



international bowel
ULTRASOUND GROUP

Not all you see is IBD

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Dartmouth Hitchcock Medical Center, Lebanon NH USA

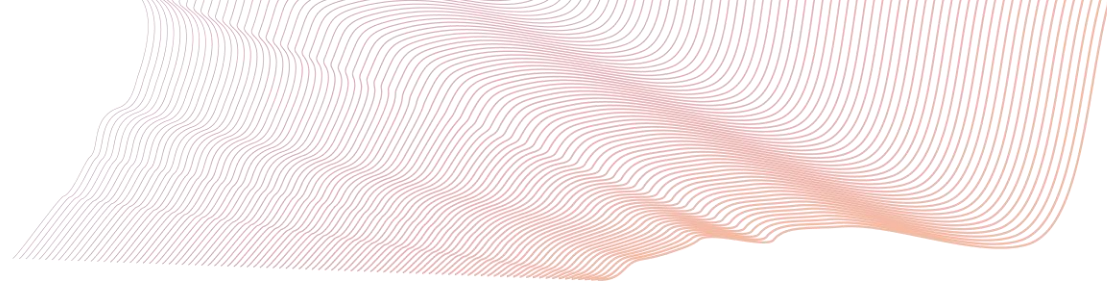


Seattle, WA USA – October 16, 2026

Disclosures

Advisory boards: AbbVie, Bristol Myers Squibb, Celltrion

Executive board: iUSCAN (Chief Programming Officer)

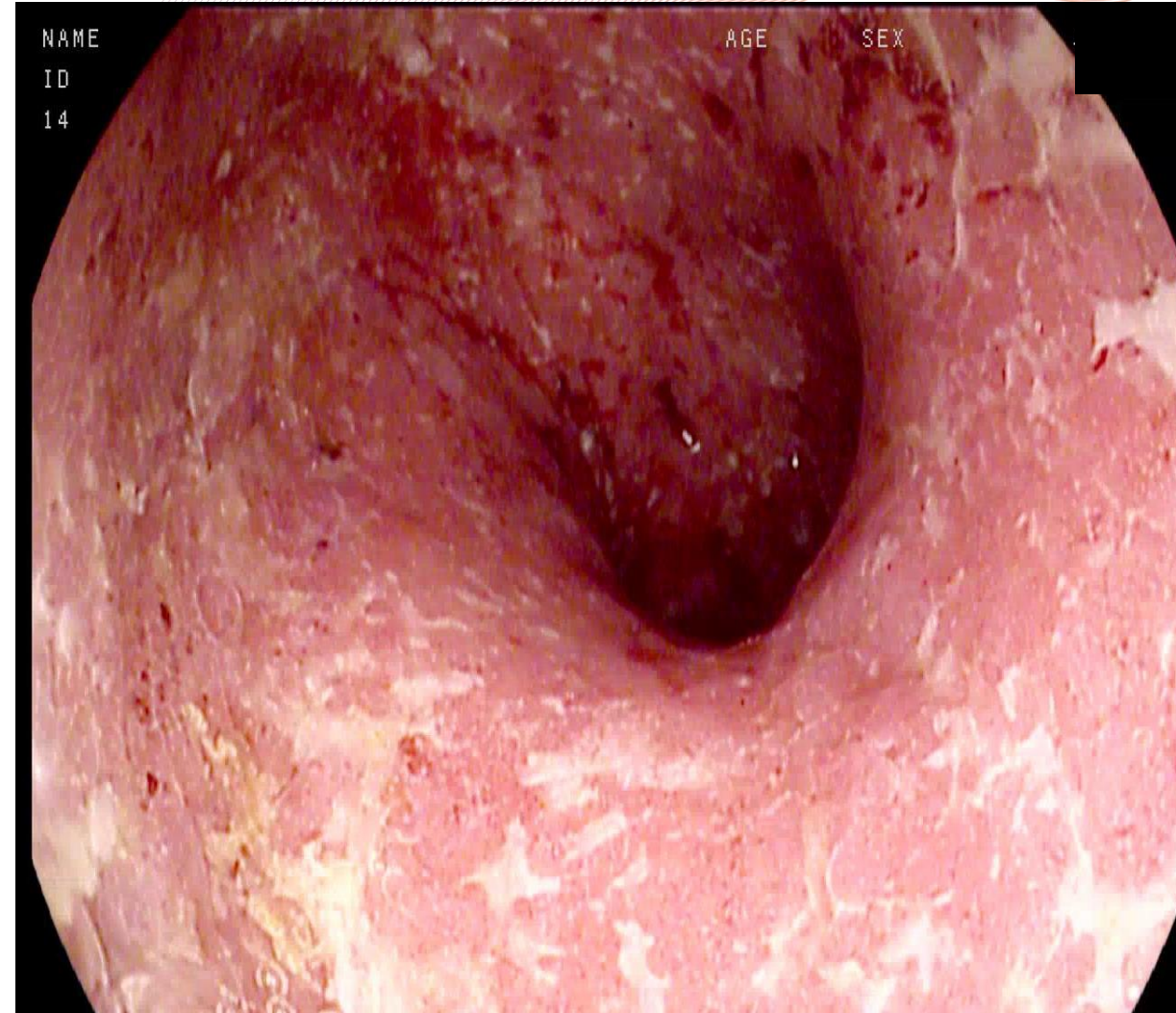


Valerie, 35 year-old female

- Family history of Crohn's disease and kidney cancer
- Non-smoker; no alcohol use
- Polycystic ovary syndrome
- **07/2019:** abdominal pain and bloody diarrhea
- Stool cultures: negative
- Colonoscopy: ulcerations from the transverse colon to the rectum
- Histology confirmed ulcerative colitis
- Topical and oral mesalamine

05/2020

- Hospitalized for acute severe ulcerative colitis
- Initial improvement with intravenous prednisone, then symptoms worsened
- Sigmoidoscopy: diffuse ulcerations, friable mucosa. Histology: CMV colitis
- Ganciclovir 5 mg/kg e.v. BID for 2 weeks



06/2020

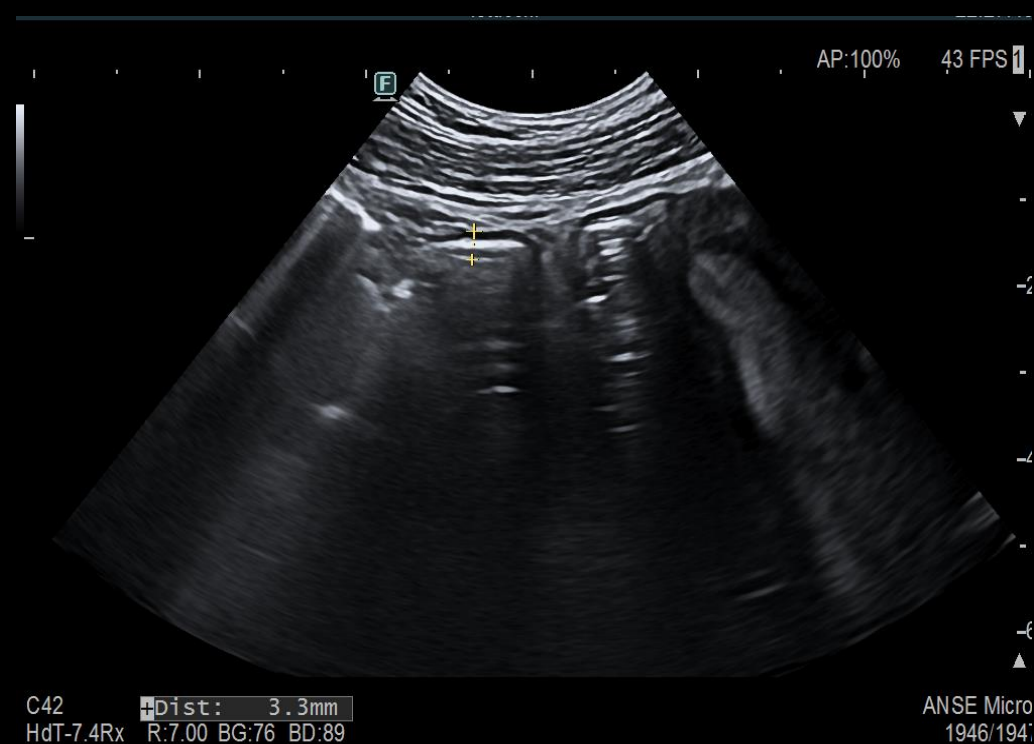
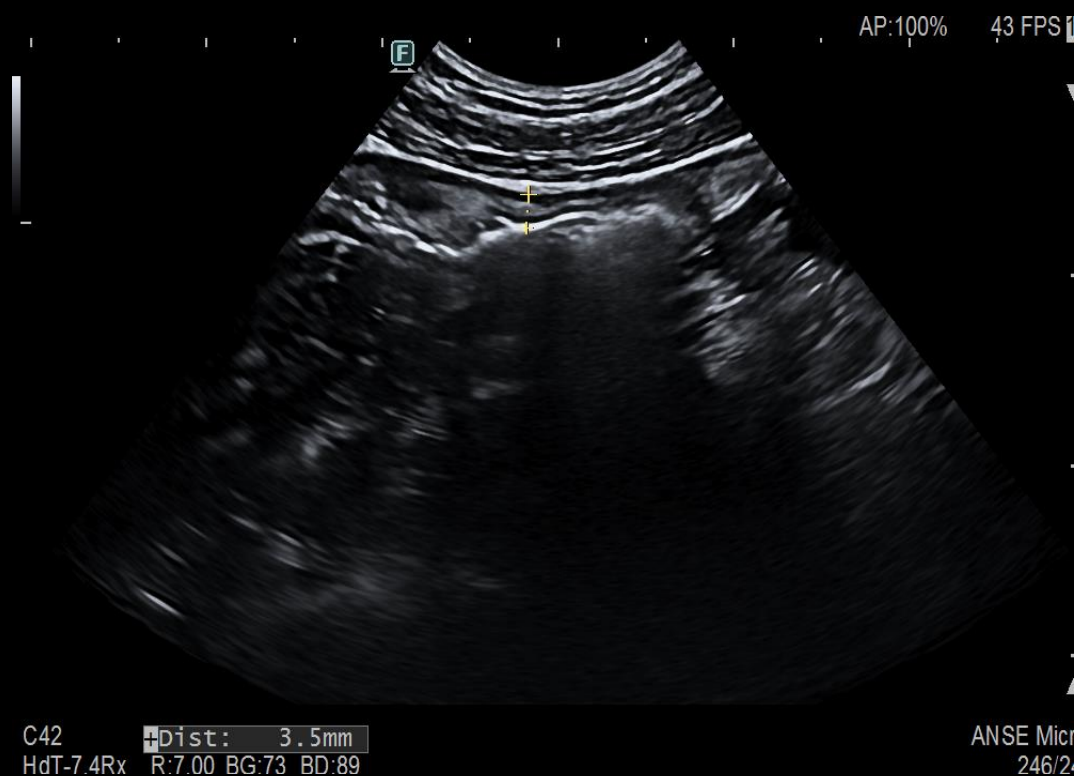
- 3-4 stools/day with traces of blood and mucus
 - Persistent urgency
 - Calprotectin 545 mcg/g
 - Started infliximab and azathioprine
-
- By week 14 she is asymptomatic, fecal calprotectin 87 mcg/g
 - Week 22 follow up arranged
 - However, 2 weeks later calls with RLQ pain, fever, 4-5 non-bloody bowel movements daily

Acute RLQ pain, fever

- WBC 9000/mm³, Hgb 13.7, CRP 5.5 mg/L
- Fecal calprotectin 78
- Stool cultures: negative

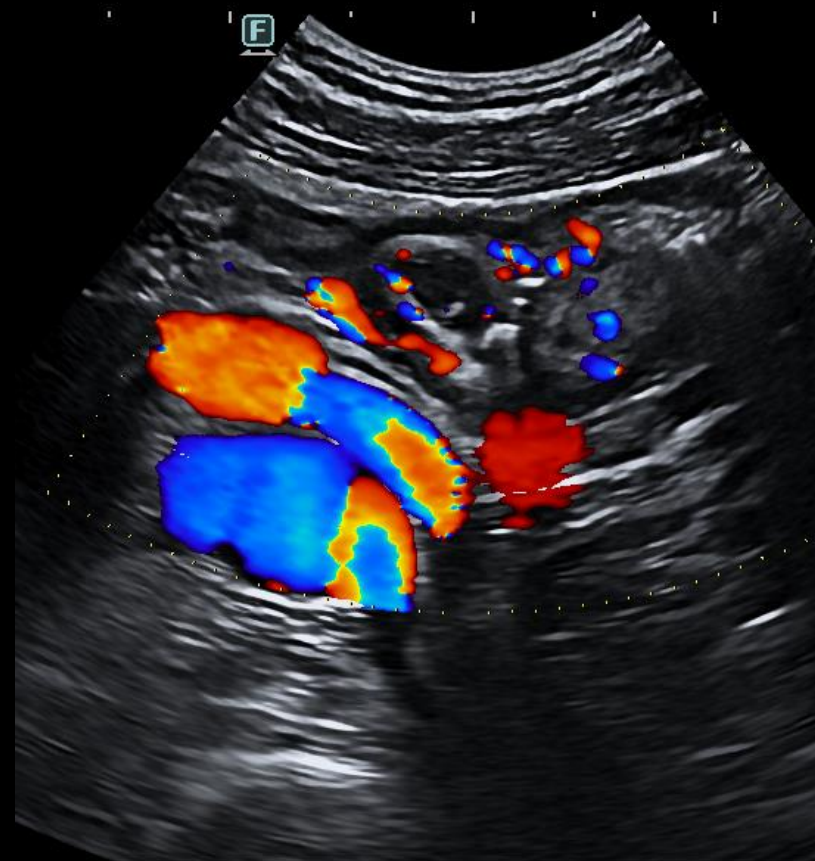


Intestinal ultrasound: terminal ileum and colon





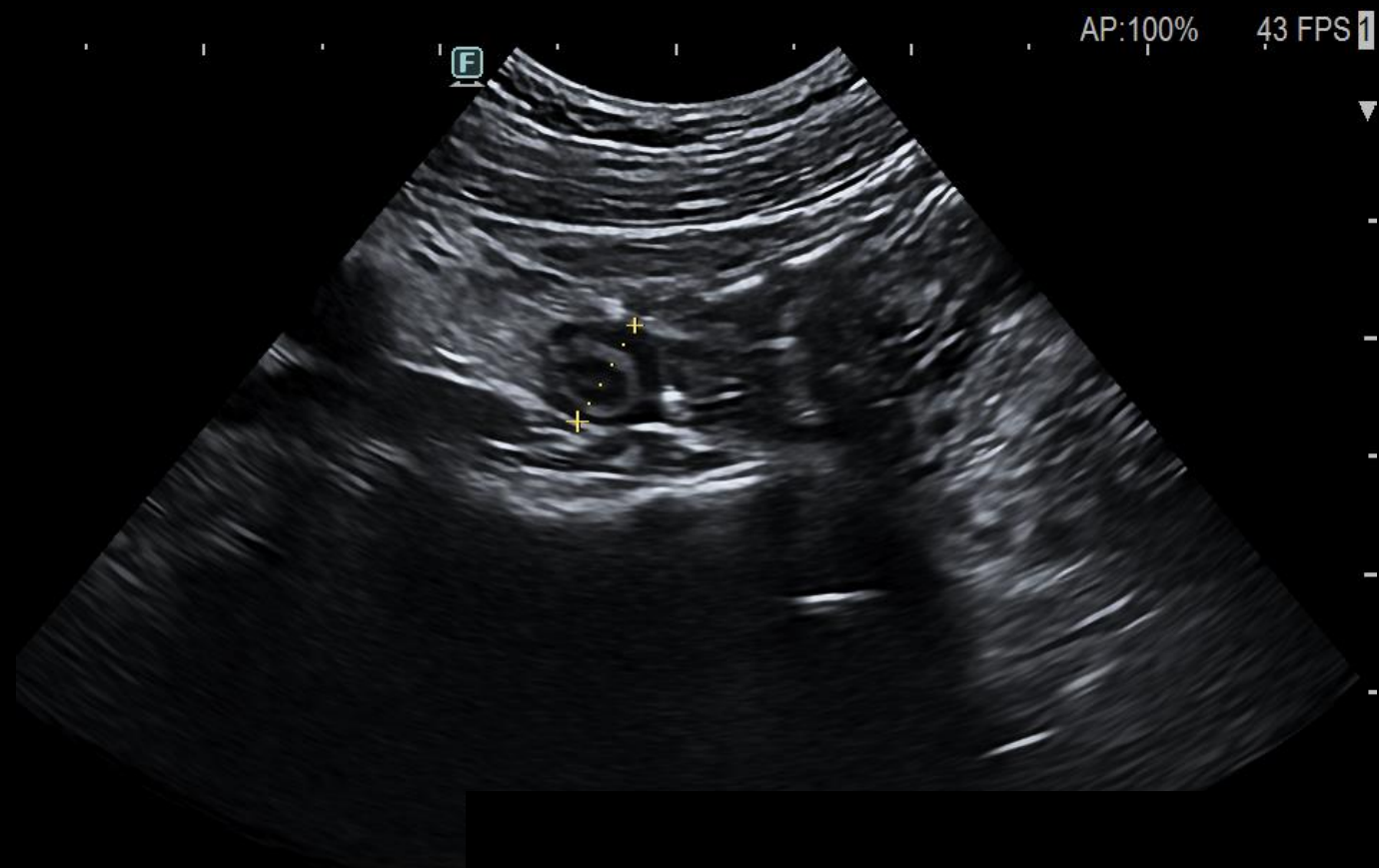
Intestinal ultrasound:



What's your guess?



Intestinal ultrasound: acute appendicitis



Dist: 9.5mm

-7.4Rx R:7.00 BG:73 BD:89

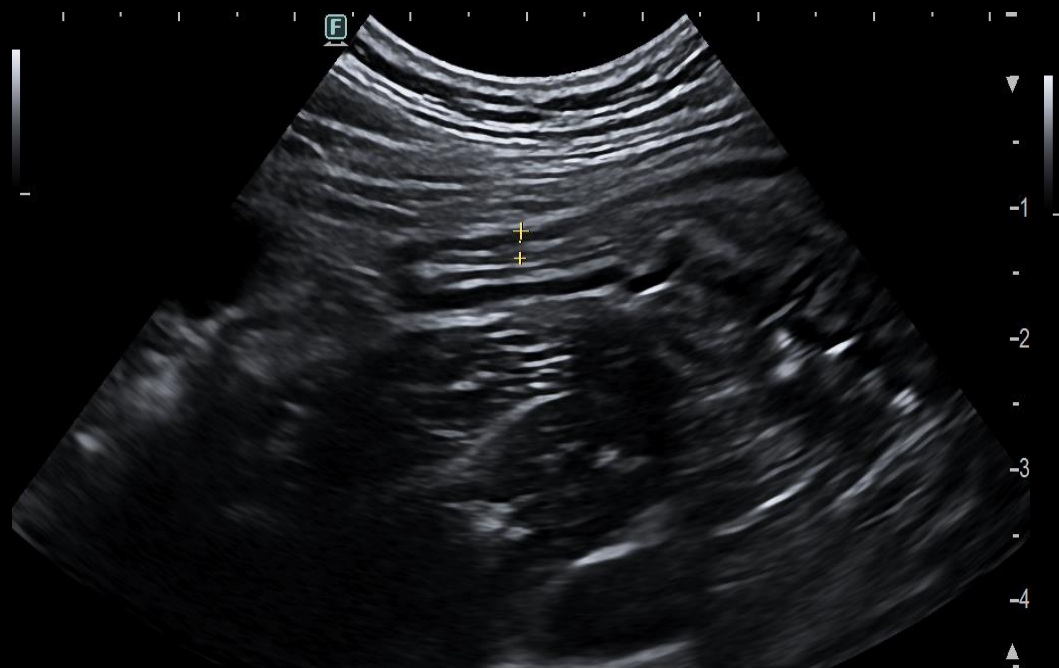
**Double antibiotic therapy:
ciprofloxacin + metronidazole for 10 days**

After completing 2-week antibiotic course

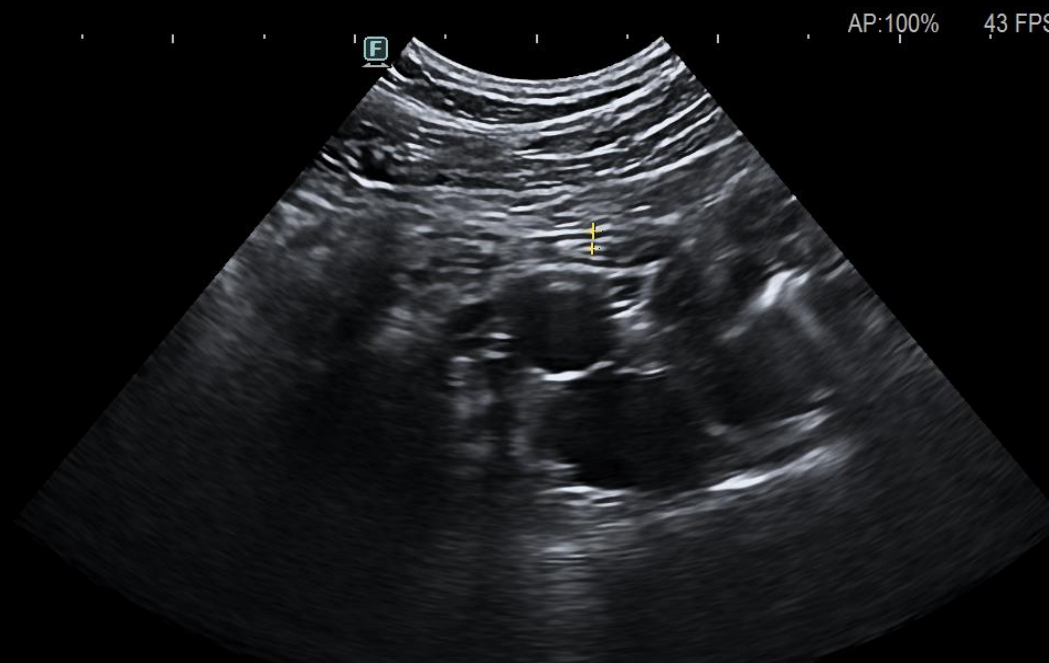
- Resolution of diarrhea, no fever, no abdominal pain



Intestinal ultrasound



C42
HdT-7.4Rx
Dist: 2.1mm
R:5.00 BG:73 BD:89

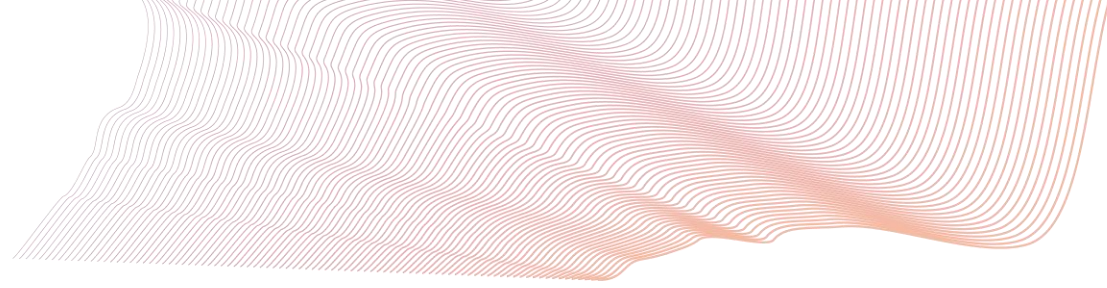


ANSE Micro. C42
343/348 HdT-7.4Rx
Dist: 1.9mm
R:7.00 BG:76 BD:89

ANSE Mic
1119/1'

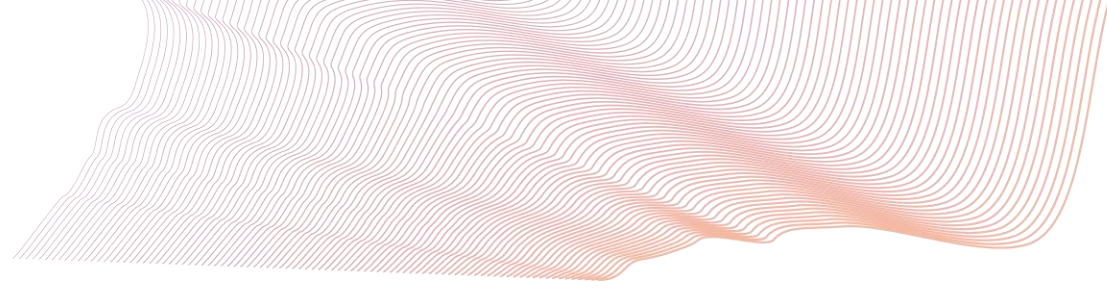
Acute uncomplicated appendicitis

- European and US Guidelines agree on laparoscopic appendectomy as gold standard for uncomplicated appendicitis with non-operative antibiotics a reasonable alternative in select patients
- First line imaging strategy:
 - European (EAES/WSES): ultrasound first; selective use of CT
 - United States (IDSA): abdominal CT in non-pregnant adults
 - Agreement on ultrasound first in pediatric and pregnant patients



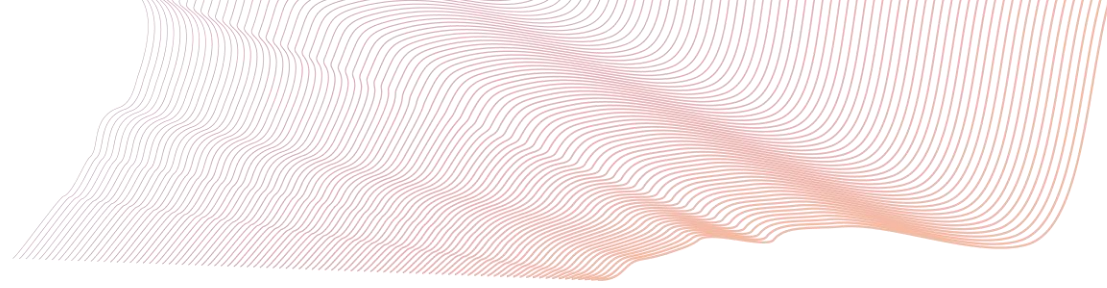
Post-appendicitis follow up

- Colonoscopy at week 24: Mayo 0
- Stopped azathioprine week 24, continued on infliximab monotherapy
- In symptomatic and endoscopic remission



Sophie, 20 year-old female

- College student
- Family history of ulcerative colitis
- Diarrhea for 10 days, 8-9 stools/day
- No blood, presence of mucus
- Urgency
- Mild abdominal pain
- Weight loss of 2 kg (4.4 lb)
- **Next steps?**



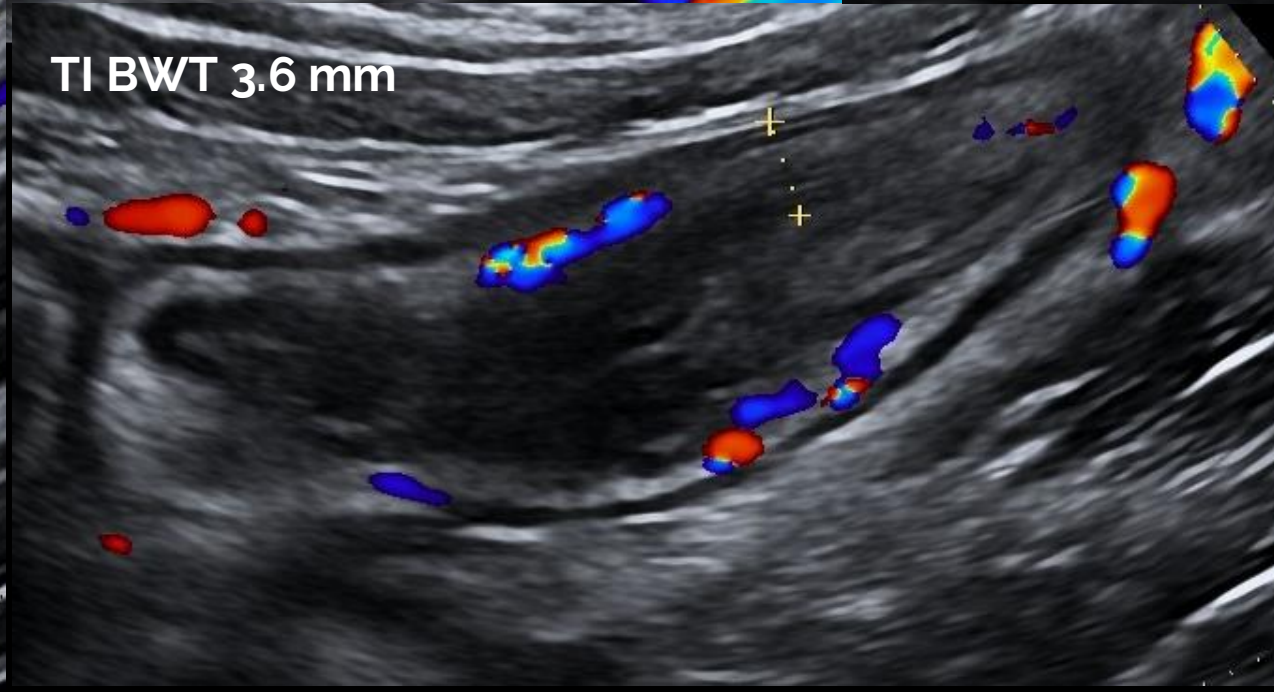
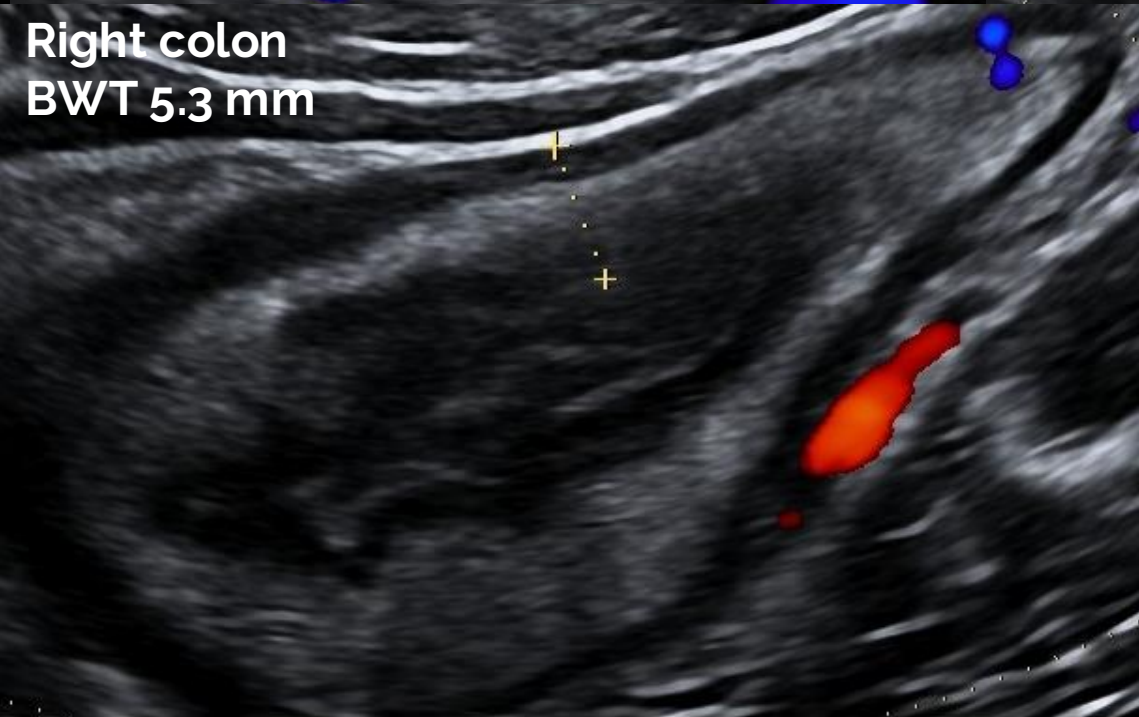
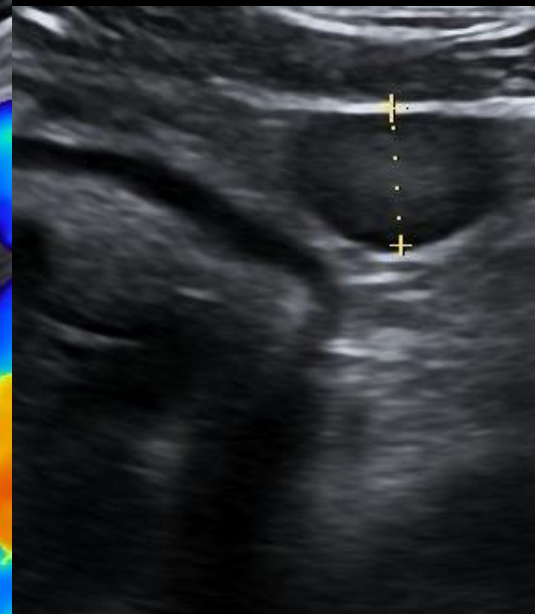
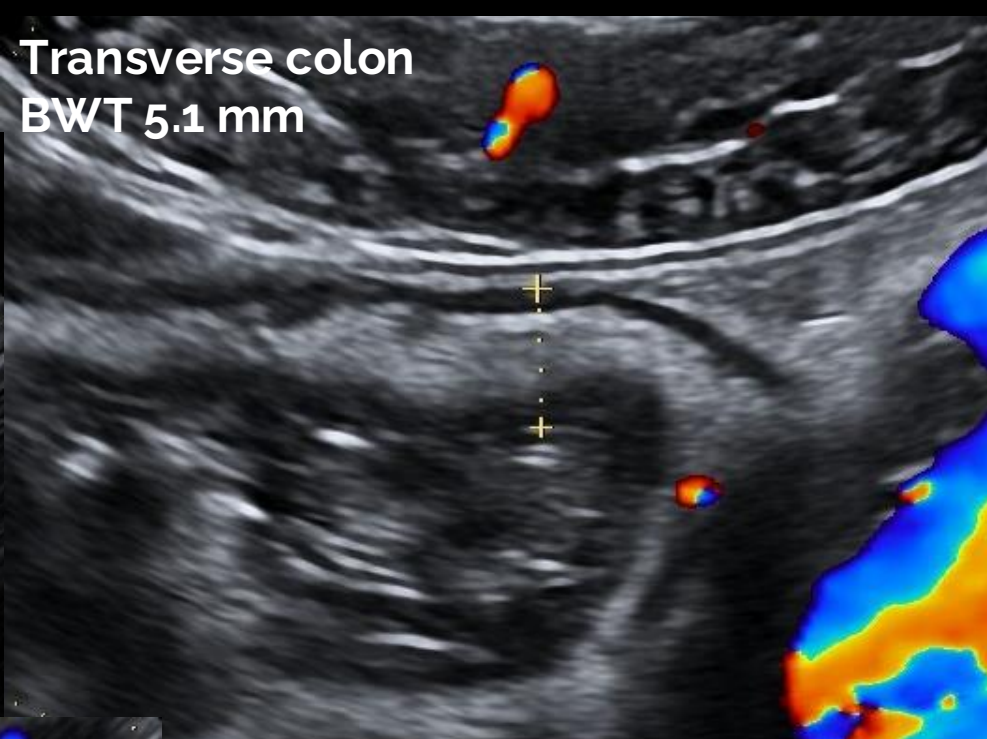
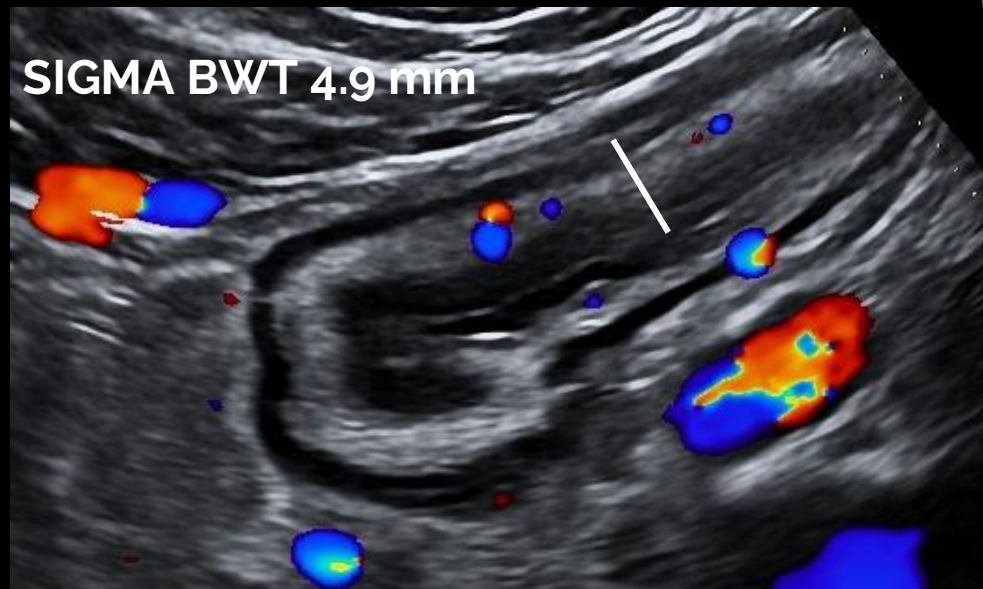
Investigations

- Full blood count –
- C-reactive protein –
- Stool cultures and *Clostridium difficile* toxin –
- Fecal calprotectin –

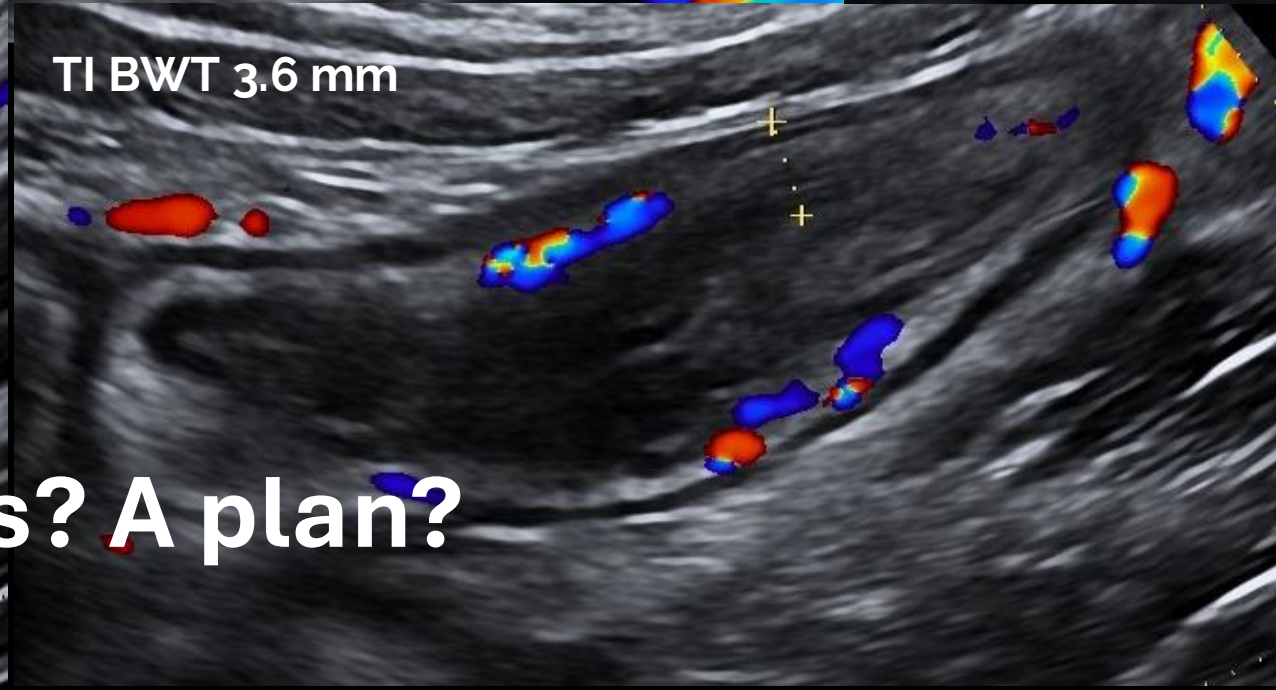
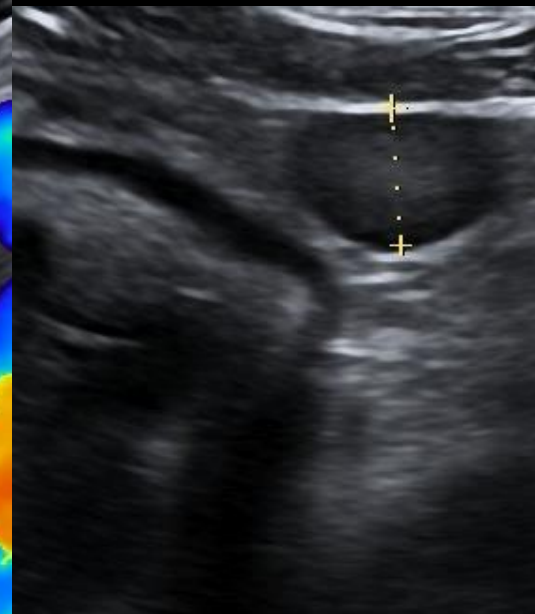
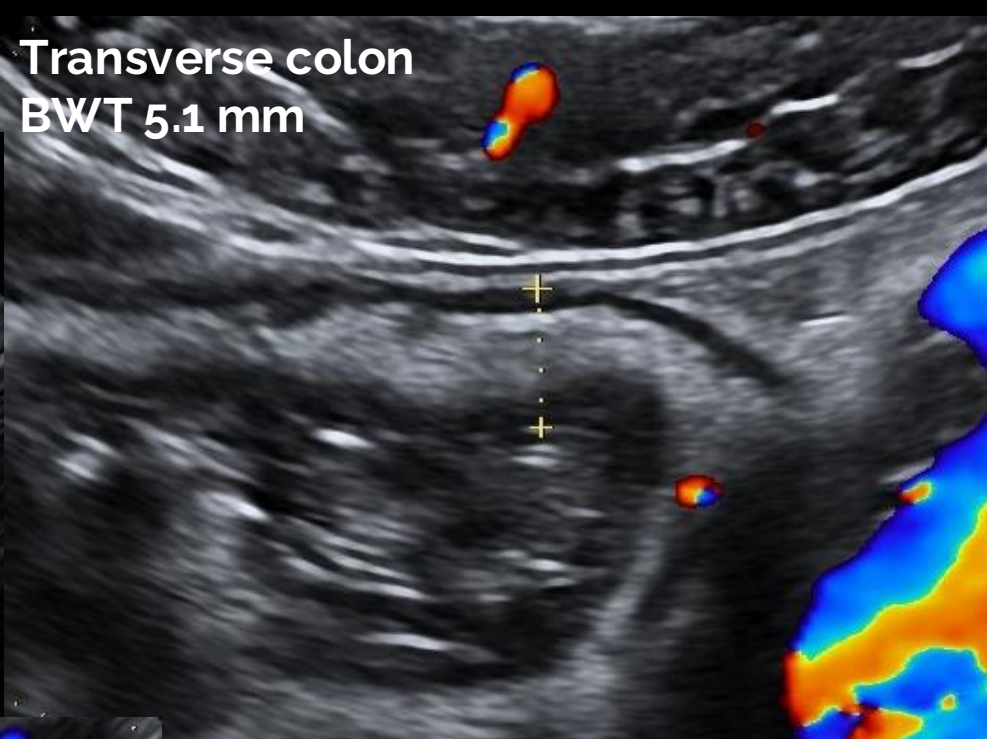
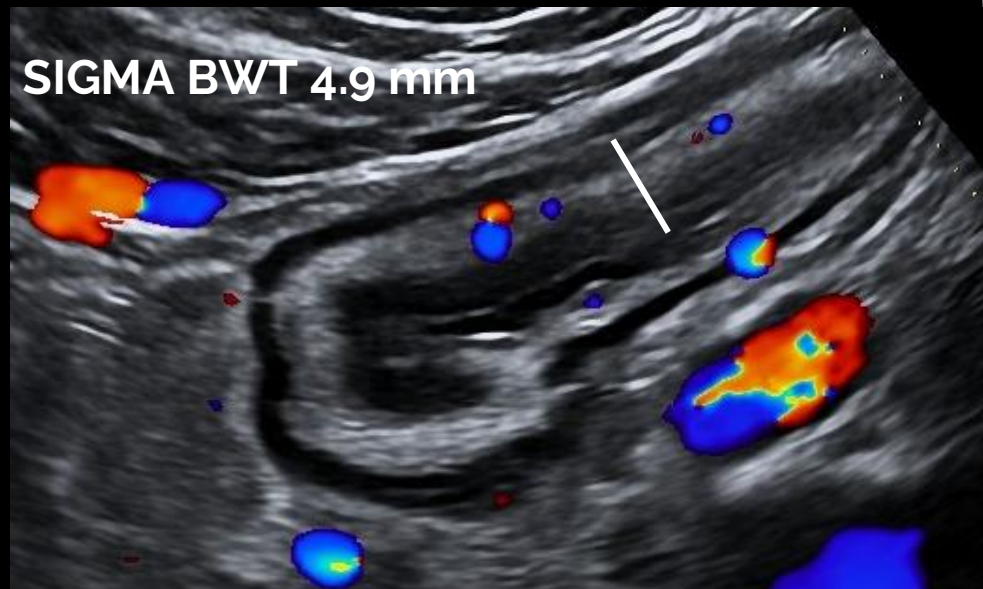
PENDING

- **Intestinal ultrasound (available now!)**

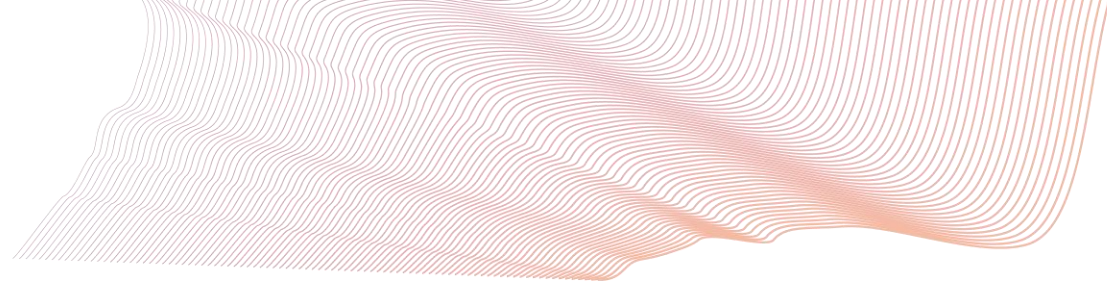
Intestinal ultrasound



Intestinal ultrasound



Do we have a diagnosis? A plan?
What do we do next?

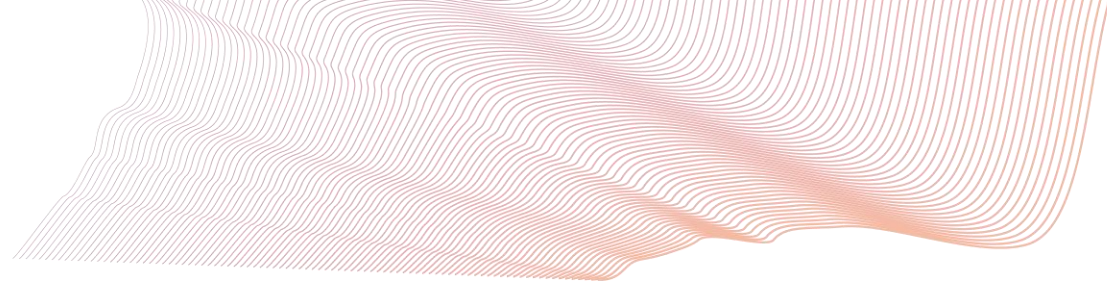


Investigations

- Full blood count – WBC 12000, Neutrophil 7500, Hb 15
- C-reactive protein – 110 mg/L
- Fecal calprotectin – 1160 mcg/g
- *Clostridium difficile* toxin – negative
- Stool cultures – **Campylobacter jejuni**

Treatment

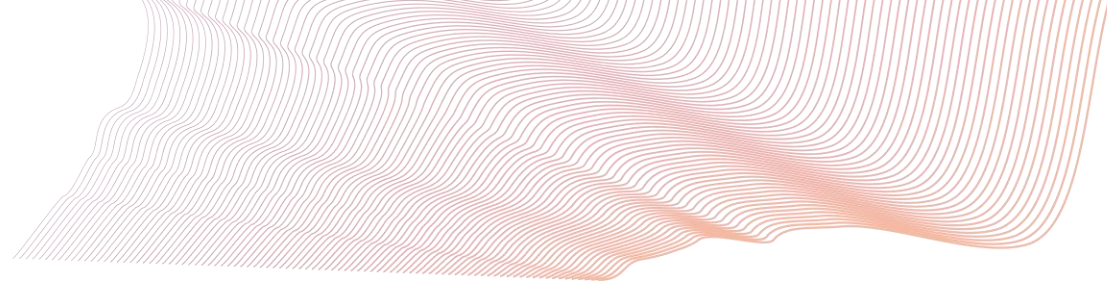
- Azithromycin 500 mg x3 days, improved
- Calprotectin, CRP, and intestinal ultrasound normal 1-month later



Silvia, 72 year-old female

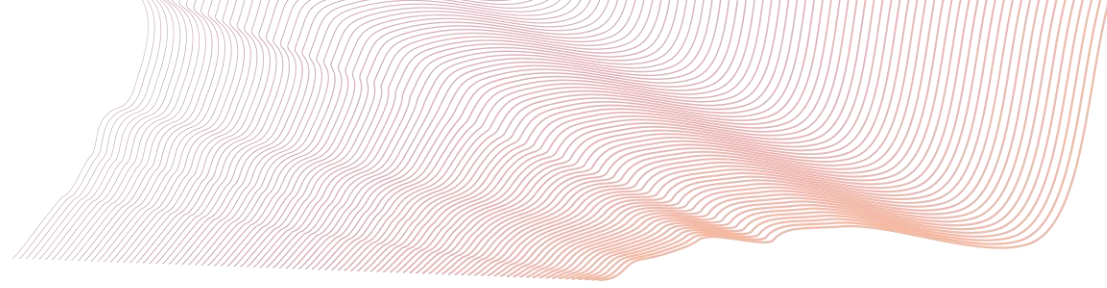
- o Smoker, 10 cigarettes a day
- o Hypercholesterolemia on statin therapy
- o Abdominal pain for 6 months
- o Positive occult blood

- o Colonoscopy: aborted at 28 cm due to inability to safely advance. Multiple diverticula with hyperemic and edematous mucosa
- o CT colonography: sigmoid diverticulosis



Treatment

- o Mesalamine 800 mg 3 capsules and cycles of rifaximin

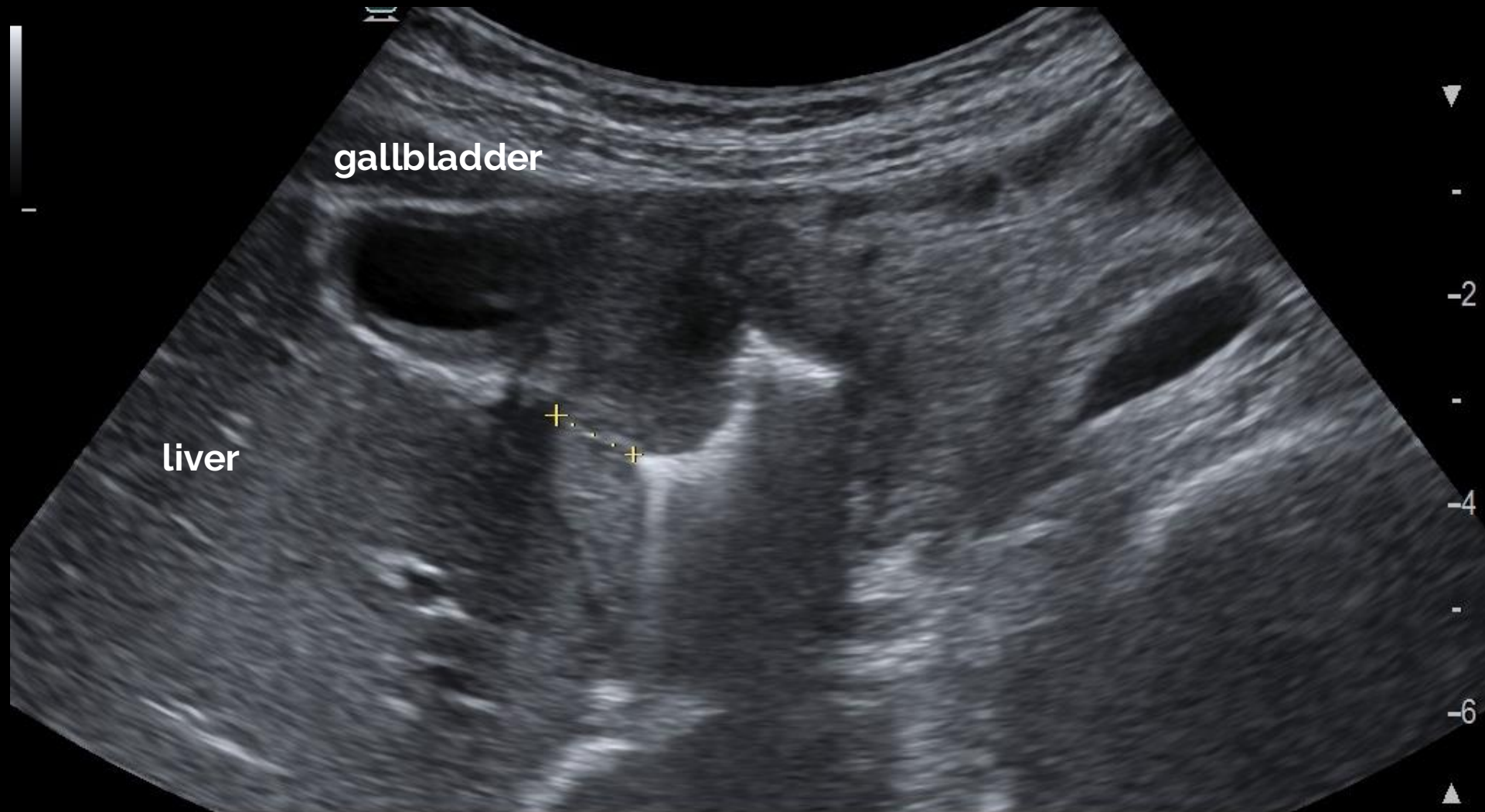


Treatment

- o Mesalamine 800 mg 3 capsules and cycles of rifaximin
- o Persistent abdominal pain and dyspepsia one month later
- o 1-2 stools/day without blood or mucus
- o Blood investigations: Hgb 11.5 g/dL, MCV 80, ferritin 30 mcg/L, CRP 5.8 mg/L, LFTs normal
- o Fecal calprotectin: 58 mcg/g



Intestinal ultrasound



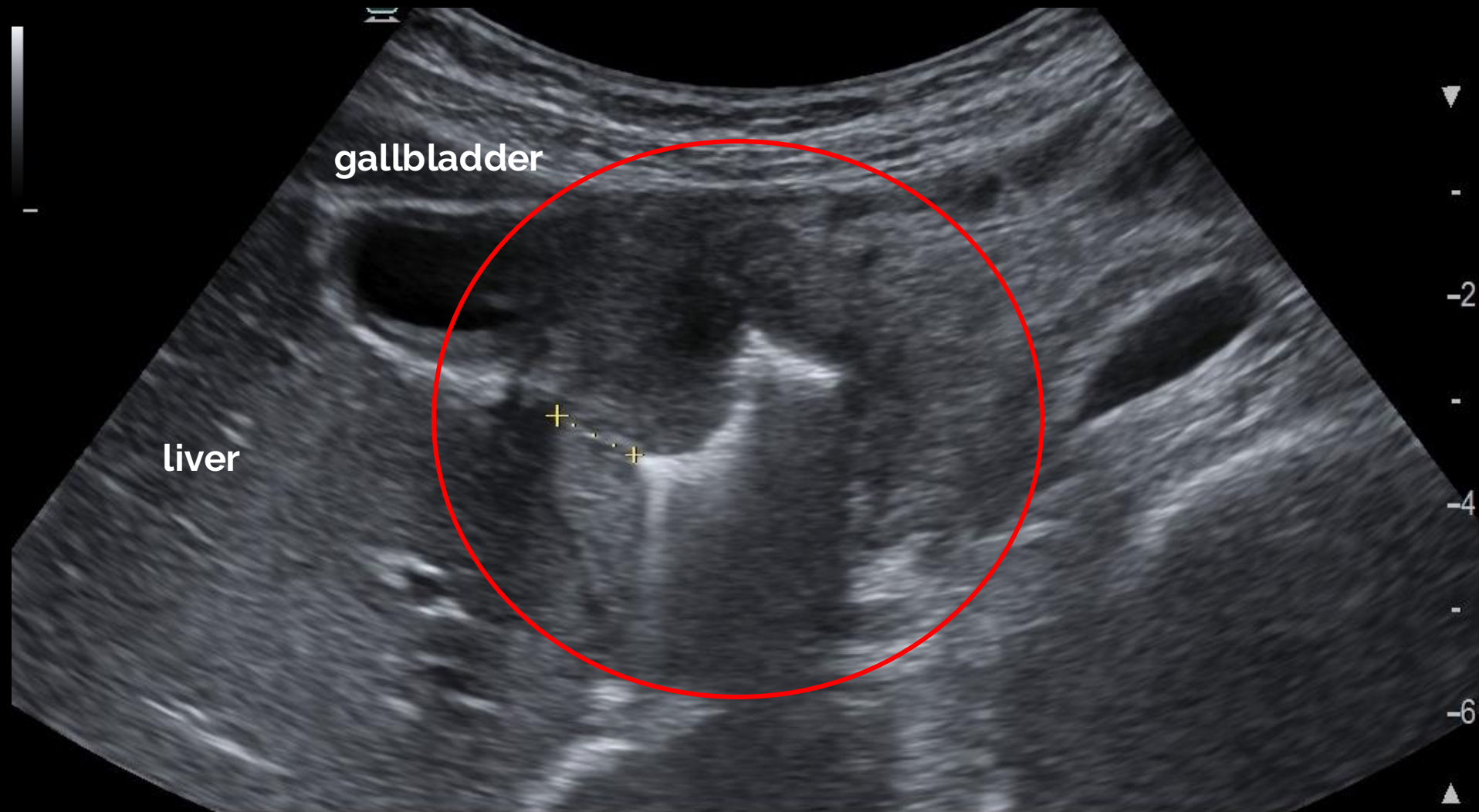
C252
HdT-5.9Rx

+Dist: 8.3mm
R:8.00 BG:70 BD:84

ADDOME 1.
928/929



Intestinal ultrasound

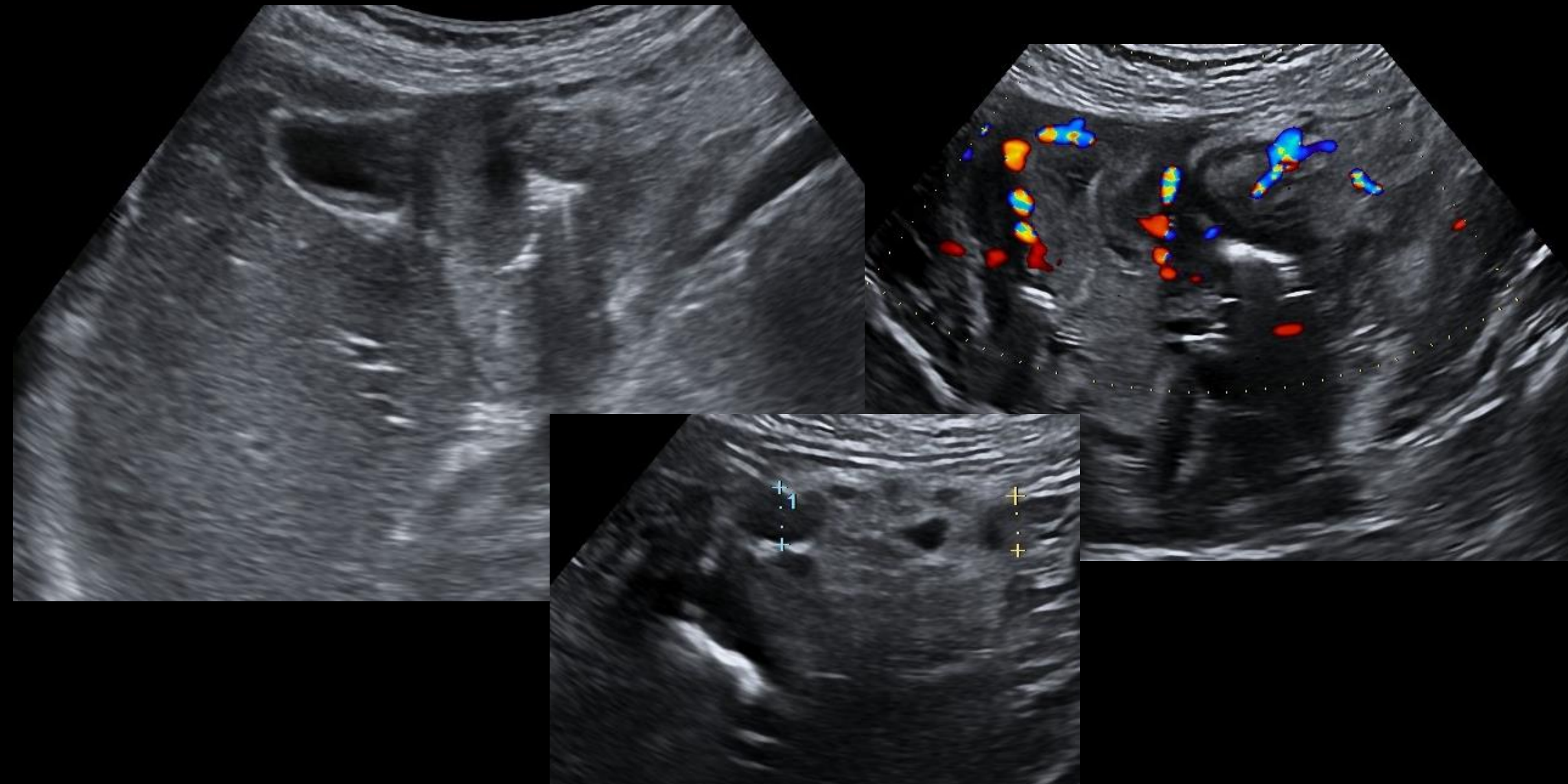


C252 +Dist: 8.3mm
HdT-5.9Rx R:8.00 BG:70 BD:84

ADDOME 1.
928/929



Intestinal ultrasound





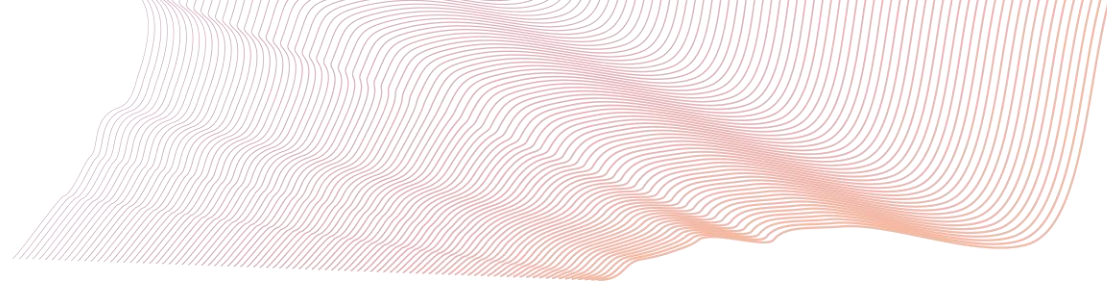
Intestinal ultrasound

TI BWT 1.2 mm



Sigma BWT 1.4 mm

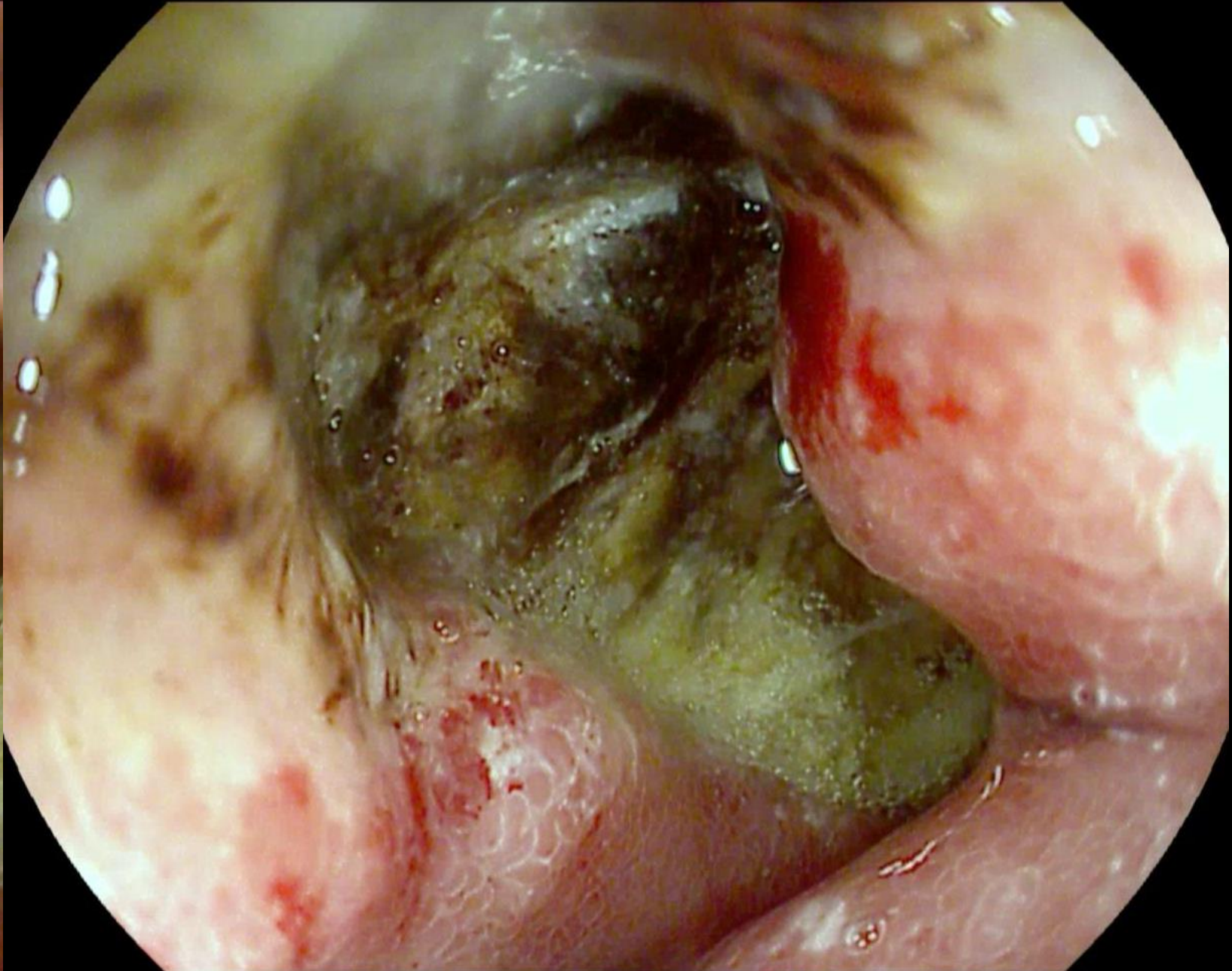
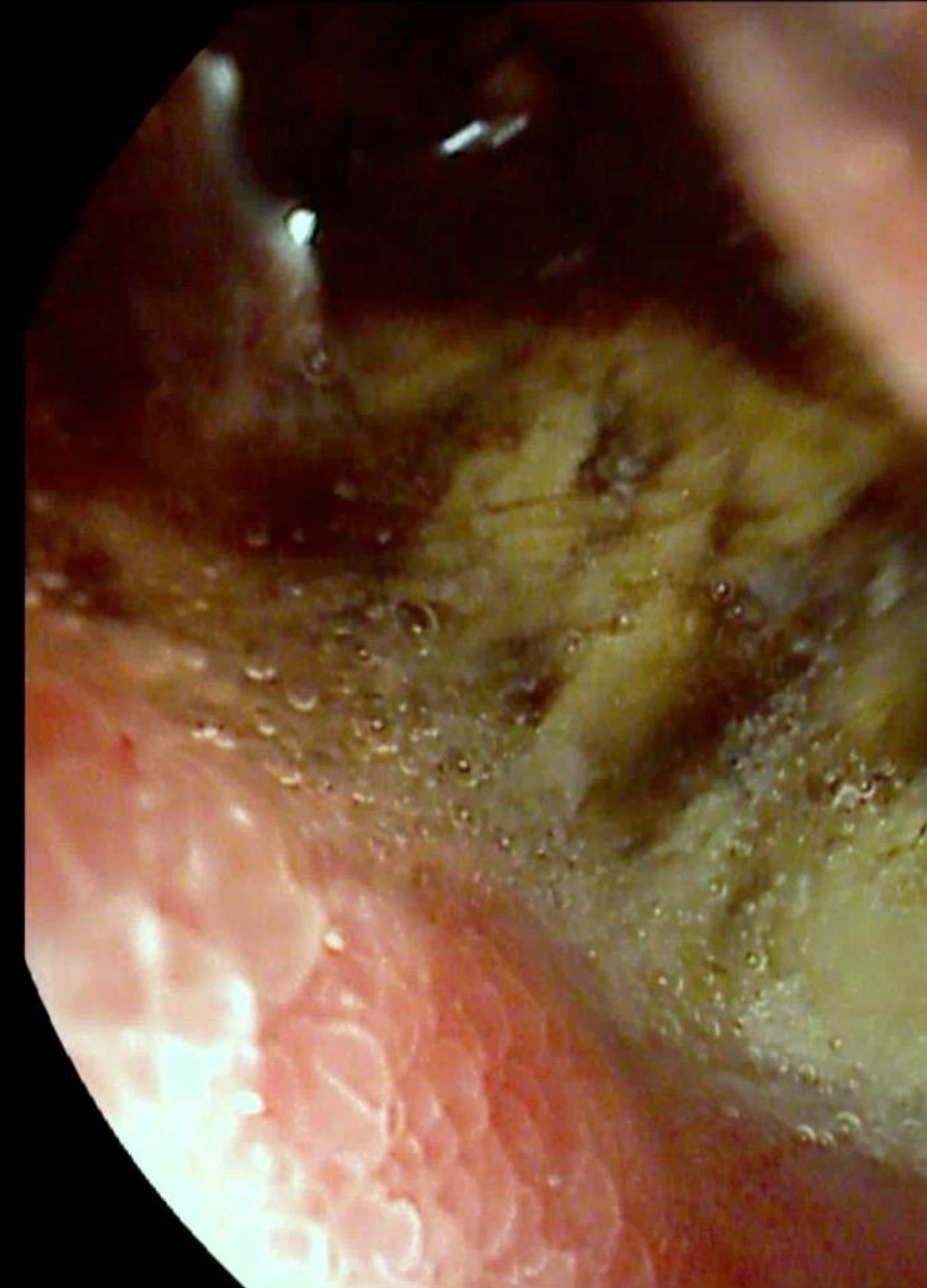




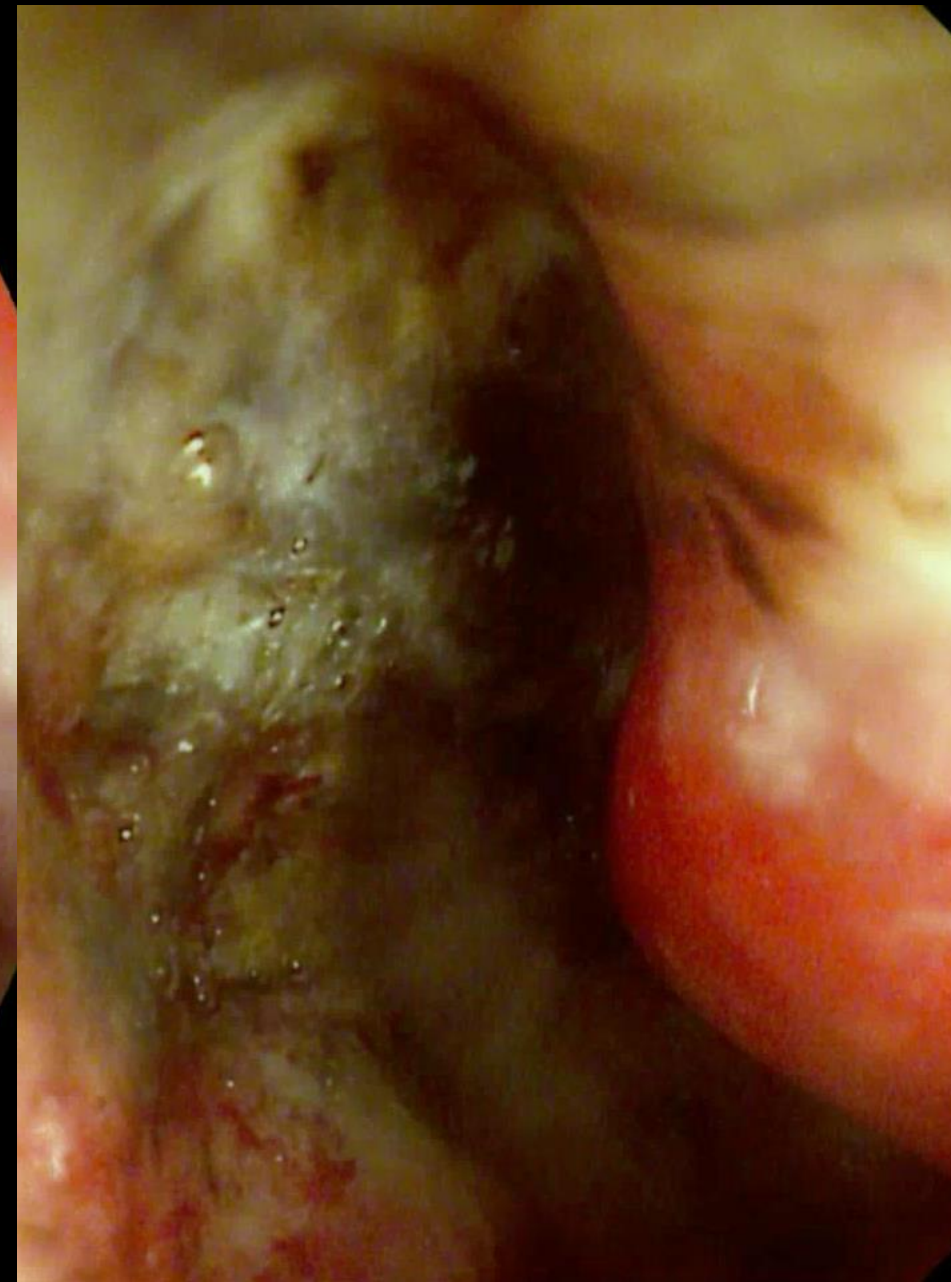
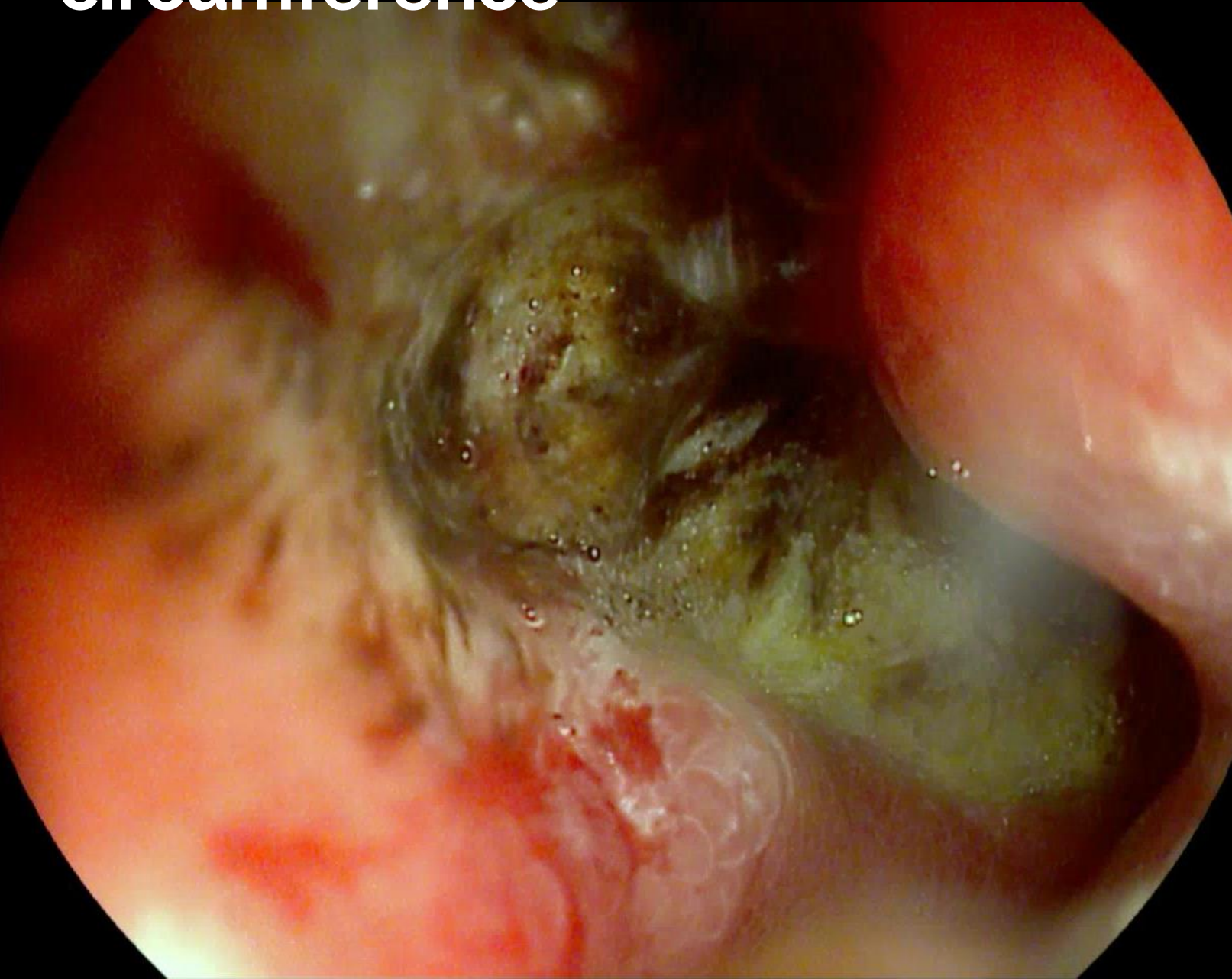
Silvia, 72 year-old female

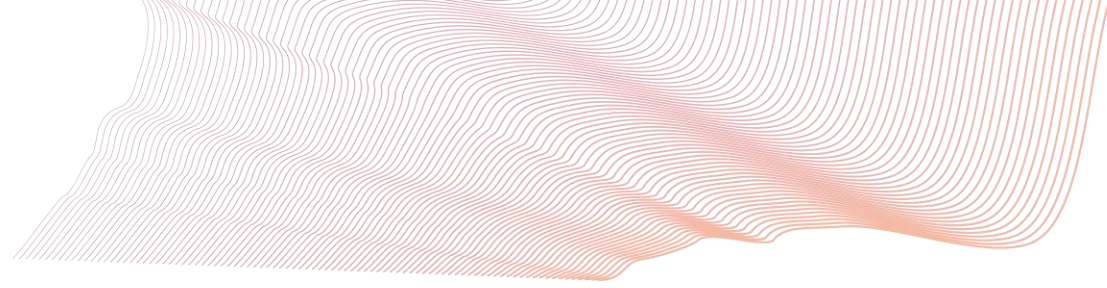
- What is your guess? Differential?

EGD: duodenal ulcer > 50% of the circumference



Gastroscopy: Duodenal ulcer > 50% of the circumference



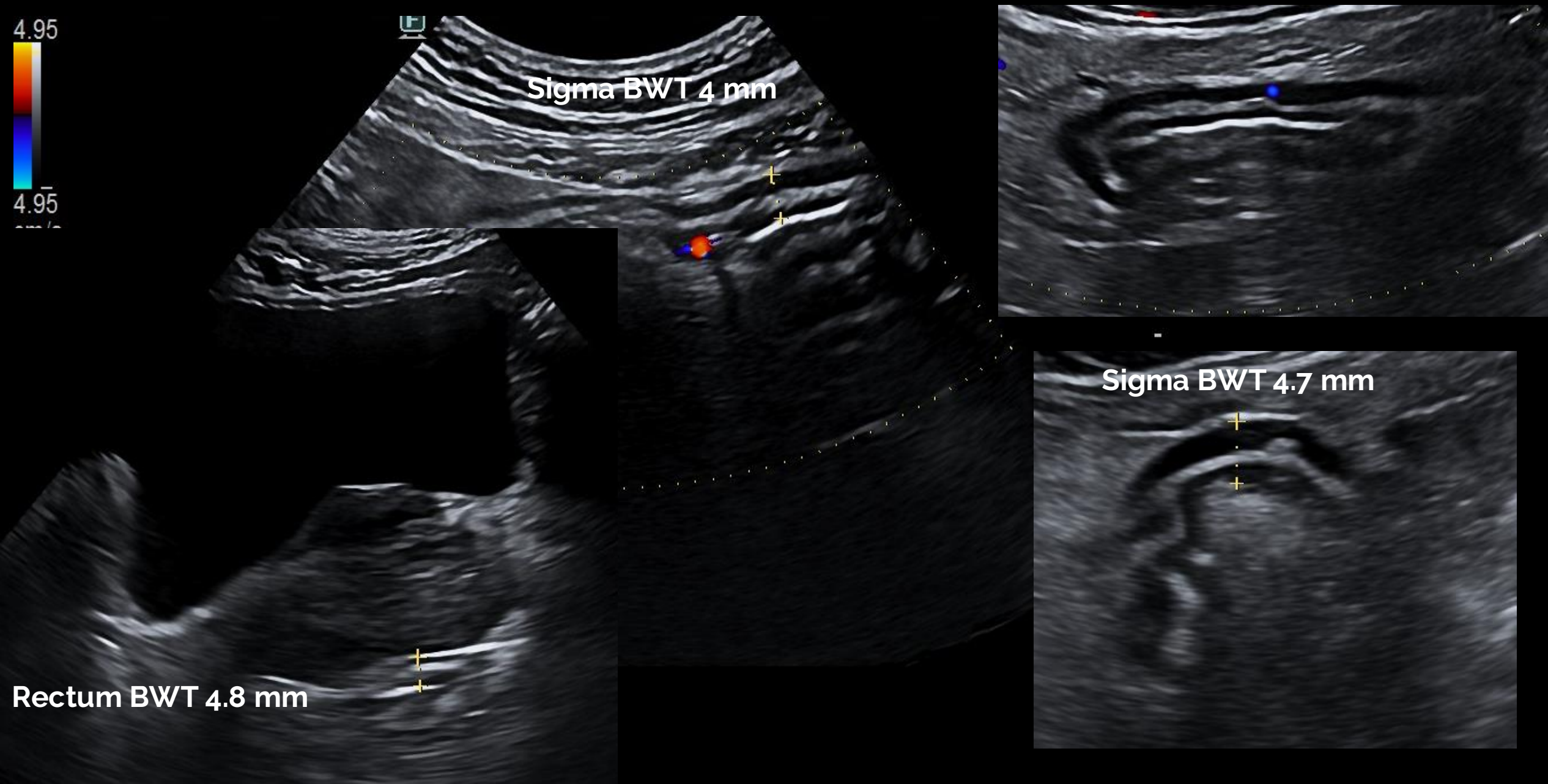


Giambattista, 54 year-old female

- First visit:
 - Ulcerative colitis diagnosed in 2006, treated with mesalamine
 - Flare for 1-month with 13-14 bloody bowel movements daily
 - Abdominal pain, urgency, weight loss of 2 kg
 - CRP 23.2 mg/L, fecal calprotectin 1175
 - Taking mesalamine 4 grams daily and 2 g mesalamine enema

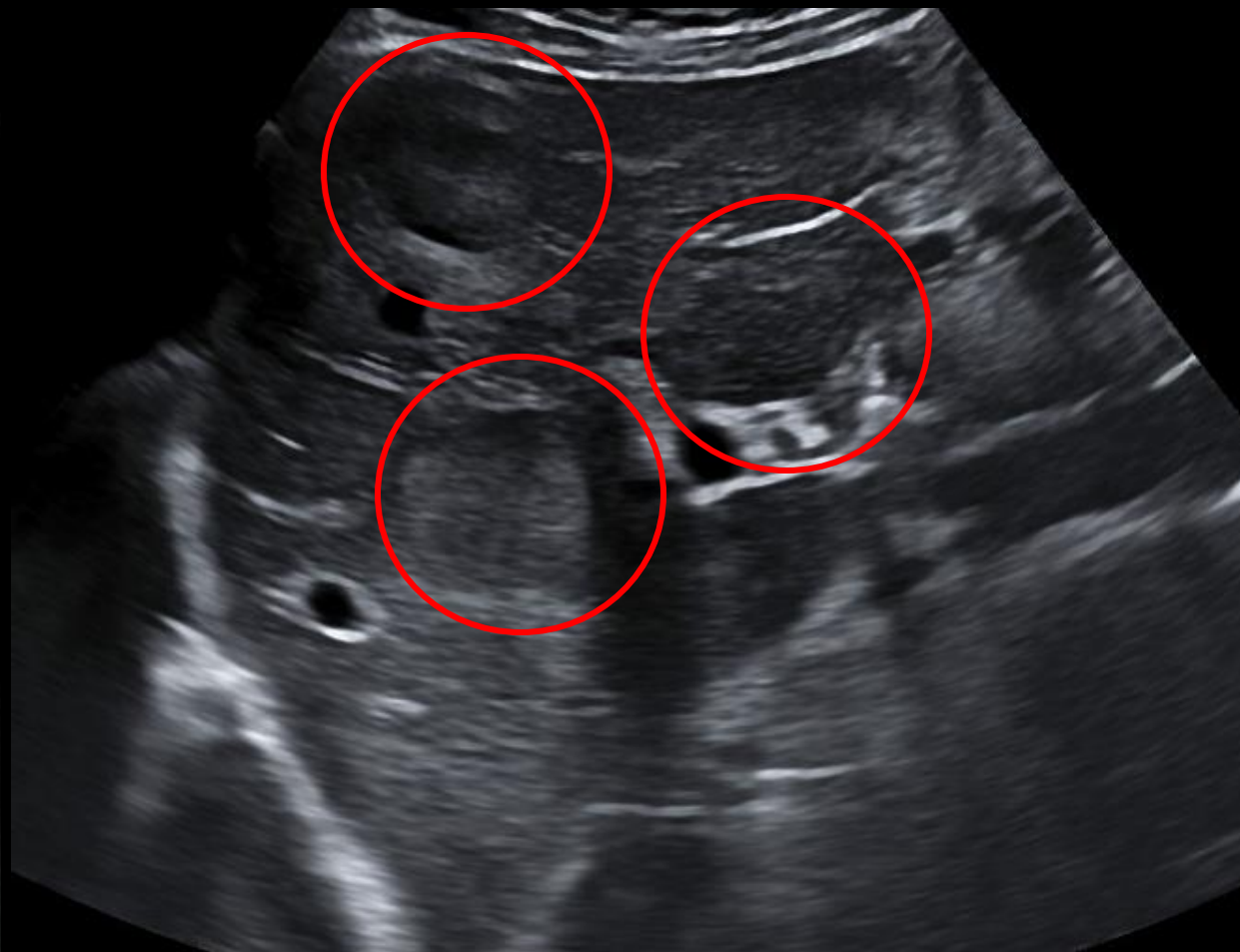


Intestinal ultrasound





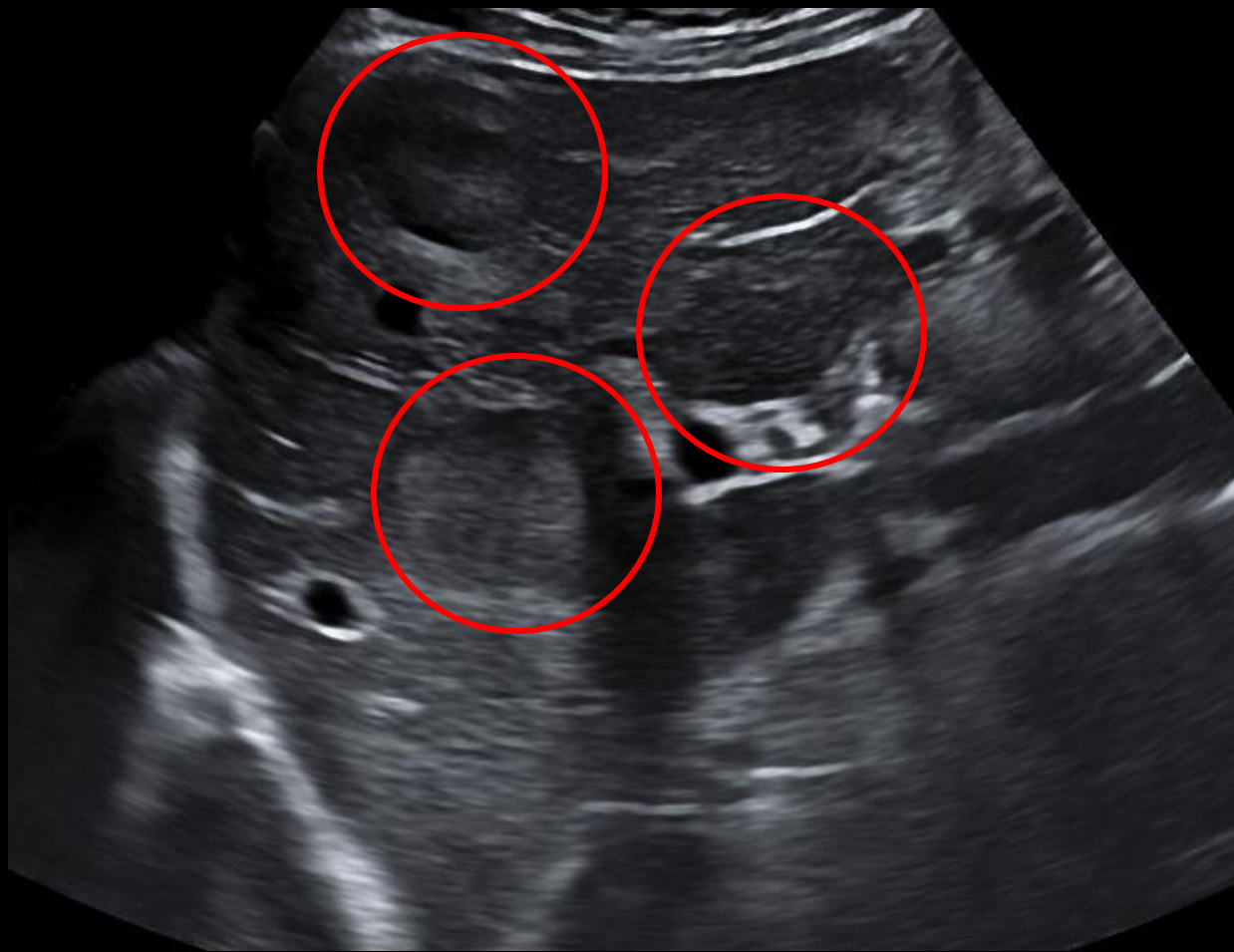
Intestinal ultrasound



Dist: 25.1mm



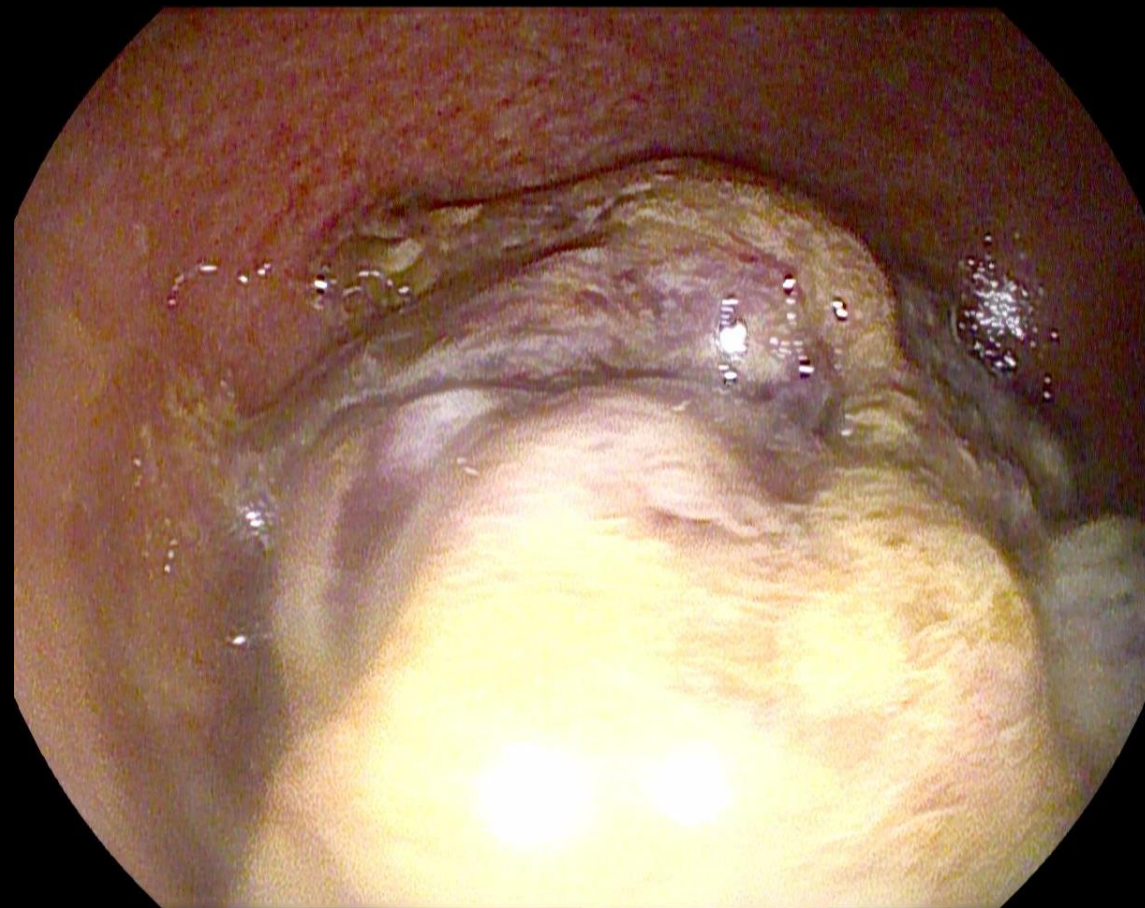
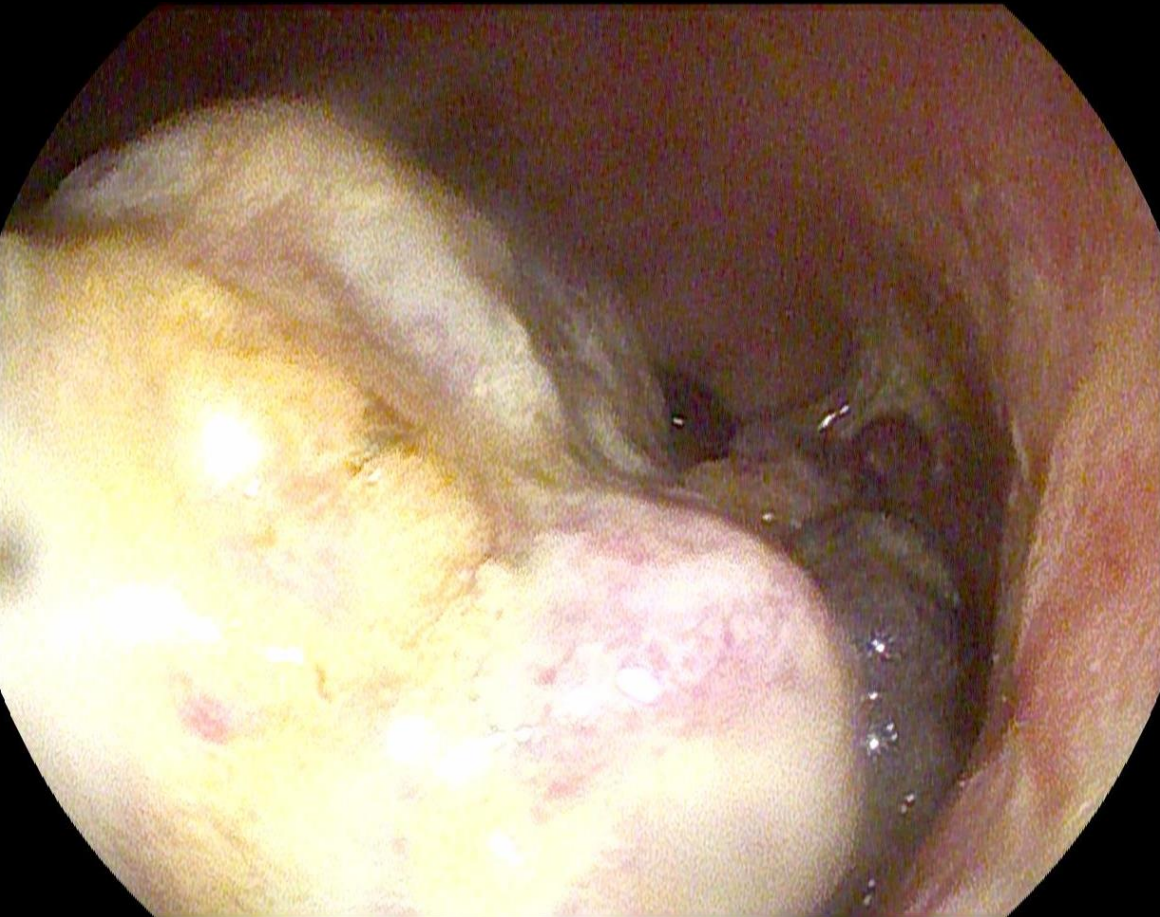
Intestinal ultrasound

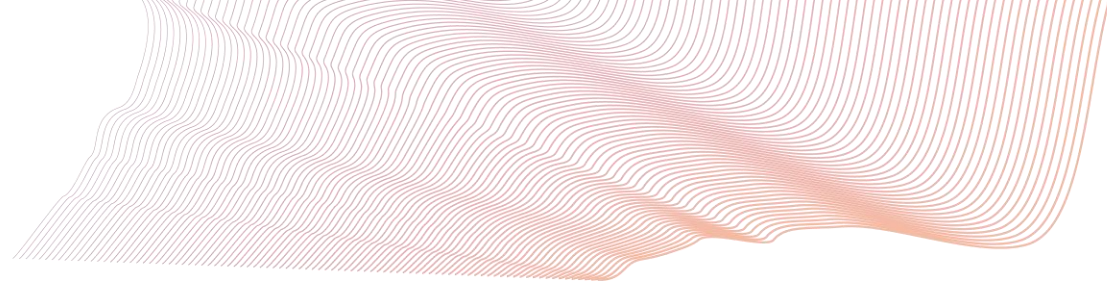


CT scan confirmed liver metastasis



Colonoscopy: rectal mass





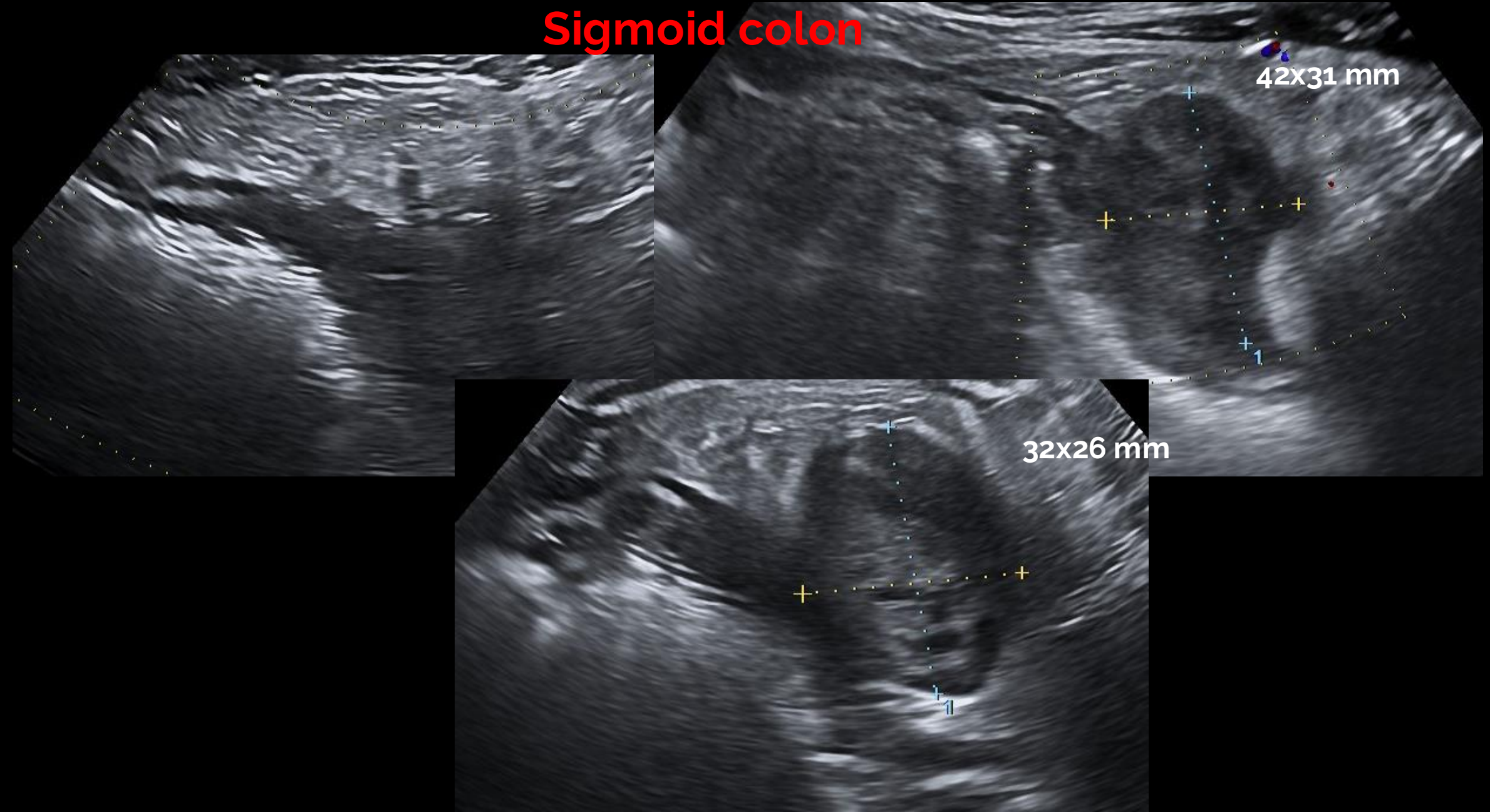
Enrico, 56 year-old male

- First visit:
 - Long-standing ulcerative colitis, since age 18
 - Treated with mesalamine for five years after diagnosis, then stopped all medications
 - Last colonoscopy 30 years ago
 - Abdominal pain in left flank for a week



Point-of-care intestinal ultrasound

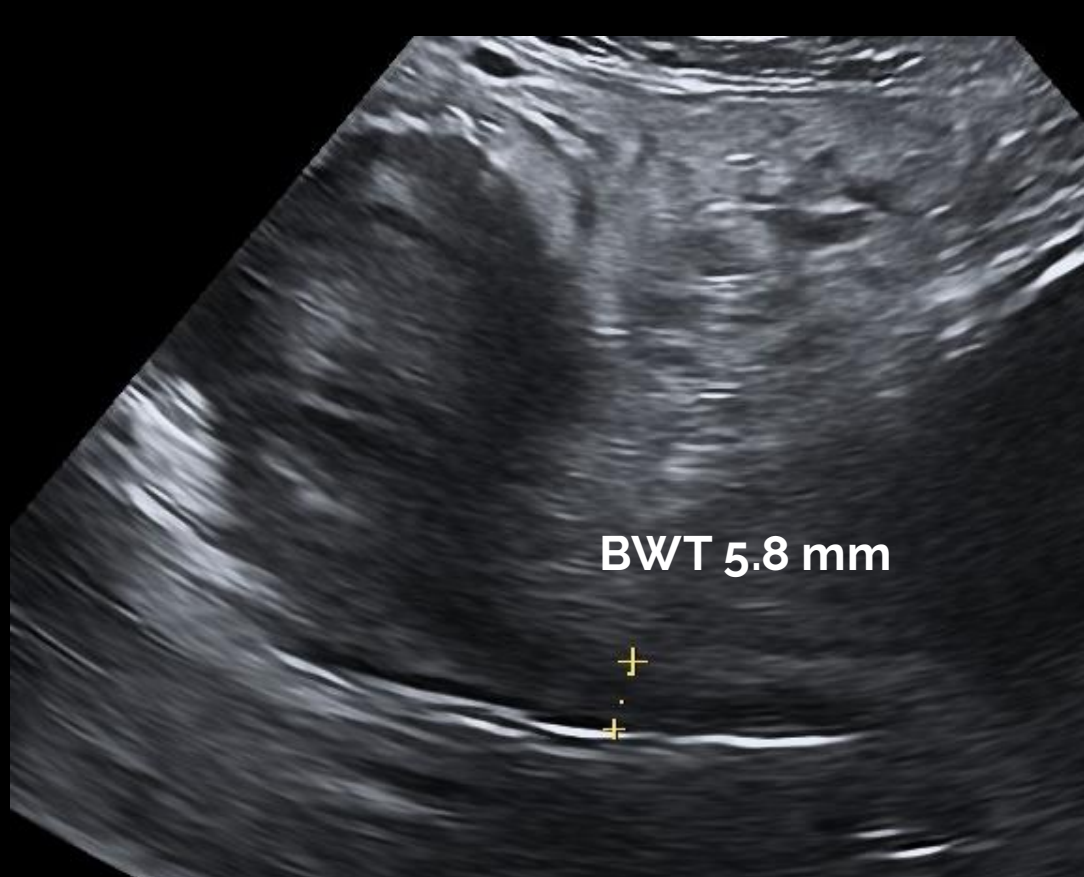
Sigmoid colon





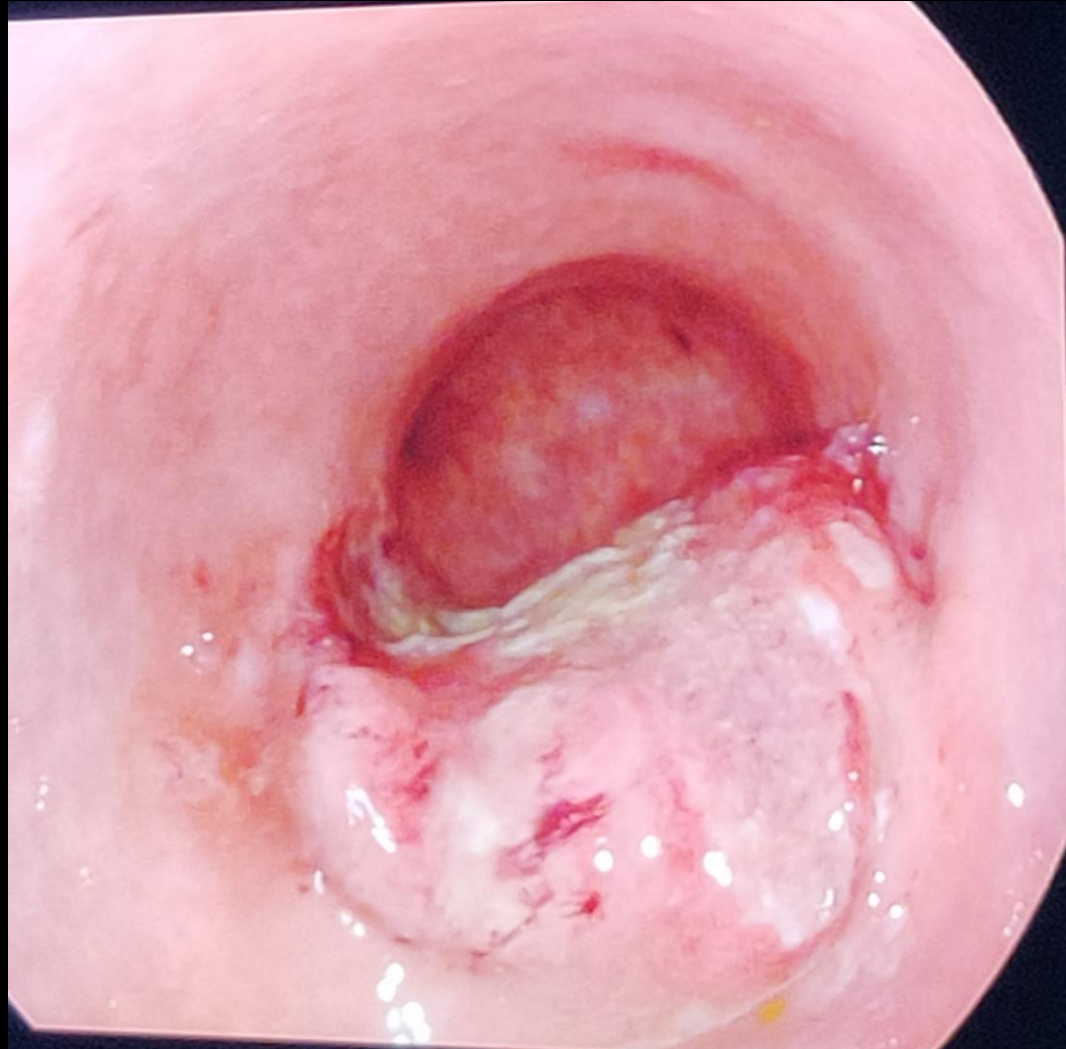
Point-of-care intestinal ultrasound

Sigmoid colon





Colonoscopy: cancer of sigmoid colon



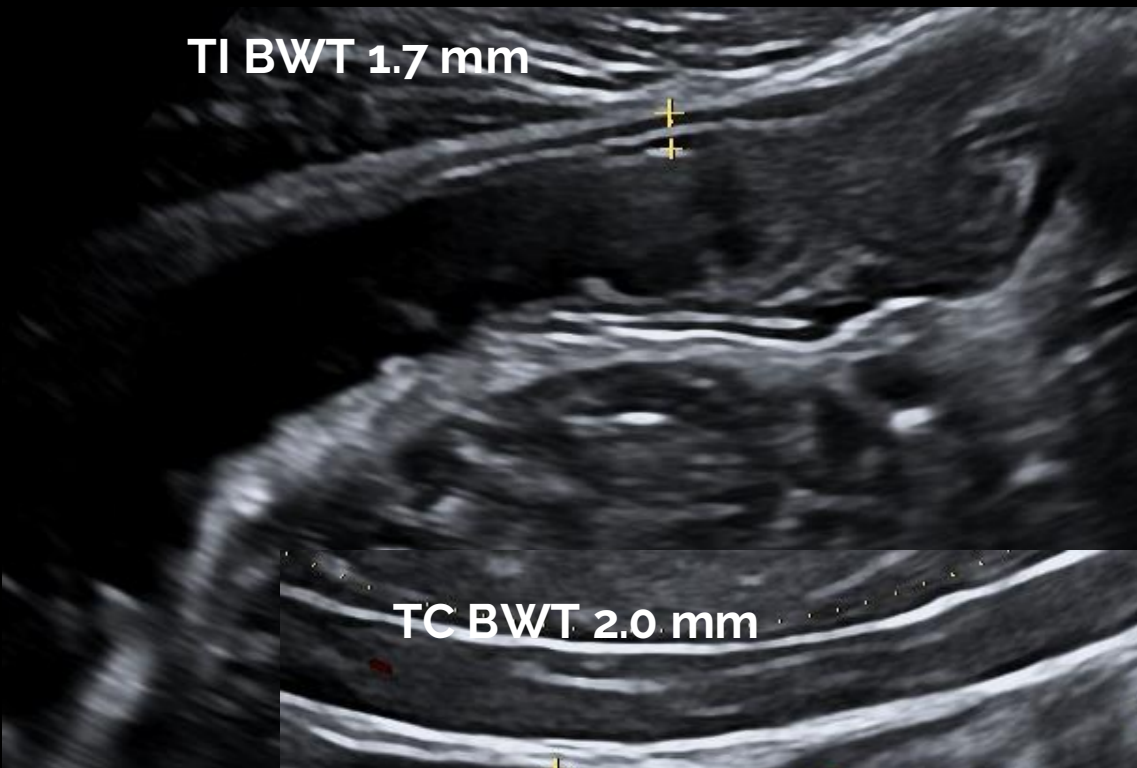
Salem, 42 year-old male

- First visit:
 - Watery diarrhea for three months, 20 stools per day, no blood
 - Stool cultures and Clostridium difficile toxin negative
 - Colonoscopy with diagnosis of microscopic lymphocytic colitis.
 - No response to budesonide
- Labs:
 - Hgb 10.3 g/dL, MCV 87, WBC 4000, PLT 101000
 - K 3.05 mmol/L
 - CRP normal
 - Celiac disease and thyroid serologies normal

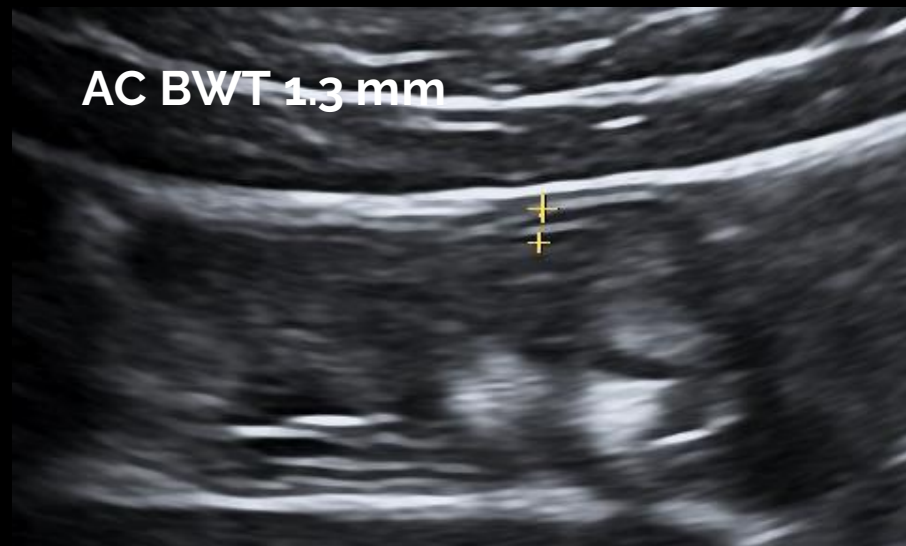


Point-of-care intestinal ultrasound

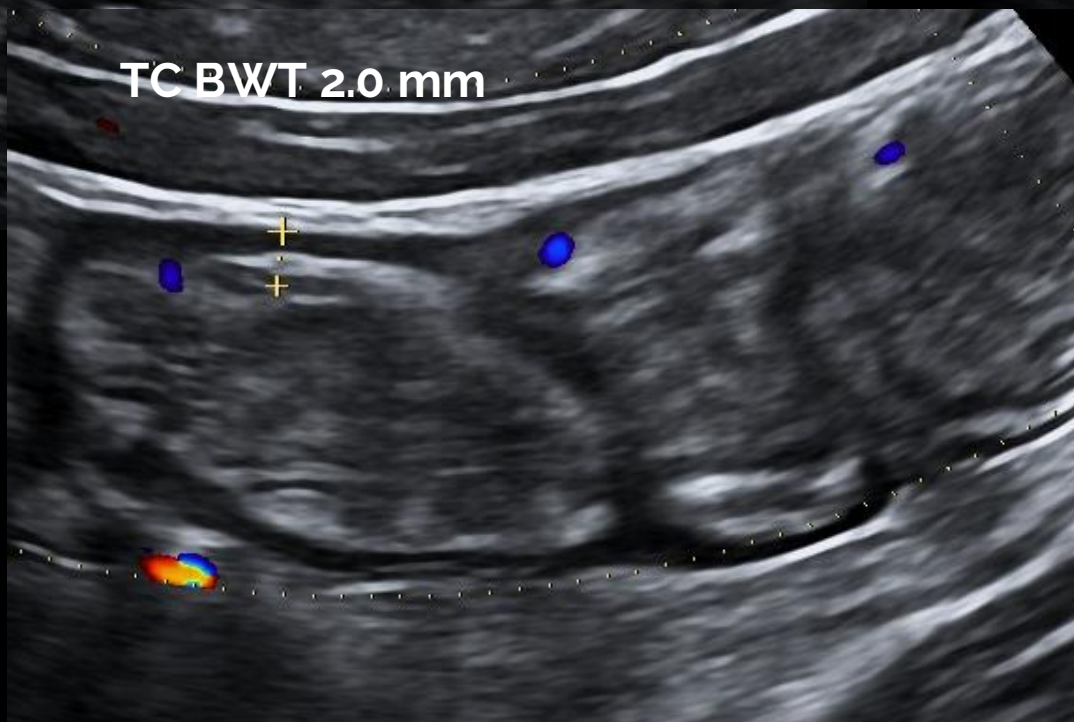
TI BWT 1.7 mm



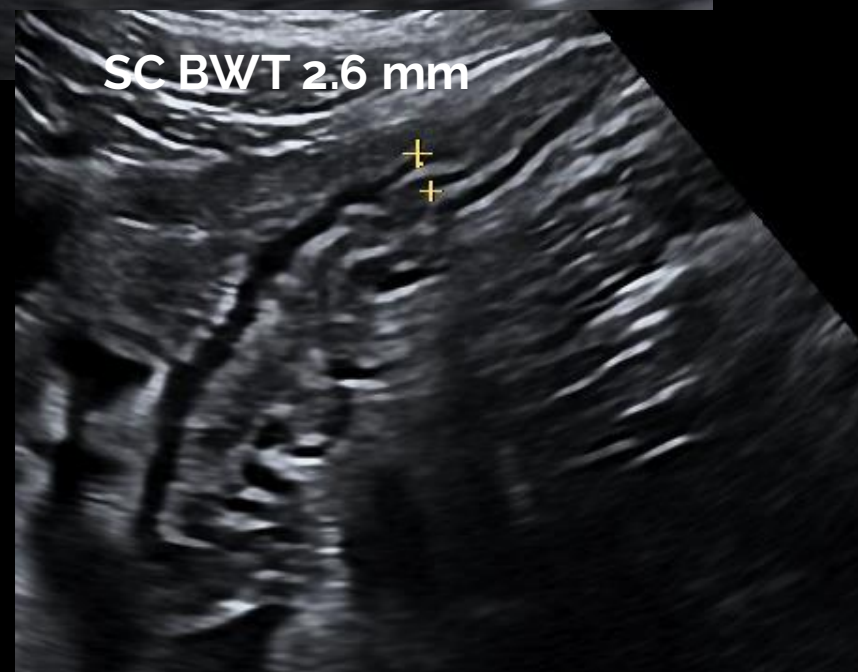
AC BWT 1.3 mm

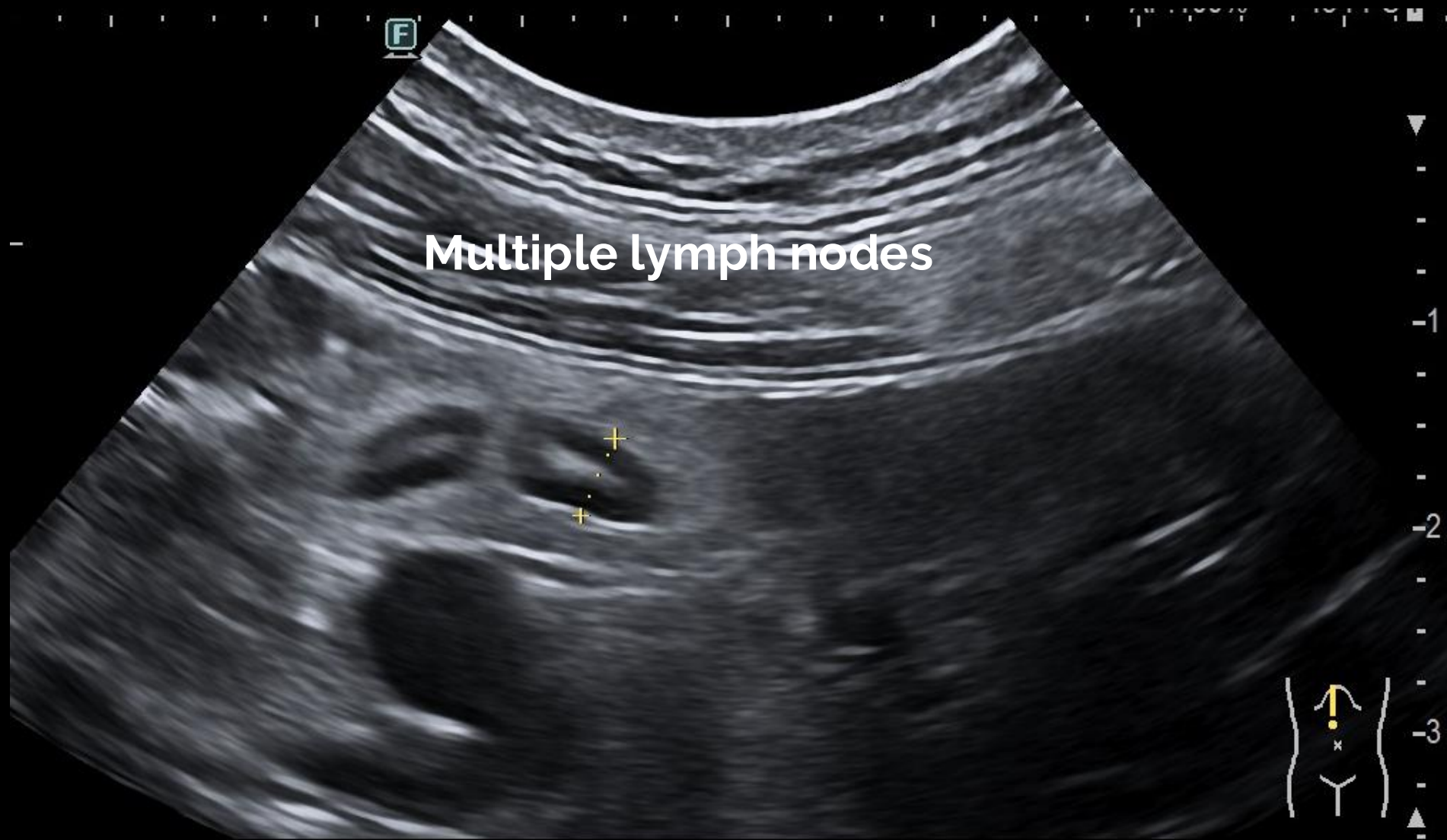


TC BWT 2.0 mm



SC BWT 2.6 mm

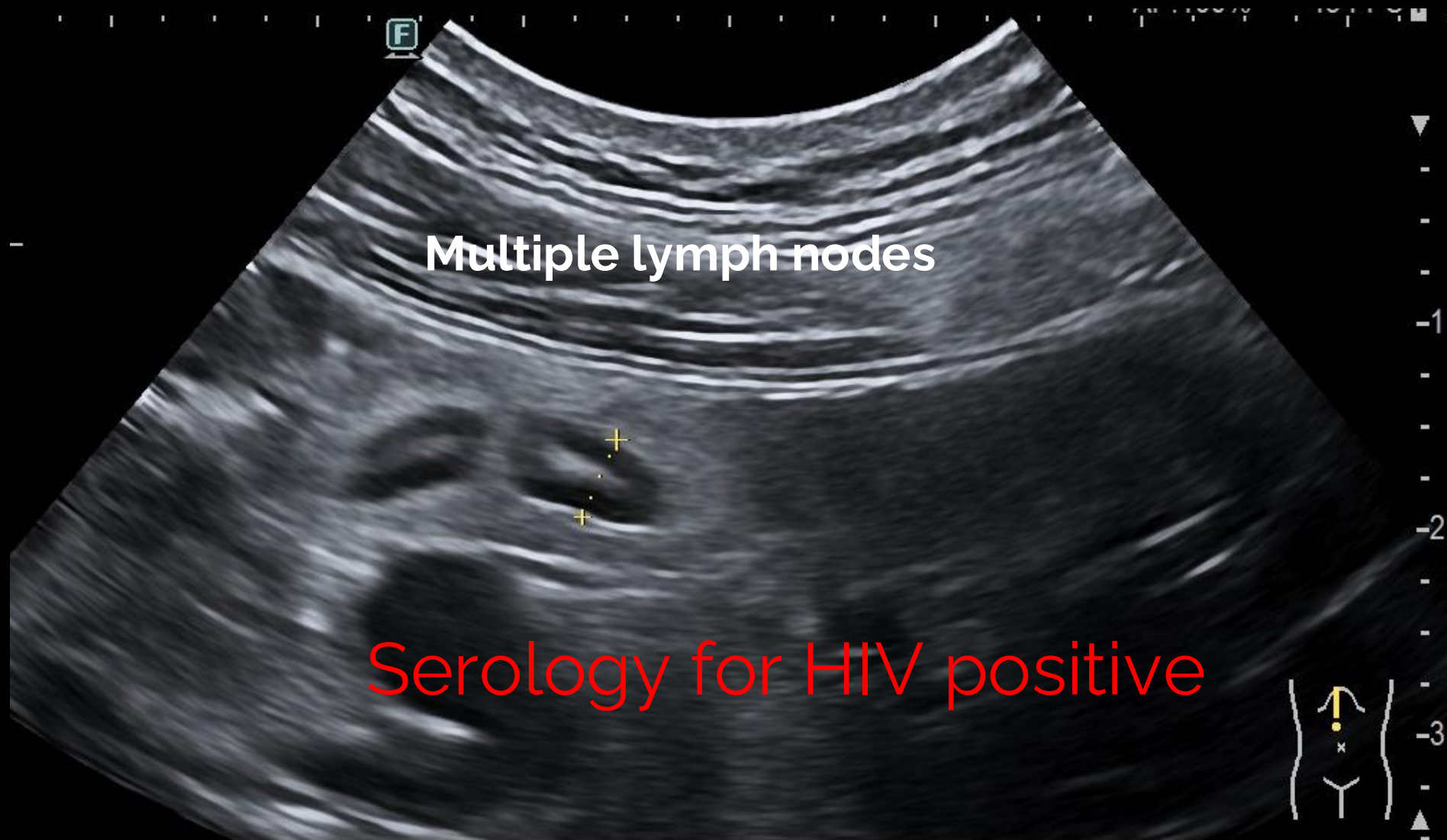




C42

+Dist: 4.1mm

ANSE Micro.

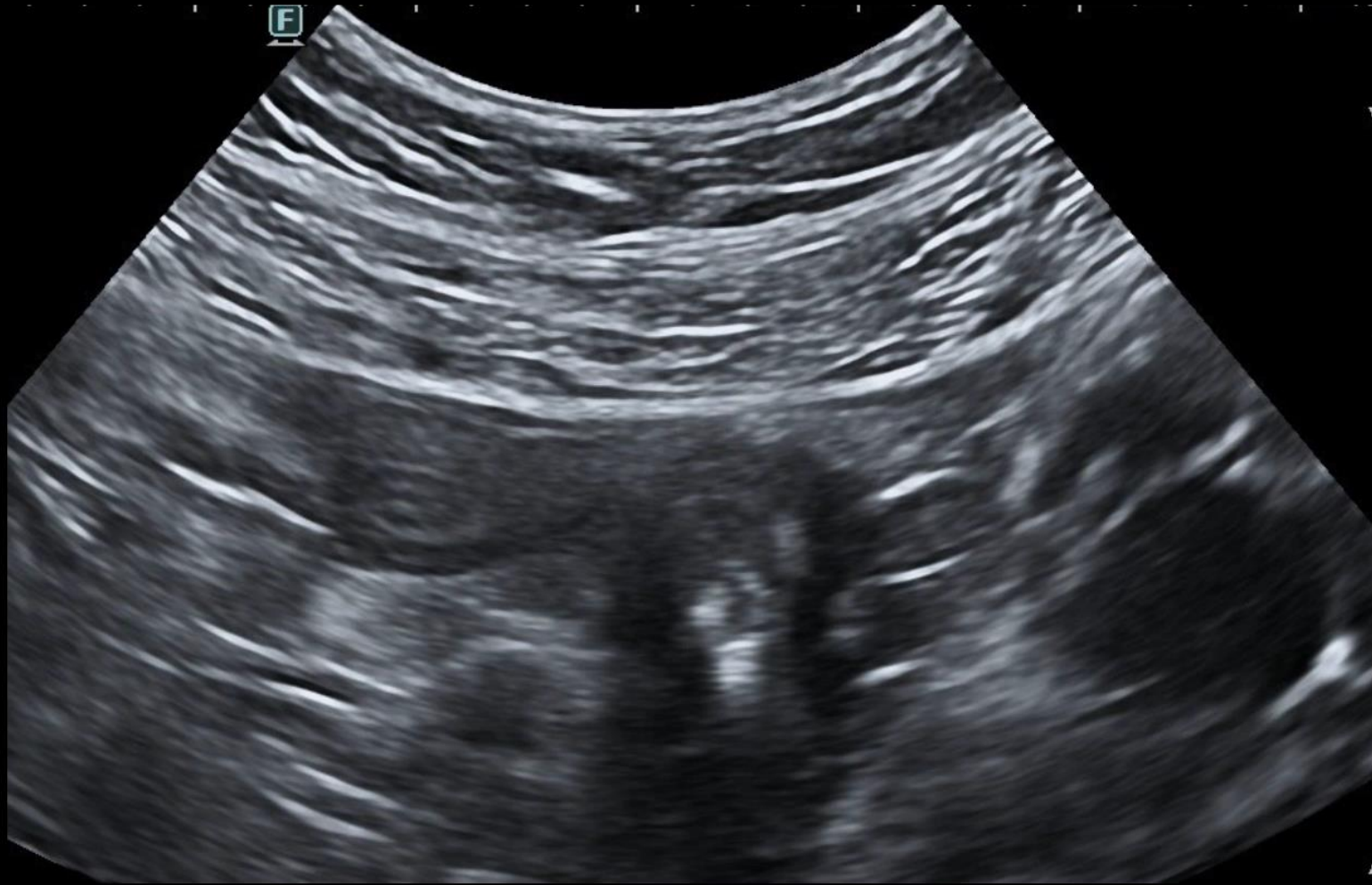


C42

+Dist: 4.1mm

ANSE Micro.

Last but not least: Diverticulosis





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Thank you!