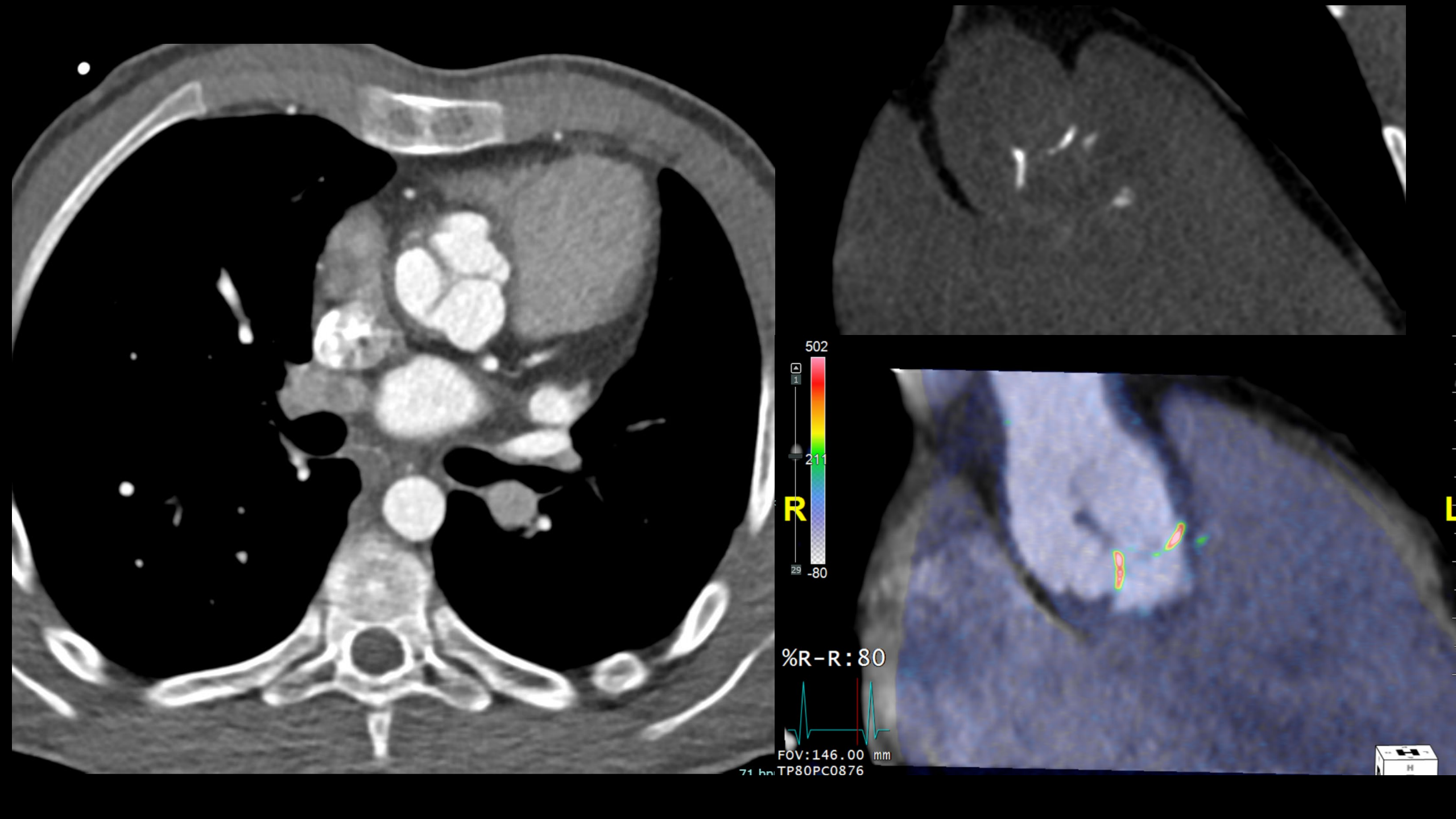
What the surgeons think I do

What I think I do

What I actually do


X-rays


FEMUR
PATELLA
TIBIA
MRI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211
-80
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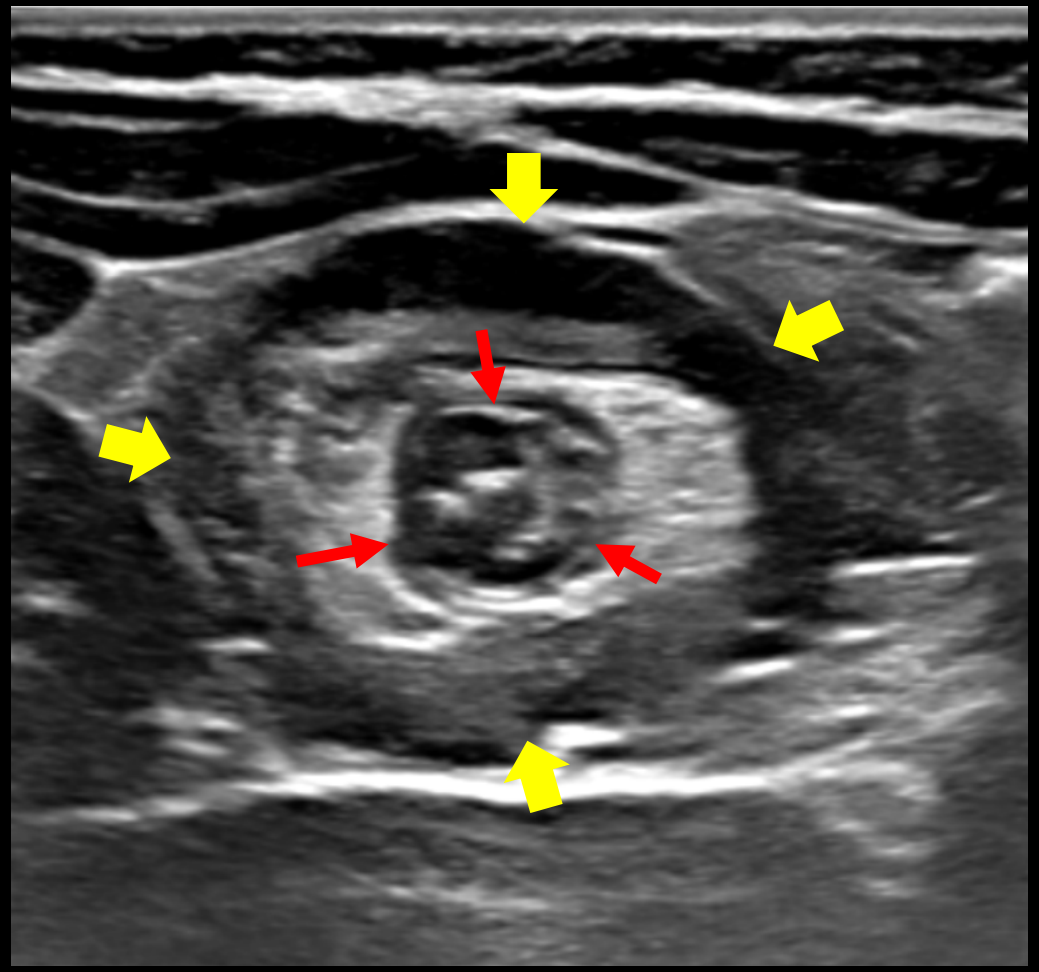
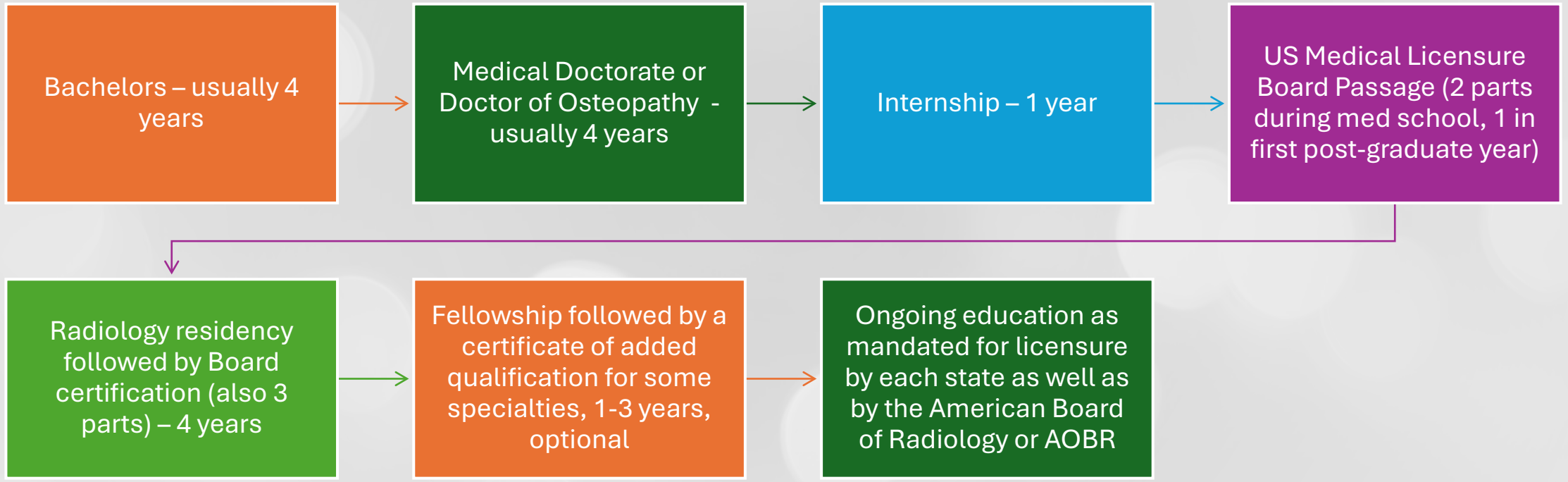
%R-R:80
FOV:146.00 mm
TP80PC0876

Ultrasound



Fluoroscopy

Pathway (for US medical graduates)



Why would anyone want to do this?

(My back story in brief)

Radiology is the best!

We are in everyone's business!

(Touches on all fields of medicine-even dermatology)

Really cool toys

Yes, we do have patient contact

We are not only helping patients, we help other doctors help their patients (and we get to see ALL of the most interesting cases!!)

You can cover a little of everything or specialize.

Pediatric Radiology:

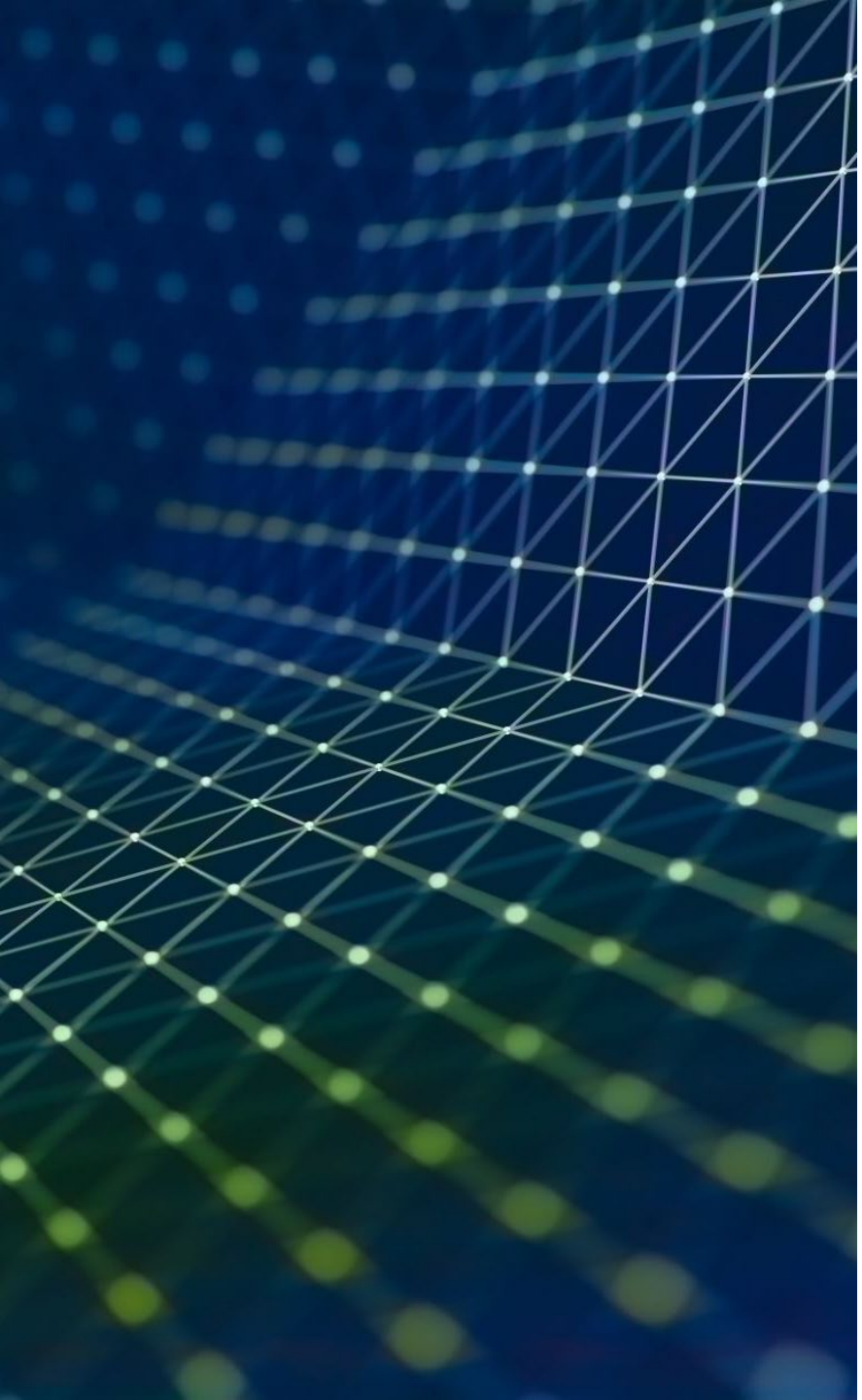
Really cute patients

Really interesting cases

Typical Day

- Arrive a little before 8 AM (occasional 7 AM conferences)
- Log in – workroom has low lighting, stations have 4 large monitors, adjustable desks
- Begin reading with frequent collaboration with other rads, teaching residents working in the same room, consulting with docs from other specialties.
- May ultrasound some cases or do fluoroscopy cases on assigned days.
- One-2 meetings or conferences a few times per week.
- Also may cover evening, overnight, weekend, and holiday shifts.
- On call for fluoroscopic cases that may arise overnight or on weekends once every couple of months.

Case Presentation



History

- 14 y.o. male
- Intermittent fever and lower left abdominal pain for 2-3 weeks
- Pain is aggravated by pressure and changes in position
- Pain improves after urination, after a BM, and with a heating pad.
- 2 episodes of diarrhea the previous day, no blood in the stool
- 7 lb weight loss over the past 2 weeks
- Fatigue and decreased appetite

Family history

- Nothing related

Medications

- Nothing related

Immunizations

- Complete and up to date

Physical exam

- Tender in the left lower abdomen
- No mass
- No hernia
- No rebound tenderness (a sign of peritonitis)

Vitals

- Normal with no fever

Labs and imaging

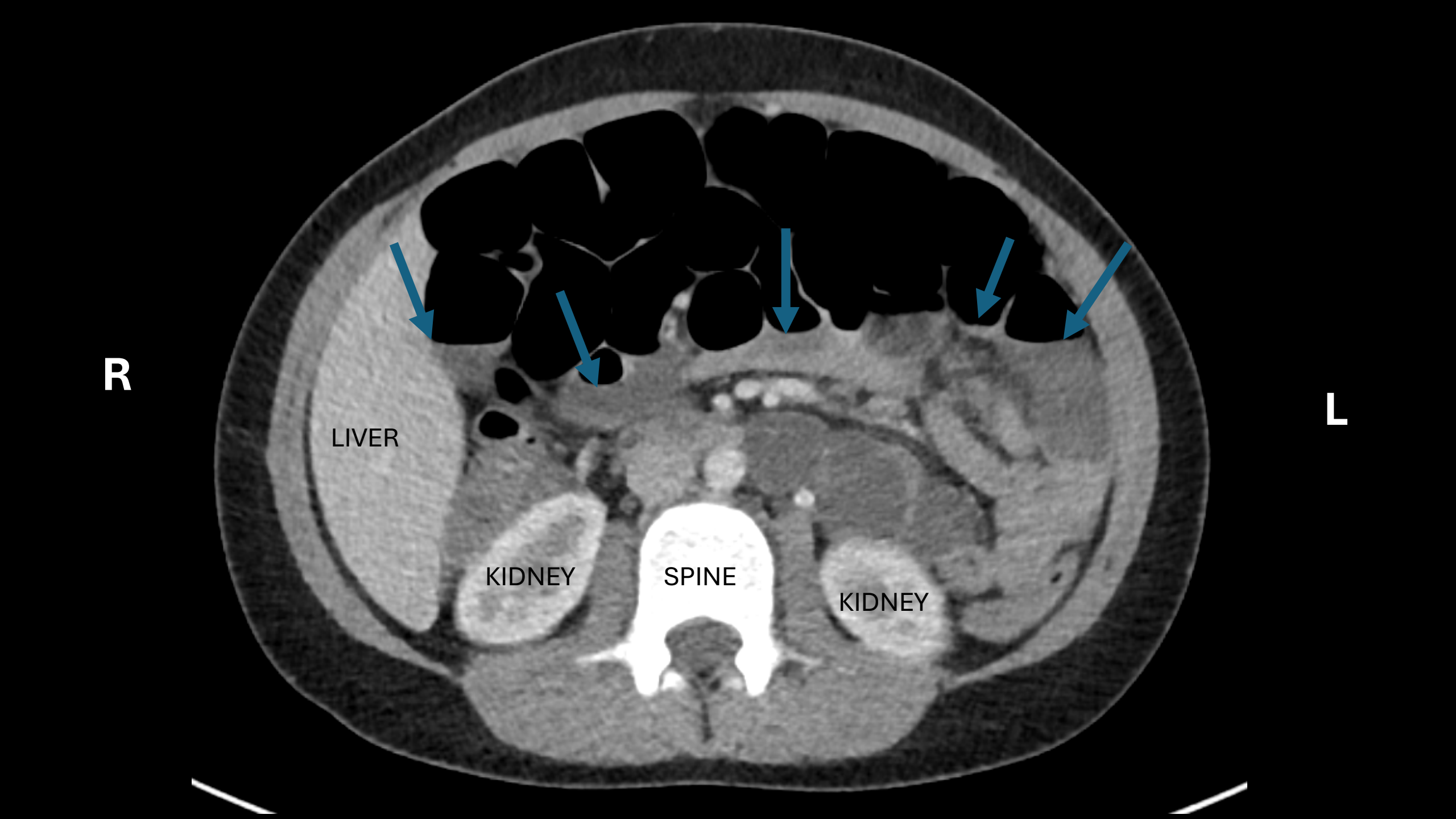
- Remarkable for an elevated white blood count
  - No viruses detected
- Abdominal X-ray was normal

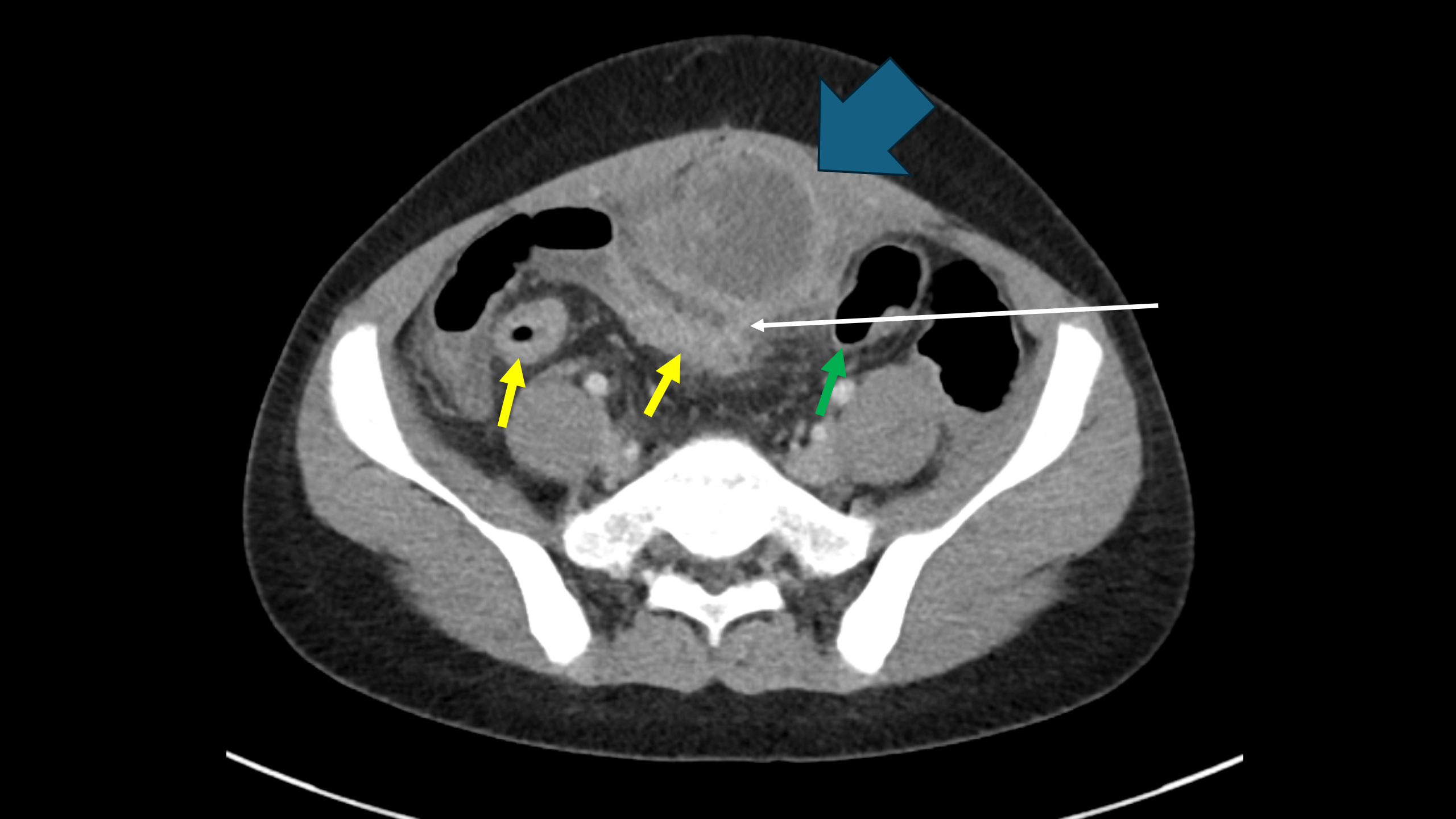
Follow-up

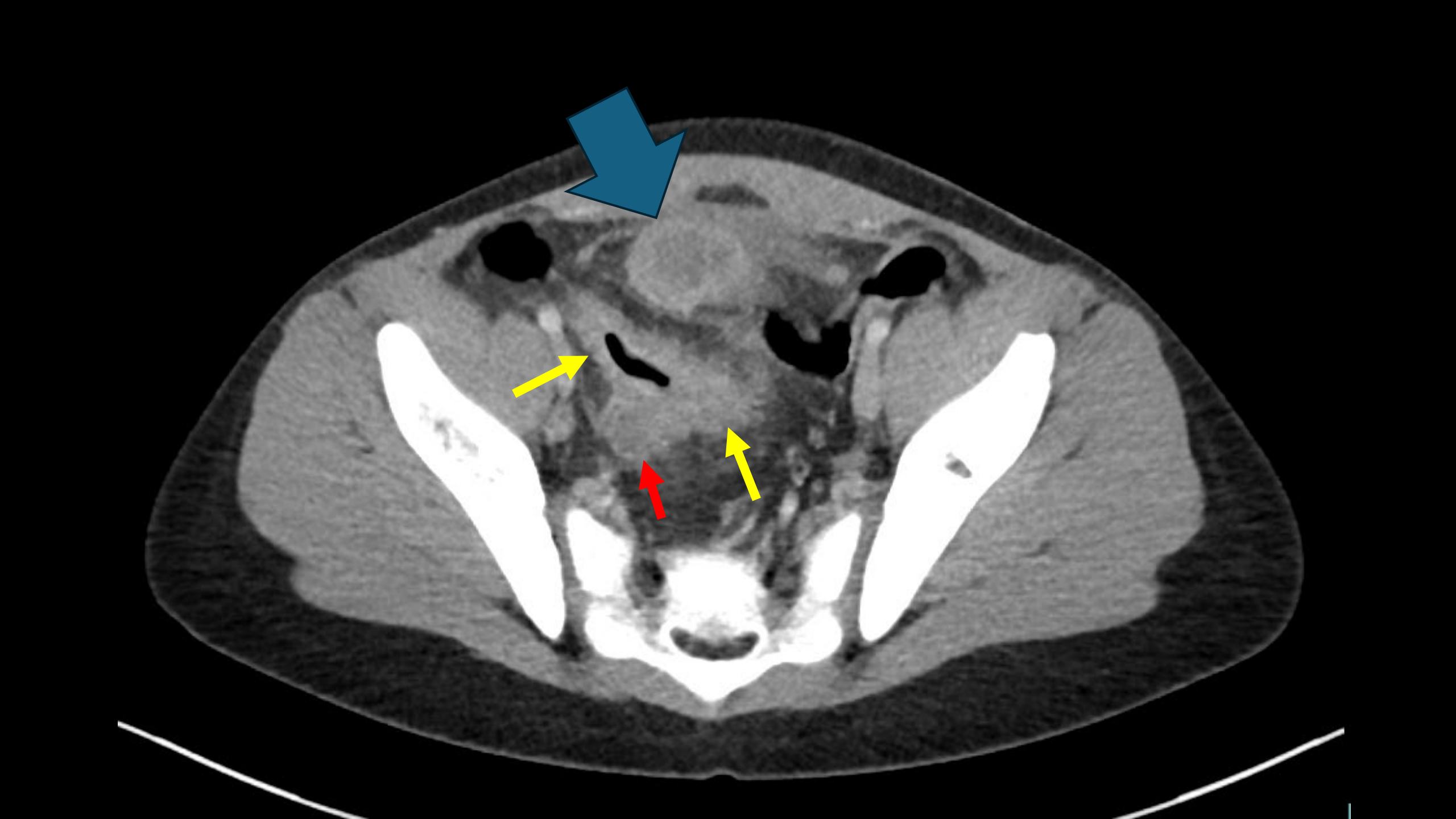
- Patient was referred to Gastroenterology by their Pediatrician
- Again found lower abdominal tenderness. Continued discomfort relieved by urination.
- Inflammatory markers were elevated on bloodwork.
- Possible causes: Inflammatory bowel disease, chronic urinary tract infection, malignancy, Celiac disease
- Insurance denied measurement of calprotectin – a protein that is elevated in inflammatory bowel disease.
- Patient scheduled for ultrasound of the kidneys and bladder as well as for a consult with Urology 3-4 weeks later.

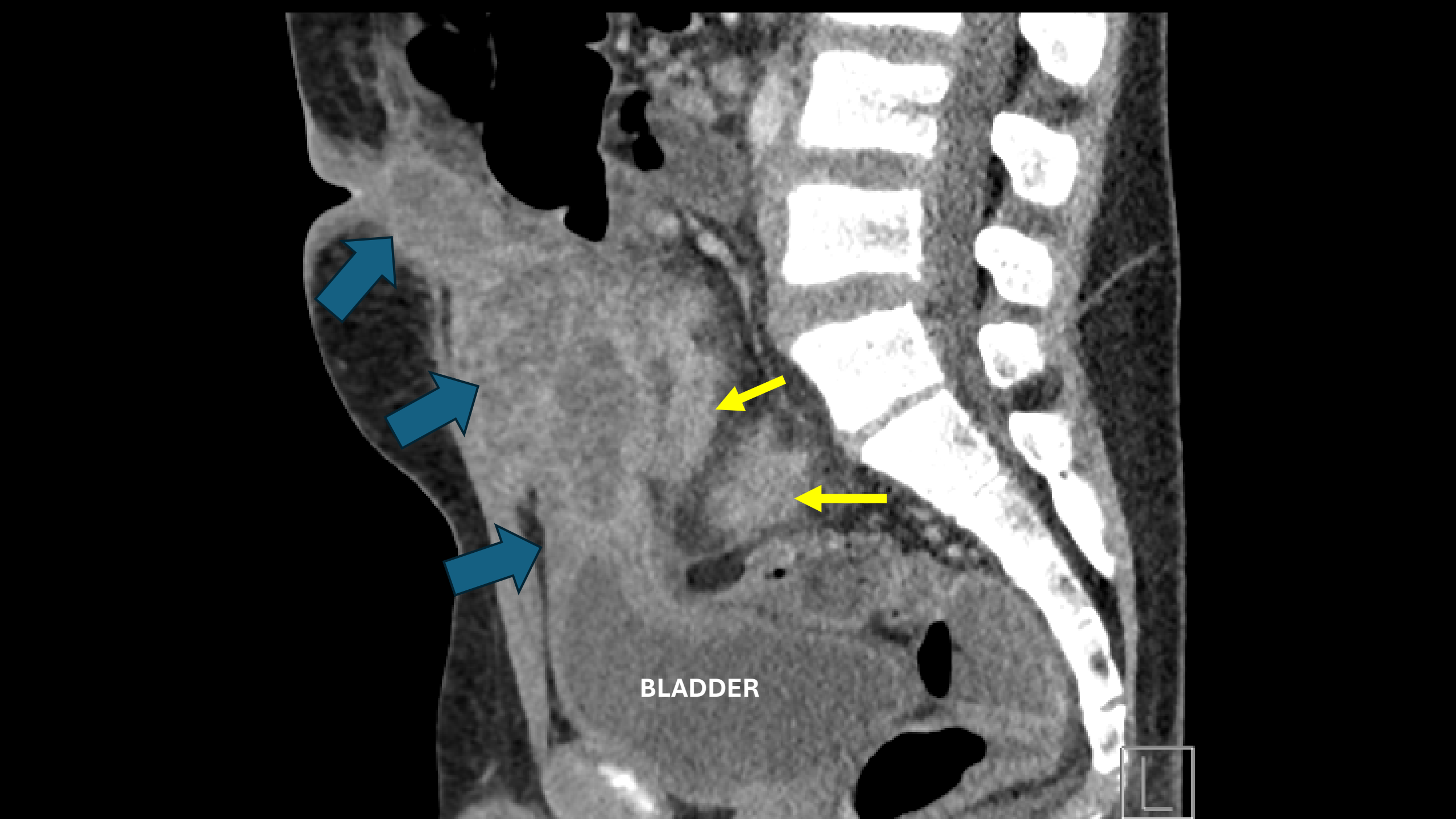
2 weeks later

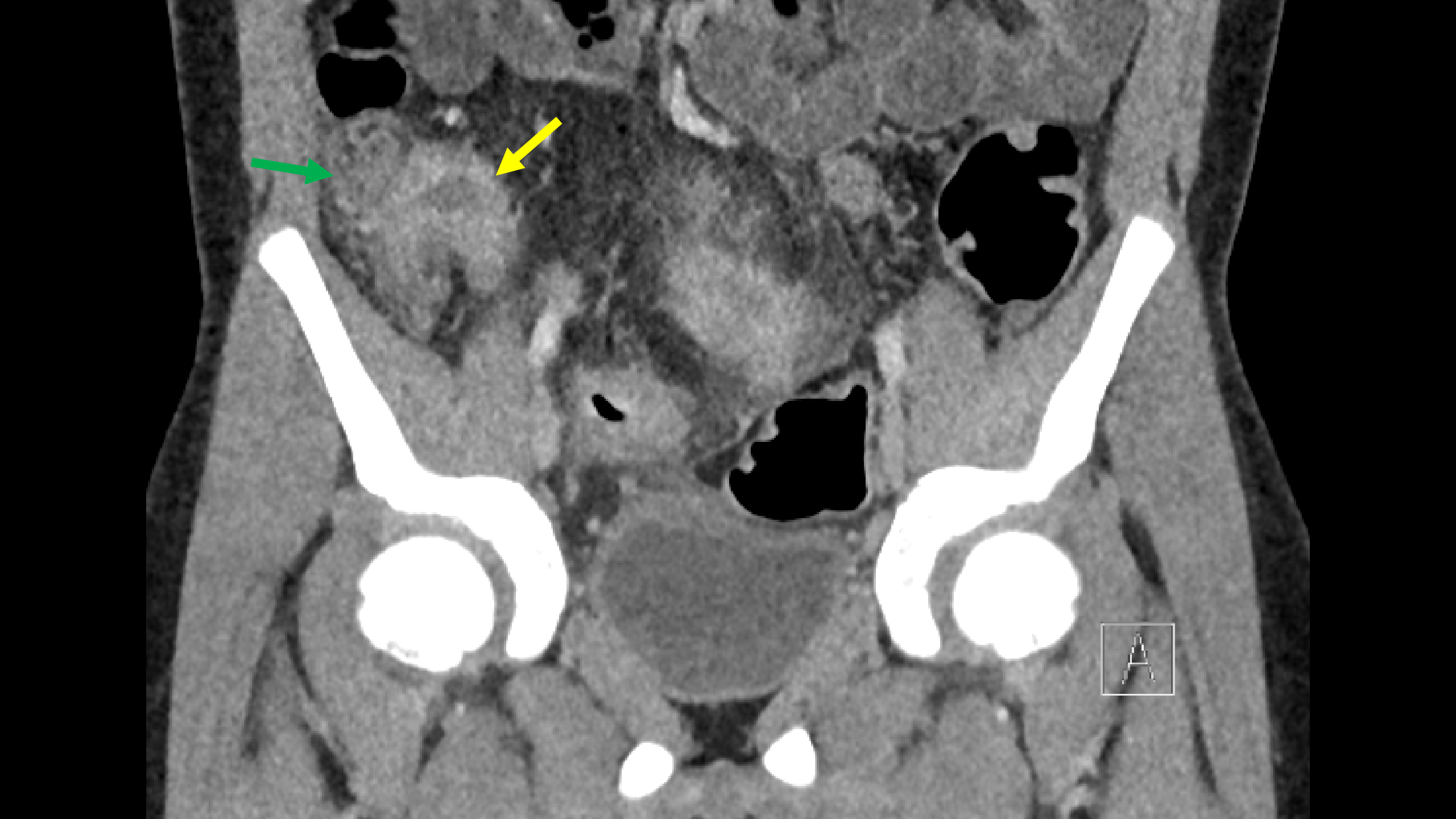
- He presents to the Emergency Department with worsening pain and weakness and has now lost a total of 17 lbs in one month.
- CT scan was ordered.


R
L
LIVER
KIDNEY
SPINE
KIDNEY





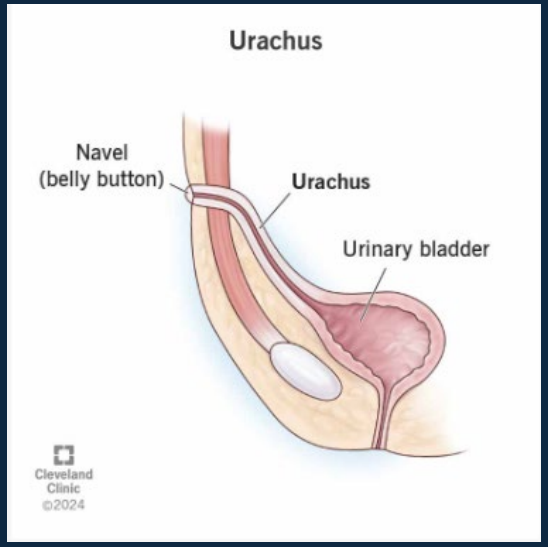

BLADDER
L


A

Diagnosis

- Crohn’s Disease
  - Inflammatory bowel disease
  - Usually the end of the small intestine, can be anywhere
  - Often affects deep layers of the bowel wall
  - May extend through the bowel wall
  - Medications suppress the immune system and may achieve remission.

- Urachal Remnant
  - Congenital anomaly - Persistence of part of the urachus
  - May open at the belly button and/or the bladder or neither.



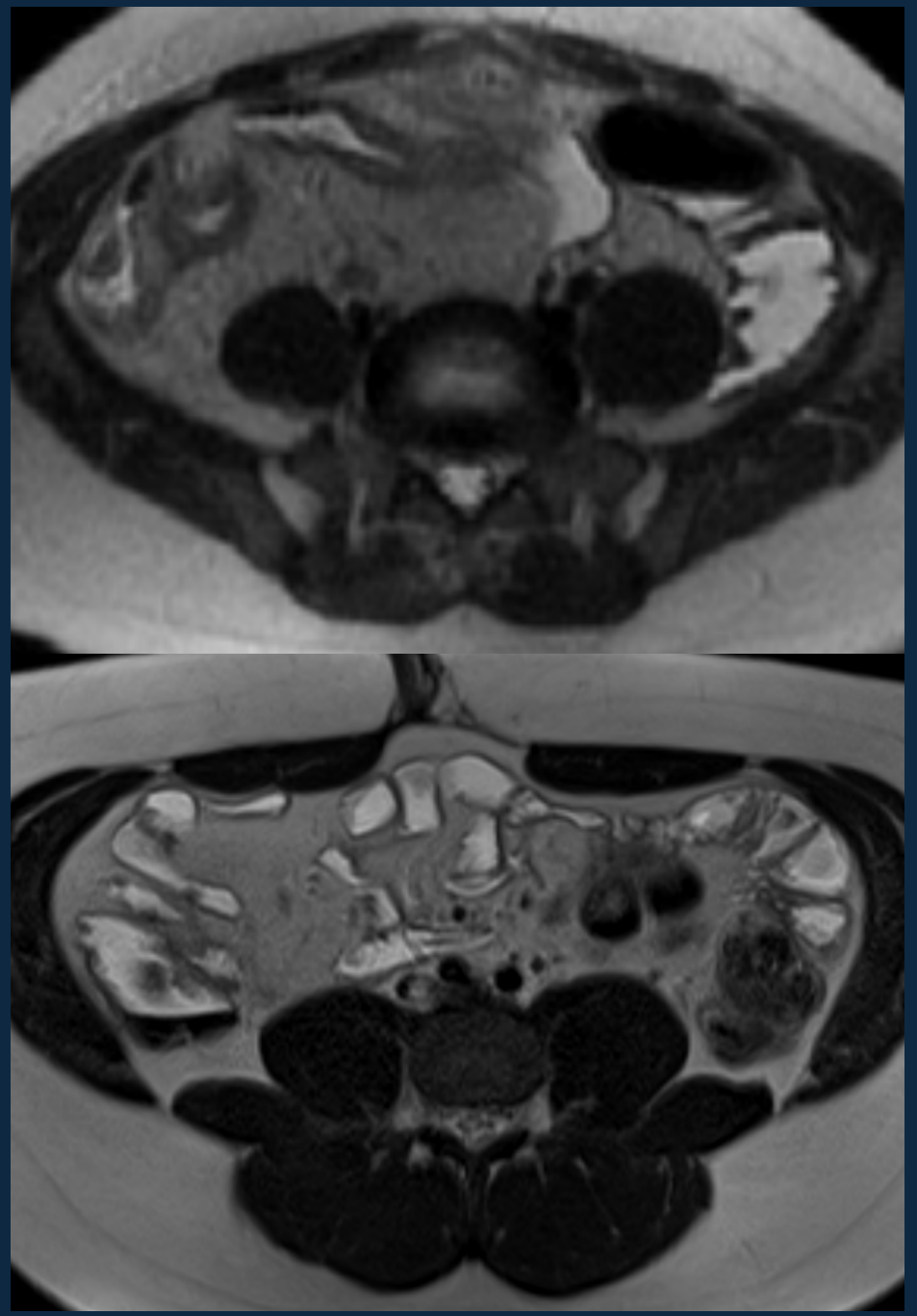
https://my.clevelandclinic.org/health/body/16597-urachus

Treatment

- Abscess drainage by Interventional Radiology
- Central intravenous line place by interventional radiology for IV feeding
- IV antibiotics
- With pain improvement after abscess drainage, he could resume eating and was switched to oral antibiotics.
- Was sent home to complete antibiotics to return for colonoscopy and eventual removal of the urachal remnant.

Radiology’s role in IBD

- Initial diagnosis
- Extent of disease – helps determine approach to therapy
- Imaging of disease flares and complications
- Monitoring response to therapy.



What about AI?

Does AI Help or Hurt Human Radiologists' Performance? It Depends on the Doctor

New research shows radiologists and AI don't always work well together

Research | *4 min read*

By EKATERINA PESHEVA | March 19, 2024

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ANNALS OF MEDICINE & SURGERY

EDITORIAL ▸ Ann Med Surg (Lond). 2025 Sep 30;87(11):6944–6945. doi: 10.1097/MS9.0000000000003877

Artificial intelligence in radiology: promising tool or overhyped trend?

Sardar Umer Irshad [a], Sardar Remsha Irshad [b], Malik Ahsan Jamal [a], Sweeba Rehman [a], Zain Ul Abideen [a], Ahmad Mohammad Saifan [c,*], Irfan Ullah [a]

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HEALTH & DISEASE

AI won't replace radiologists, but will dramatically change their jobs

Ten years ago, a pioneering AI scientist predicted that computers would replace human experts as readers of medical images. It hasn't exactly worked out that way.

By Lola Butcher | 07.22.2026

AI – Threat or boon?

- Pros
  - Can take over basic repetitive measurements and analyses
  - Can aid detection of abnormalities according to algorithms
  - Can shorten interpretation times increasing efficiency
- Cons
  - The human body does not adhere to algorithms – we have to “think outside the box” often to arrive at the correct diagnosis.
  - We alter how we get the images to meet the patient’s needs frequently – so images are not obtained in a typical way rendering AI algorithms invalid.
  - Diagnoses are sometimes arrived at after consultation with physicians caring for the patient relying on direct communication.

My prediction? There will be change, but the future looks bright!

Thank you!

Questions?