



international bowel  
**ULTRASOUND GROUP**

# **Interactive Case Presentation: Detecting Complications in CD**

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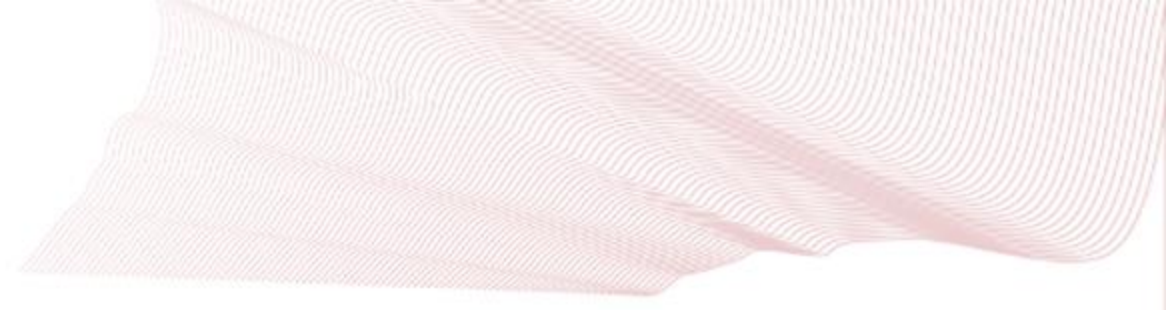
University of Chicago, USA

IBUS Advanced Ultrasound Workshop – Module 3  
DDW, San Diego, US, May 5<sup>th</sup>, 2025



# Disclosure

- Consultant for NeuroLogica (a subsidiary of Samsung Electronics), and Johnson & Johnson
- Speaker for Bristol Myers Squibb



- 75-year-old man with fibro-stenotic ileal Crohn's disease on risankizumab q8wks



## Risankizumab – Week 8

**HBI = 0**

Pediatric / IBD Abd / CA3-10A / FPS43 / 7.0cm / MI1.4 / TIs0.5  
[2D] Frq Gen./GN 43/DR 49/FA 7/P 100





**Risankizumab – Week 8**

**HBI = 0**

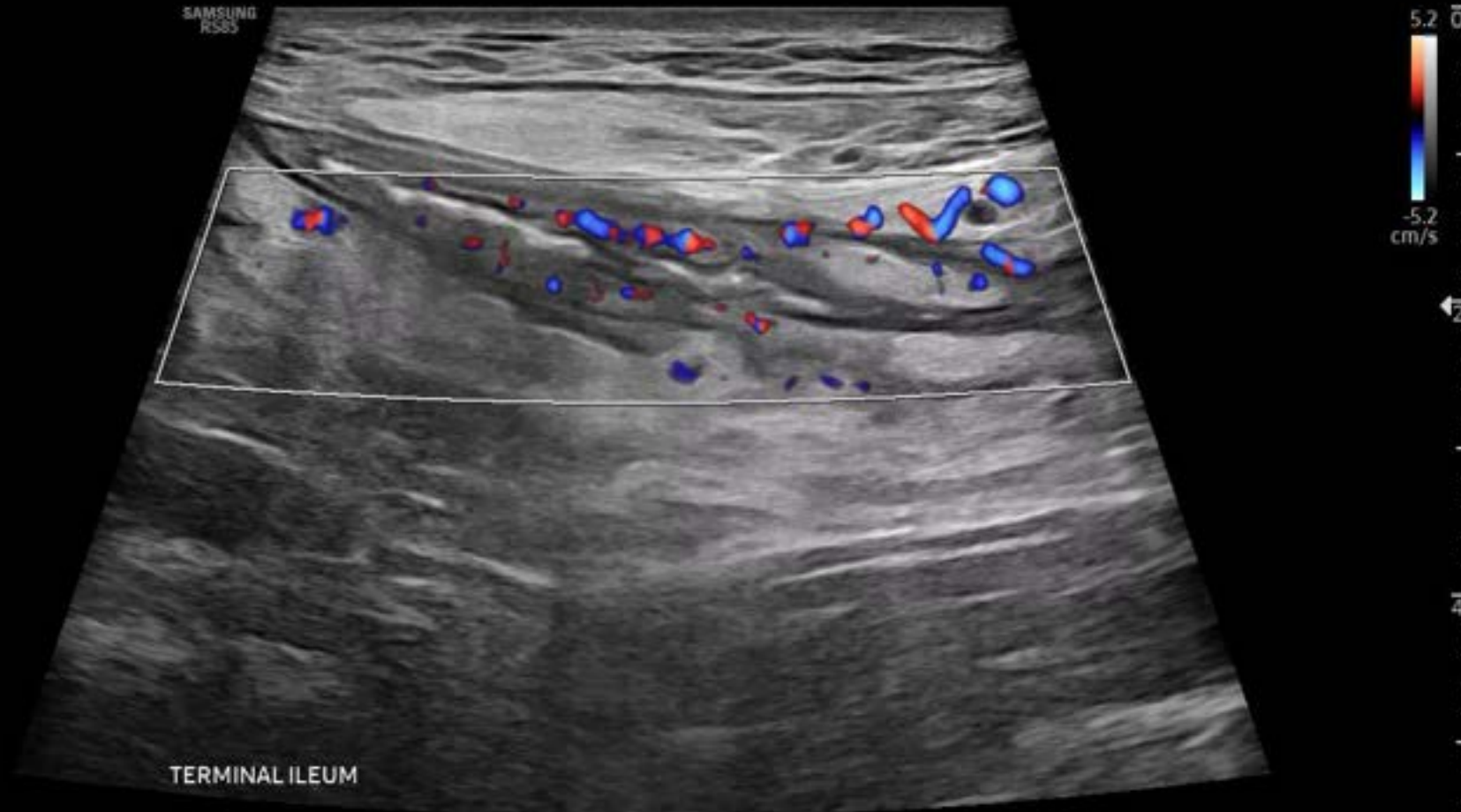
**IUS with long TI stricture with bowel wall thickening and proximal dilation**







Musculoskeletal / MV Bowel / LA2-14A / FPS8 / 5.5cm / MI1.3 / TIs0.5  
[2D] Frq Gen./GN 61/DR 45/FA 0/ P 100  
[PD] Frq Gen./GN 51/0.74kHz/ P 100



**What is the mLimberg score?**

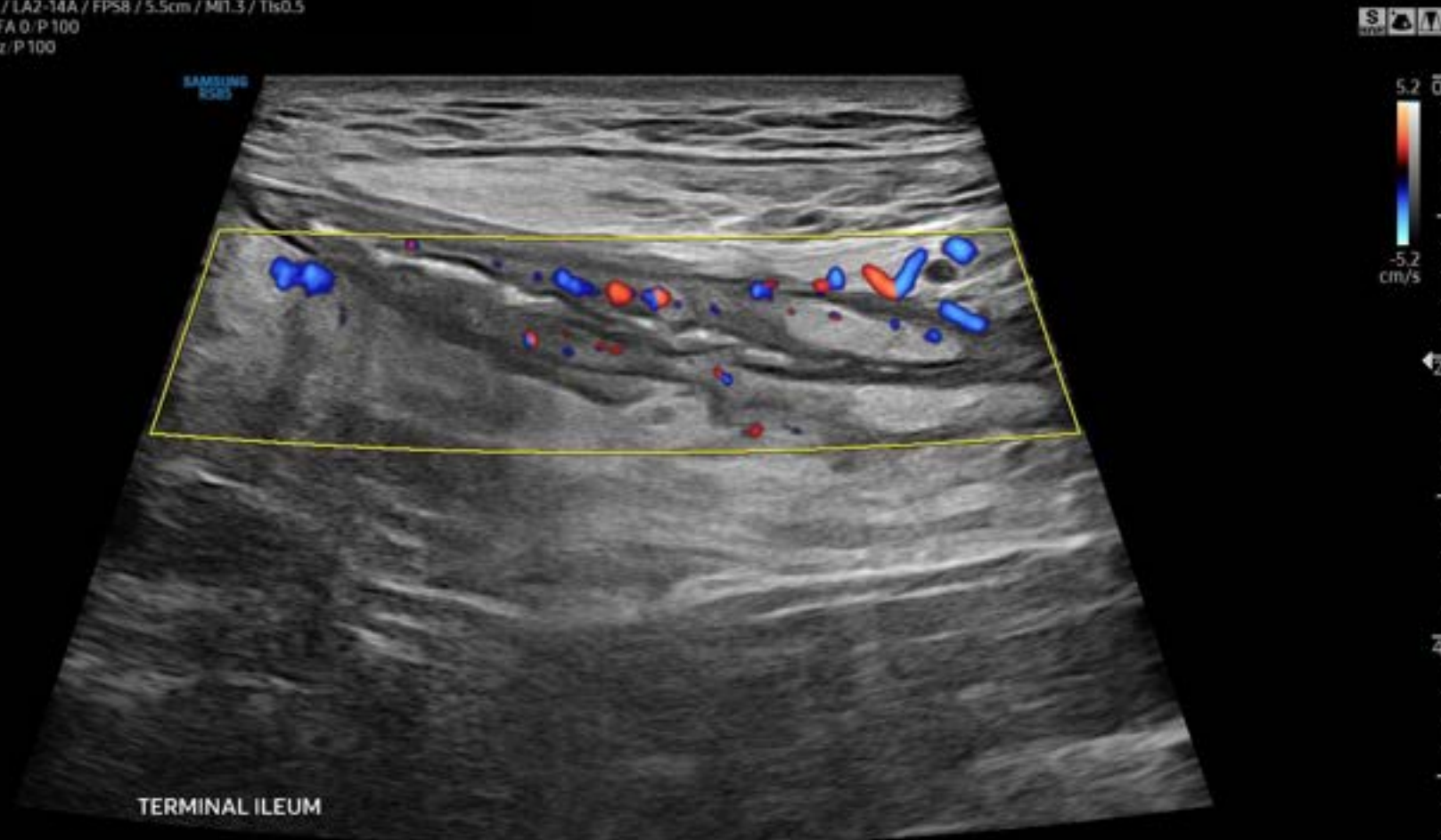


**Risankizumab – Week 8**

**HBI = 0**

**IUS with long TI stricture with bowel wall thickening, proximal dilation, and hyperemia**

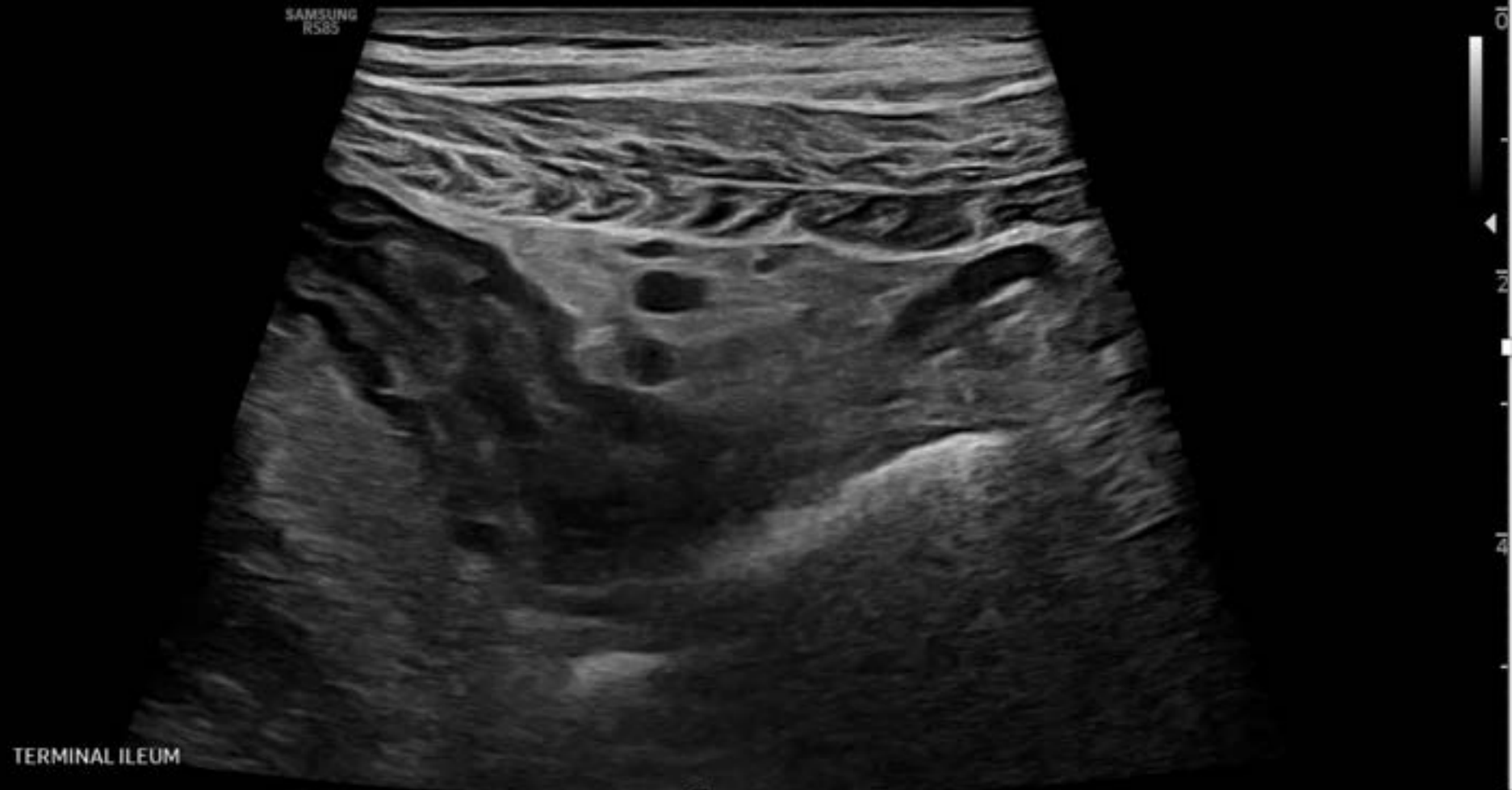
Musculoskeletal / MV Bowel / LA2-14A / FPS8 / 5.5cm / M1.3 / T1s0.5  
[2D] Frq Gen./GN 61/DR 45/FA 0/P 100  
[PD] Frq Gen./GN 51/0.74kHz/P 100





## Risankizumab – Week 24

Musculoskeletal / SW Bowel / LA2-14A / FPS37 / 6.0cm / MI1.4 / TIs0.1  
[2D] Frq Gen./GN 61/DR 45/FA 10/P 100







## Risankizumab – Week 24

**No significant improvement in bowel wall thickening or hyperemia**



**Plan: Switch to upadacitinib**



## Upadacitinib – Week 28

**HBI = 0**

Musculoskeletal / SW BOWEL / LA2-14A / FPS29 / 7.0cm / MI1.3 / TIs0.  
[2D] Frq Res.1 / GN 50 / DR 45 / FA 10 / P100

HAR  

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RS85



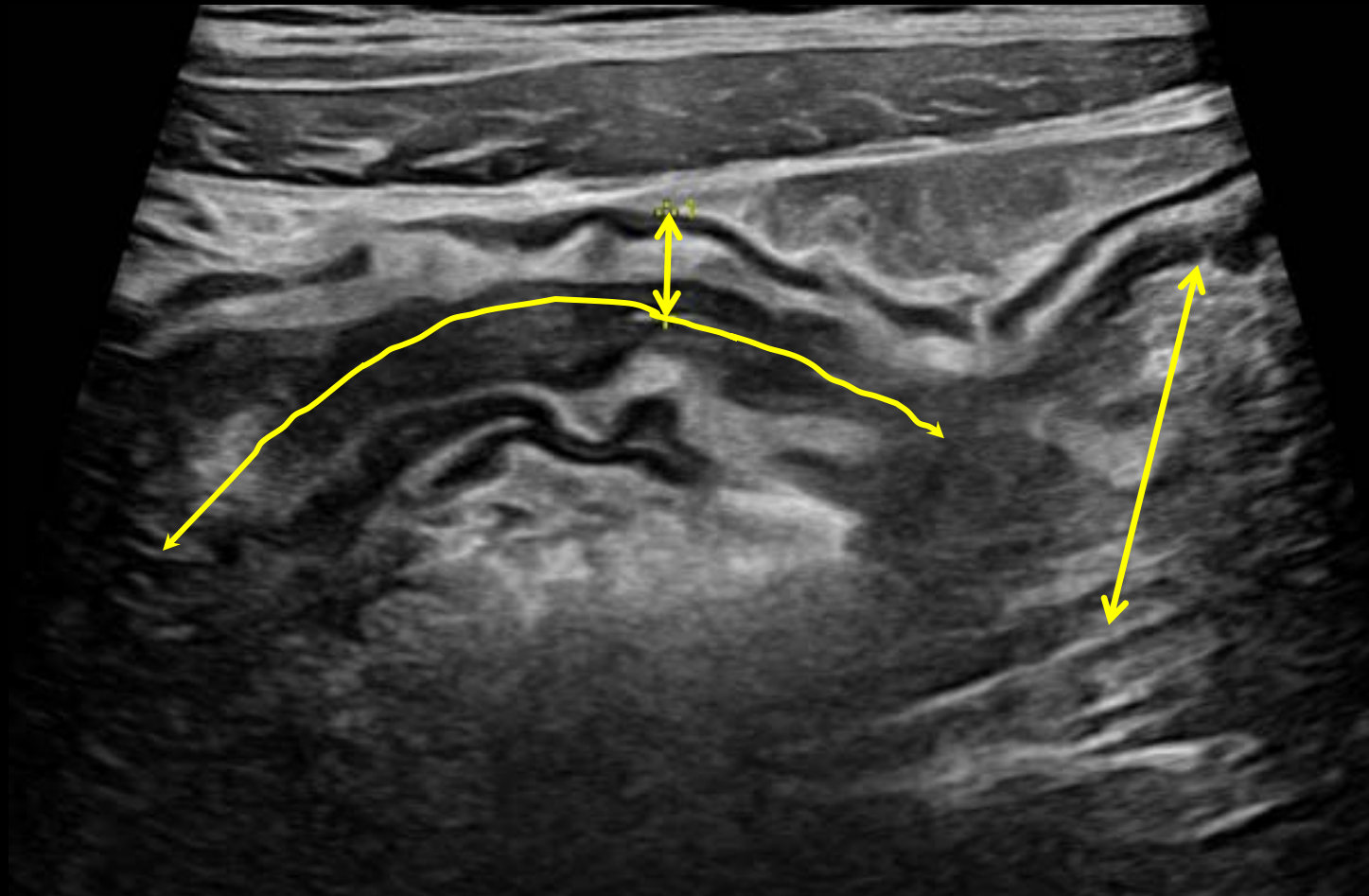


- 23-year-old man with ileal Crohn's disease on monthly infliximab



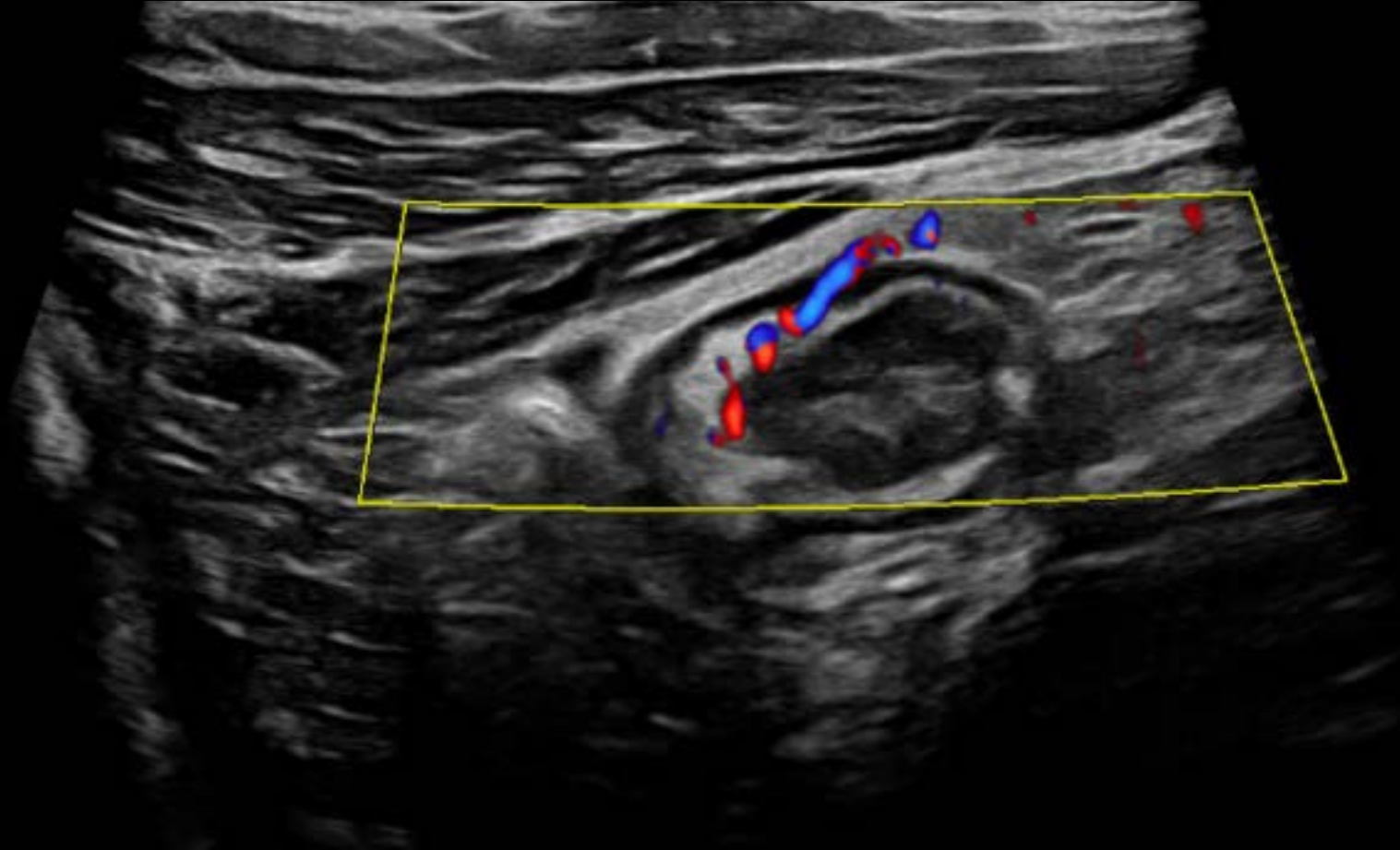
**HBI = 3, FCP = 1143**

**IUS: average TI BWT = 5.1 mm**





**mLimberg = 3**



**Plan: Switch to risankizumab**

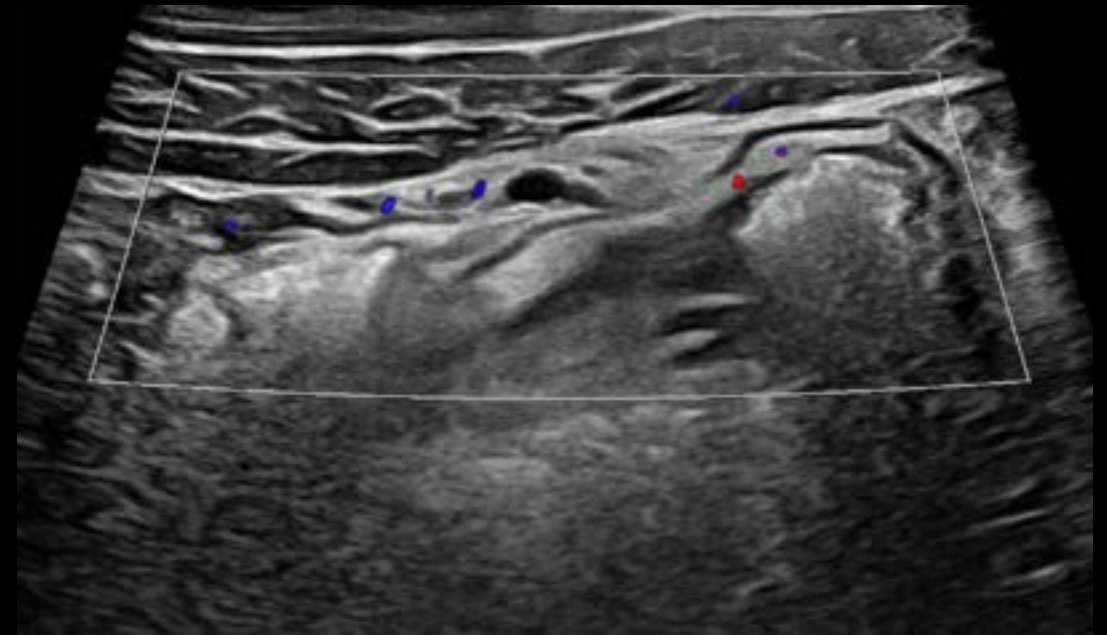
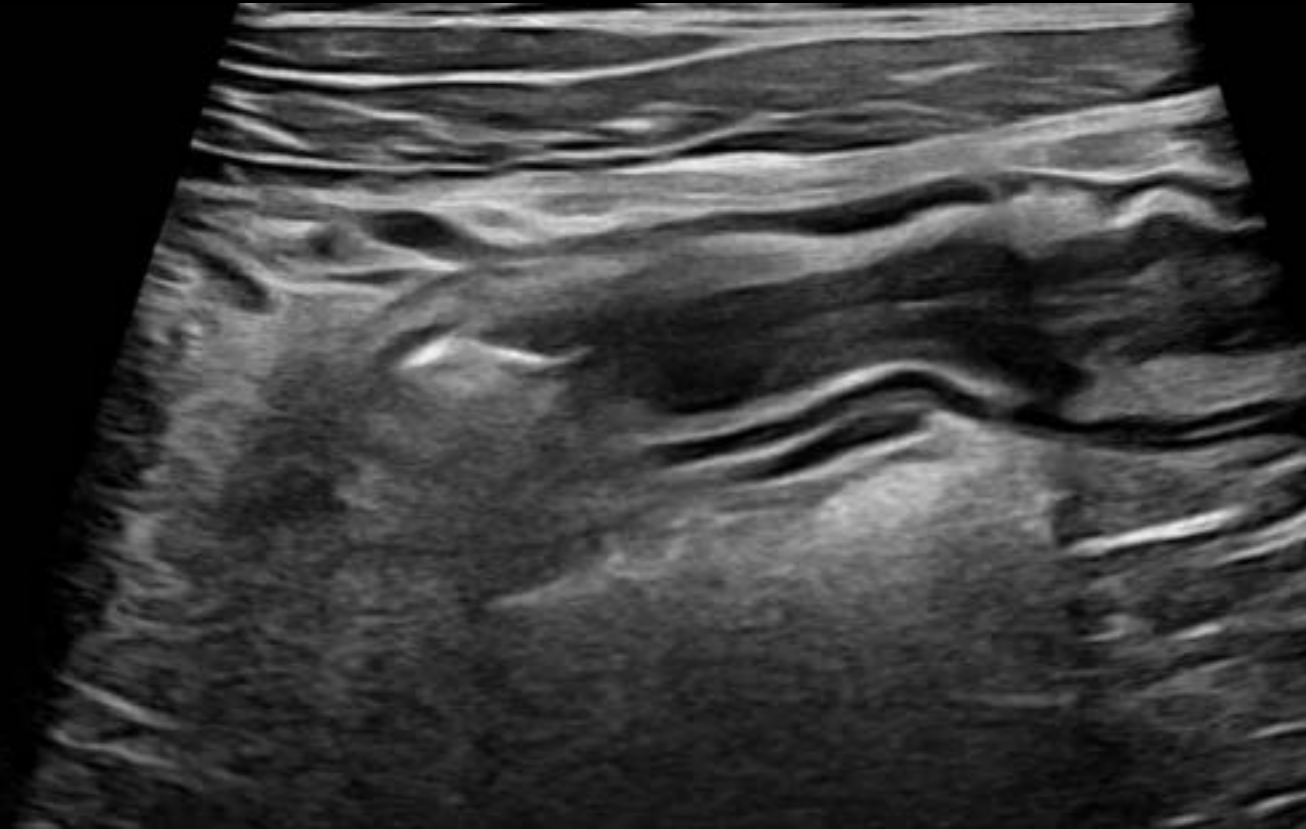




**Risankizumab – Week 15**

**HBI = 3, FCP=164; TI (average BWT) = 4.7 mm**

**mLimberg = 1; improvement in BWT and hyperemia**



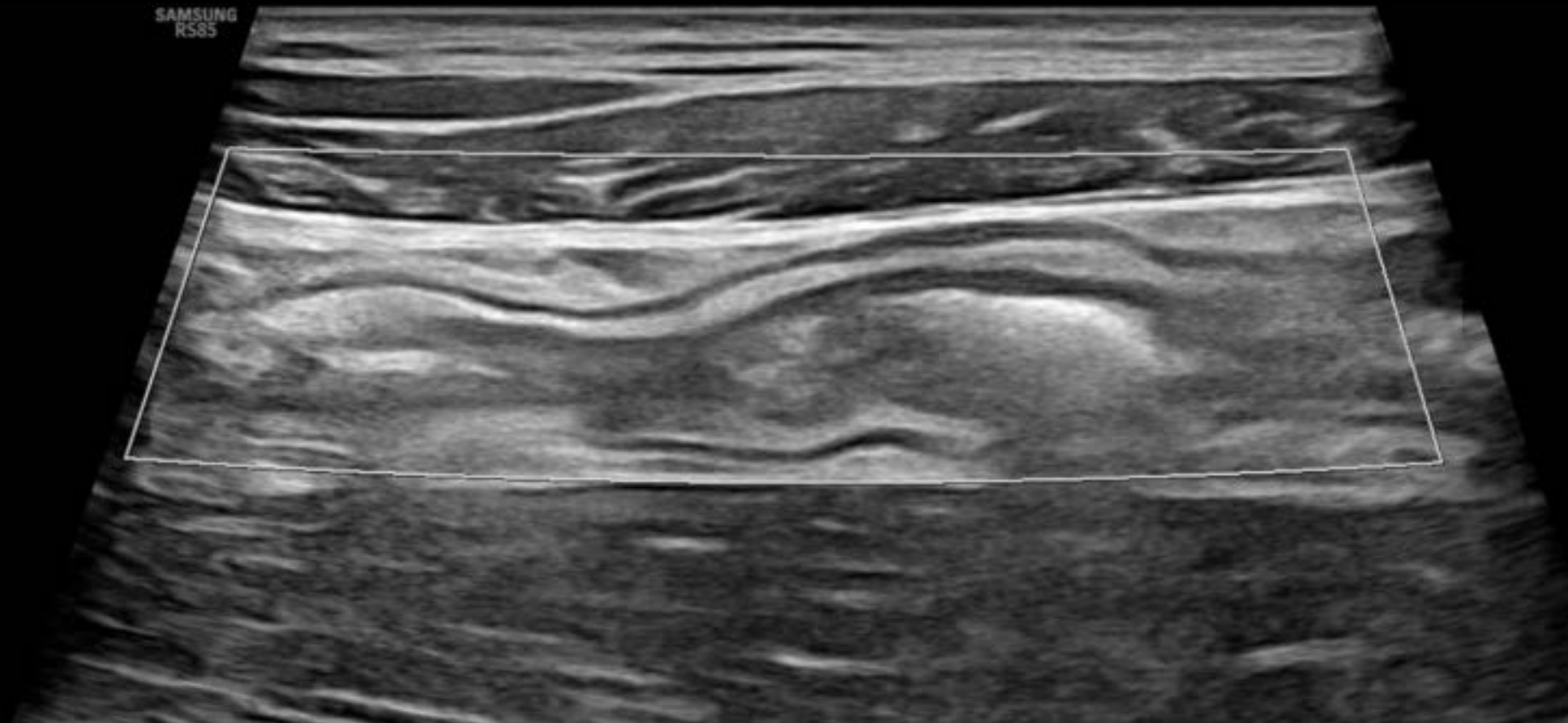
**What would you do next?**



**Risankizumab – Week 26**

**HBI = 2, FCP=138; TI BWT = 2.7 mm**

**mLimberg = 0; proximal bowel dilation resolved**

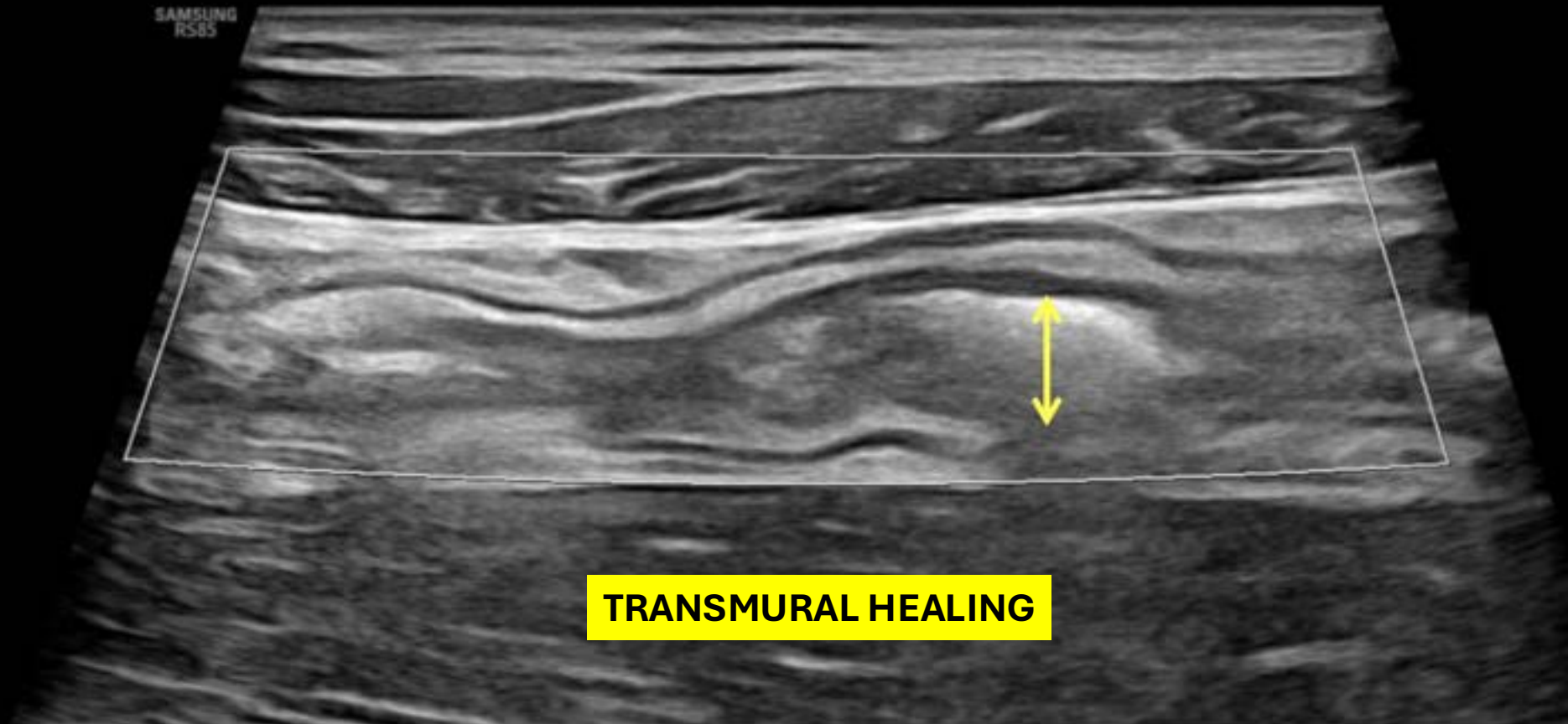




**Risankizumab – Week 26**

**HBI = 2, FCP=138; TI BWT = 2.7 mm**

**mLimberg = 0; proximal bowel dilation resolved**



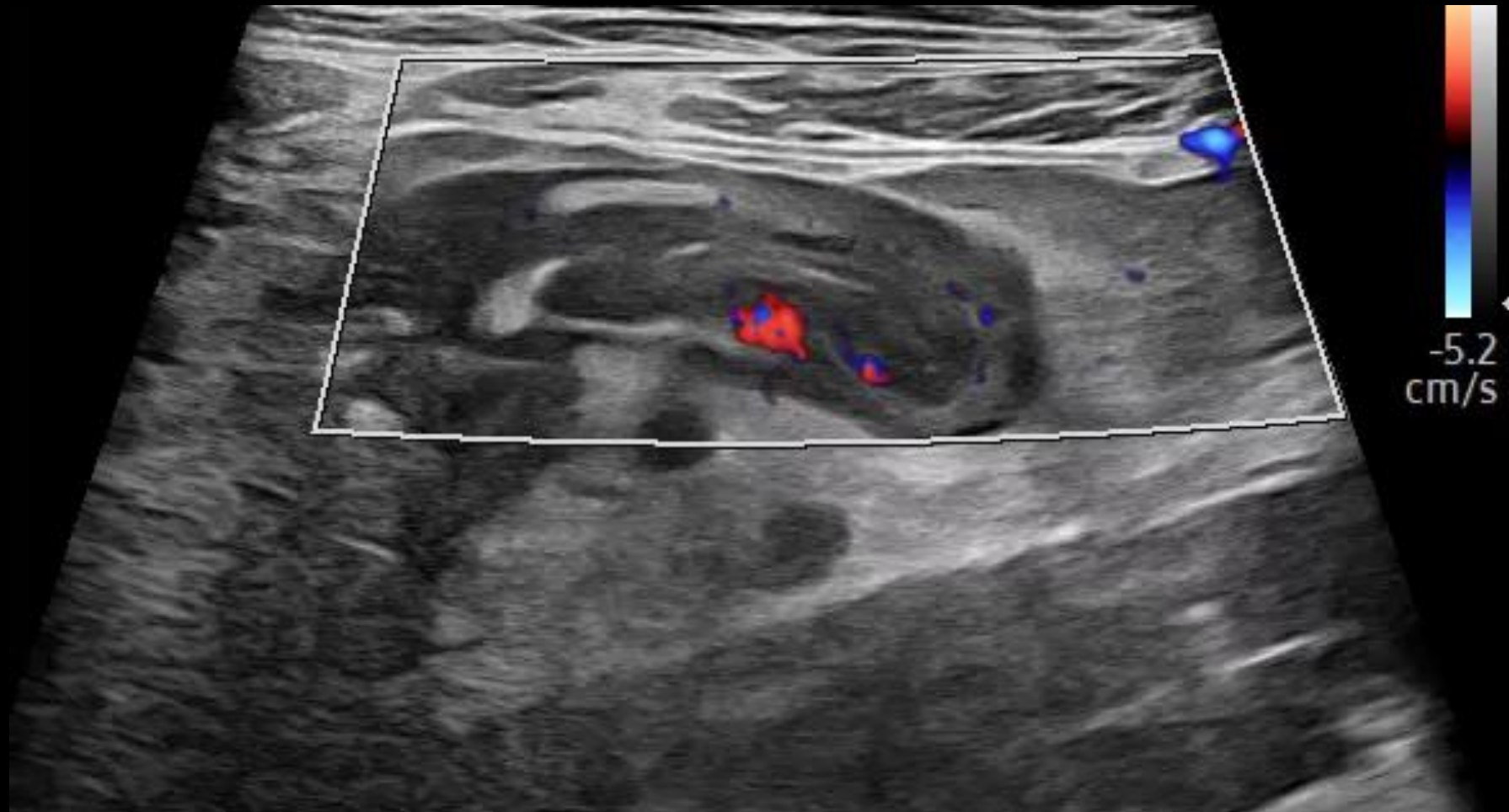


- 25-year-old woman diagnosed with Crohn's disease at 12 years old
- A1L1B2 (10 years later → A1L1B2<sub>p</sub>) on adalimumab biweekly
- Escalation of adalimumab without response → initiation of infliximab + MTX





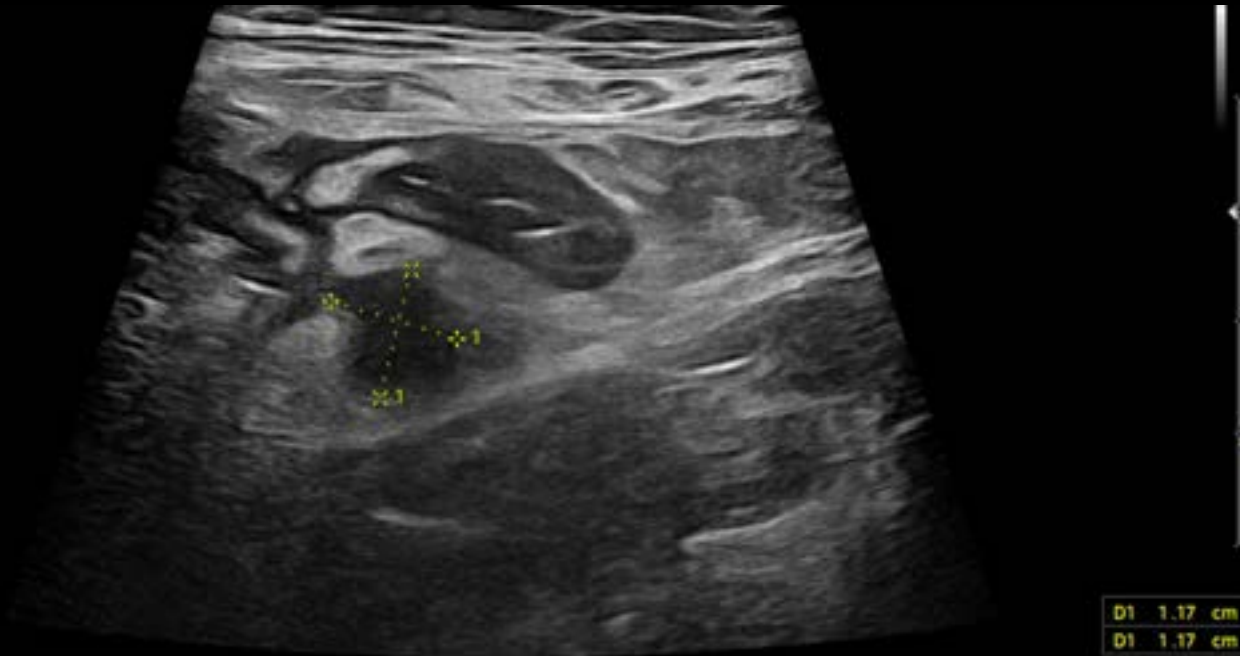
## Infliximab + methotrexate – Week 12







A1L1B2 → A1L1B2<sub>p</sub> → A1L1B3<sub>p</sub>





Musculoskeletal / MV Bowel / LA2-14A / FPS46 / 4.5cm / MI1.4 / TIs0.1  
[2D] Frq Gen./GN 61/DR 45/FA 10/P 100



SAMSUNG  
RS85

ASCENDING COLON AND TI

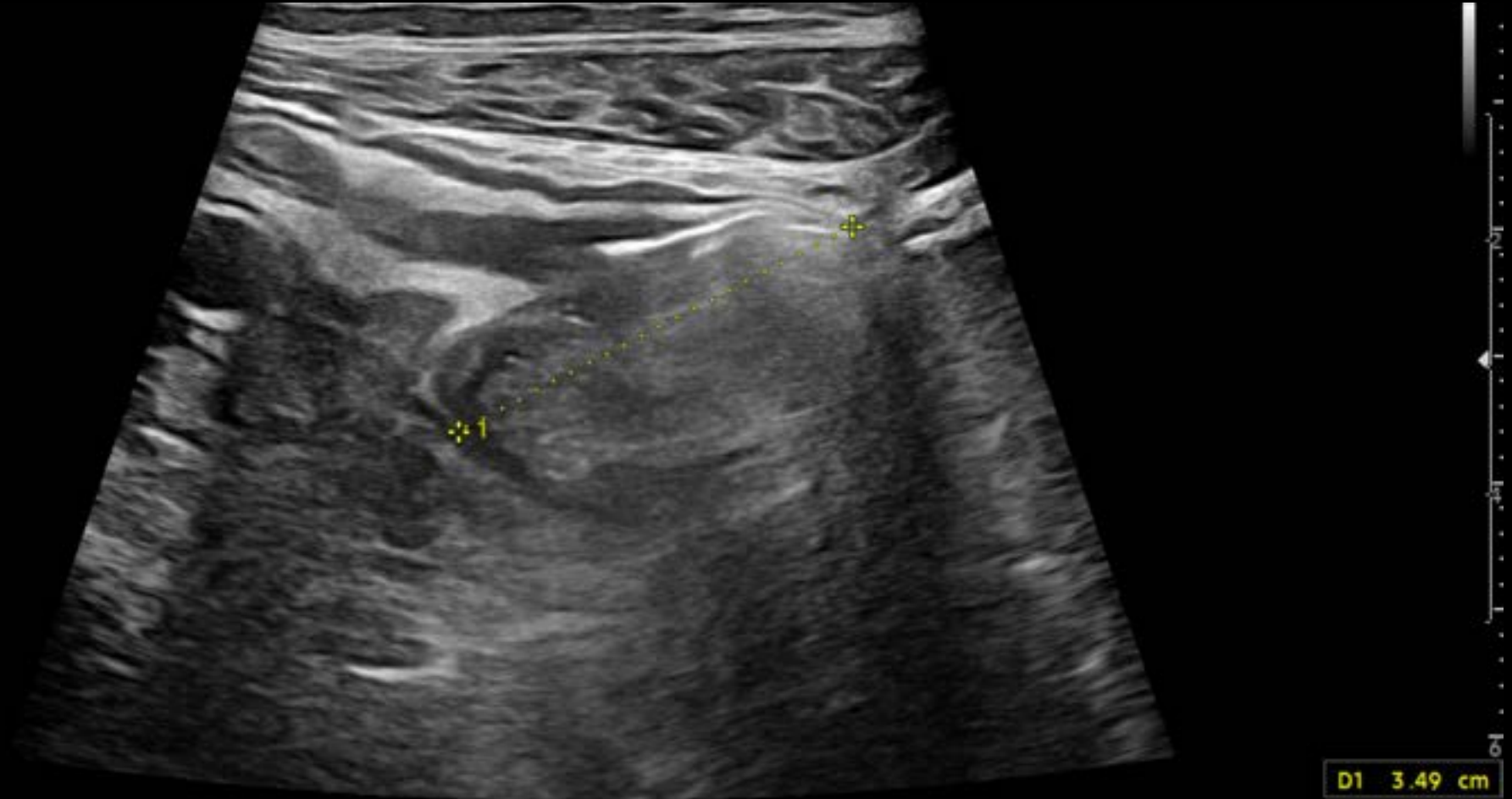
0

2

4



## Infliximab + methotrexate – Week 12



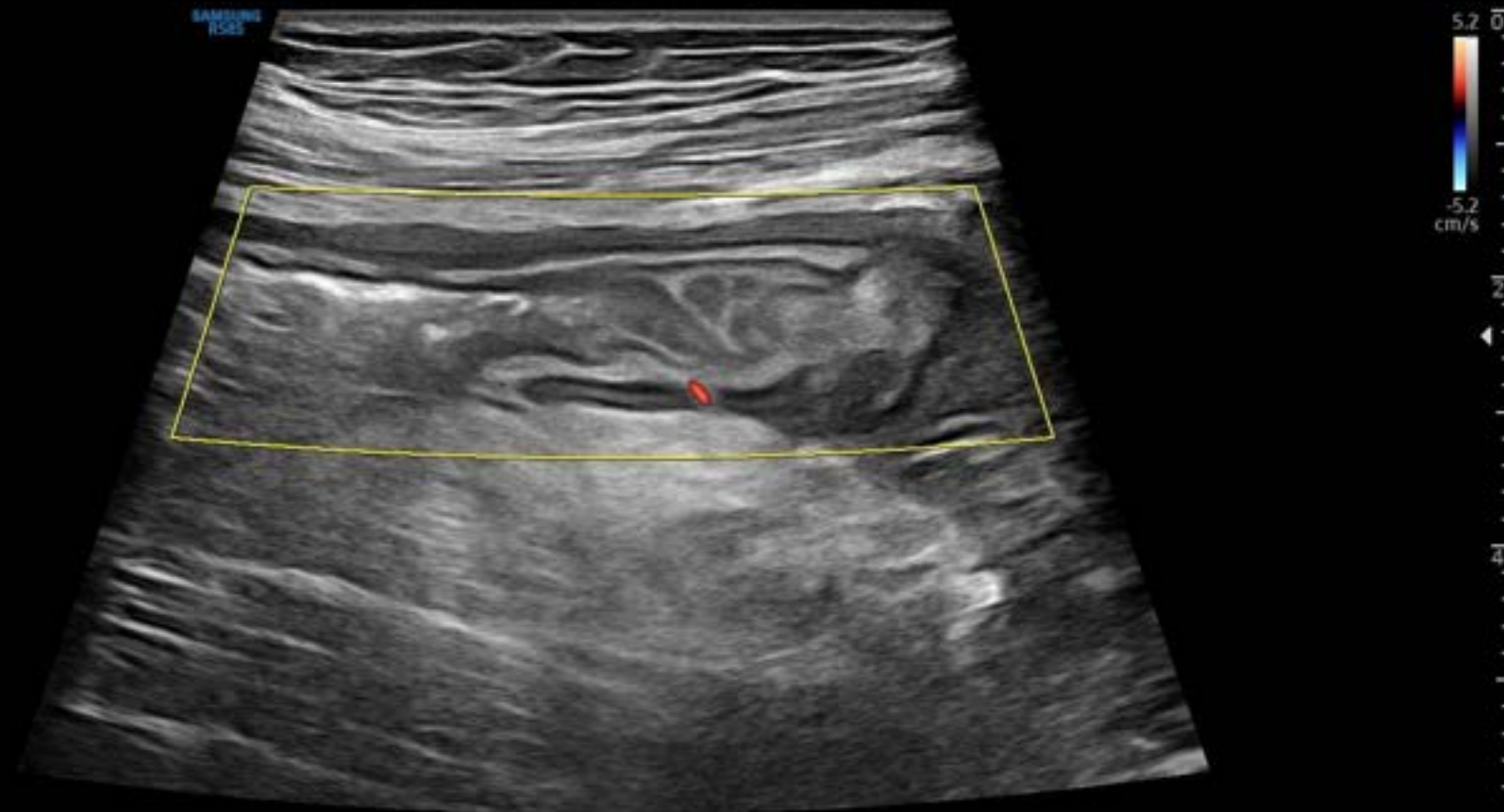


- The patient was referred for a laparoscopic ileocecectomy
- Terminal ileum and cecal biopsies revealed mildly active Crohn's enteritis with stricture and fistula formation





## 3-month post-operative assessment

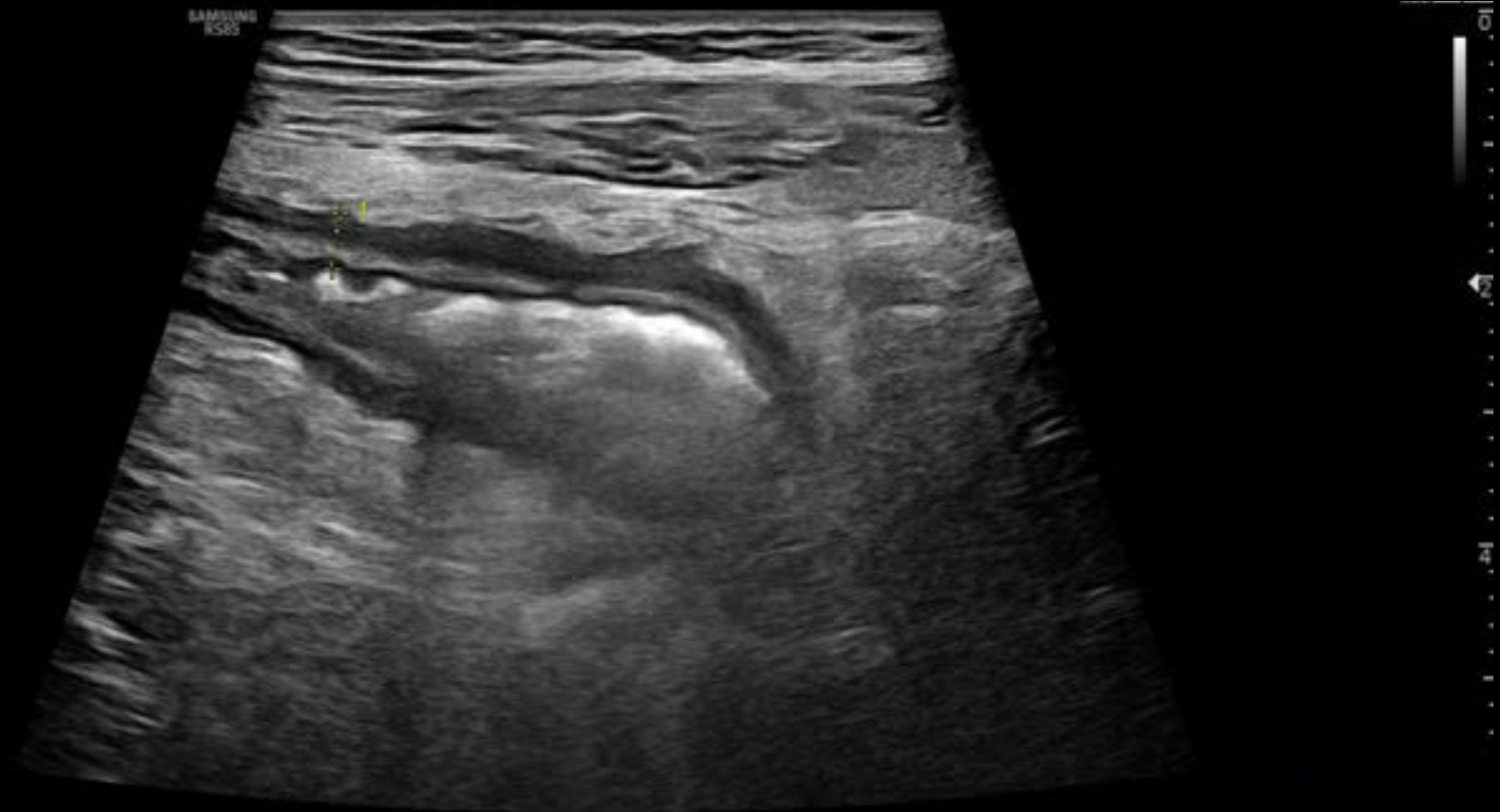


ILEOCOLIC ANASTOMOSIS





## IUS concerning for rapid post-op recurrence

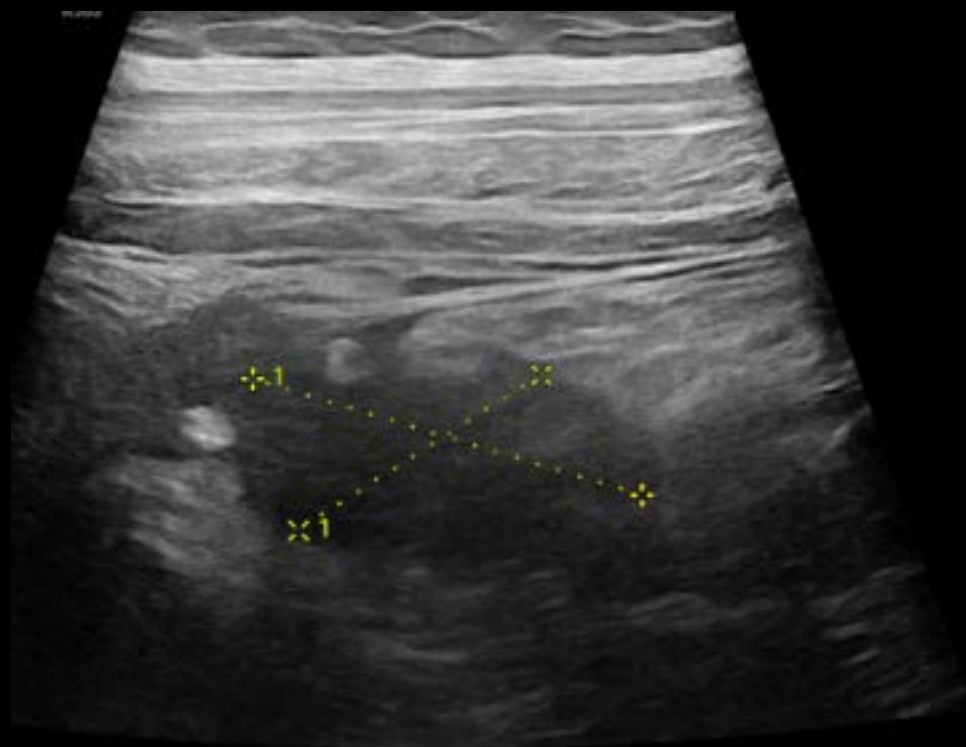


**BWT = 5.6 mm**

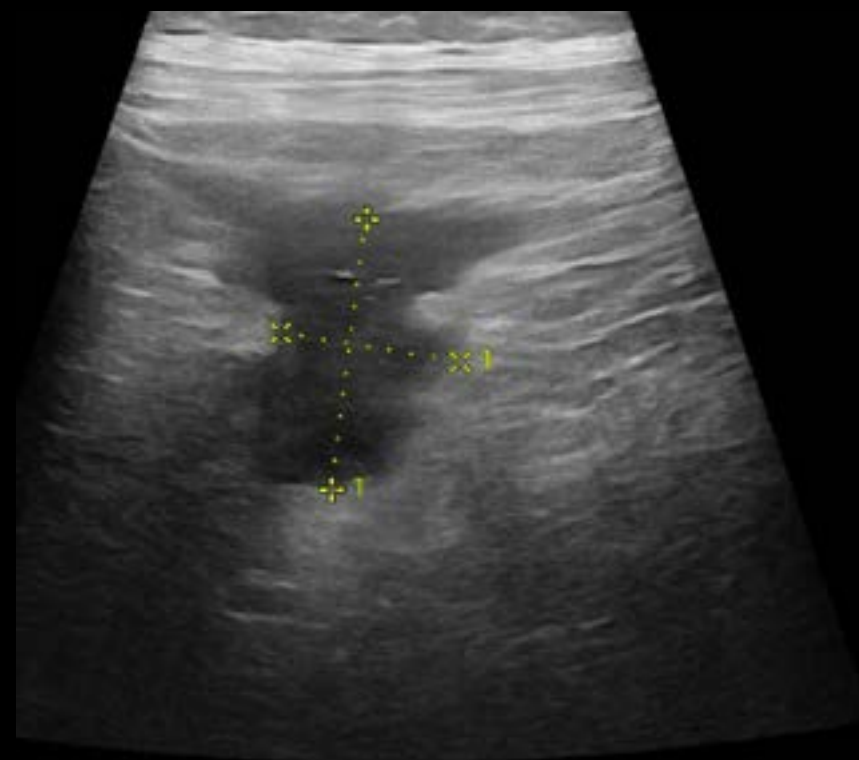


- 23-year-old woman A2L3B3 with recent CT imaging of perforated ascending colon with a perihepatic abscess 1 cm x 1 cm
- Admitted for antibiotics, completed course at home
- Presents one month later for a second opinion

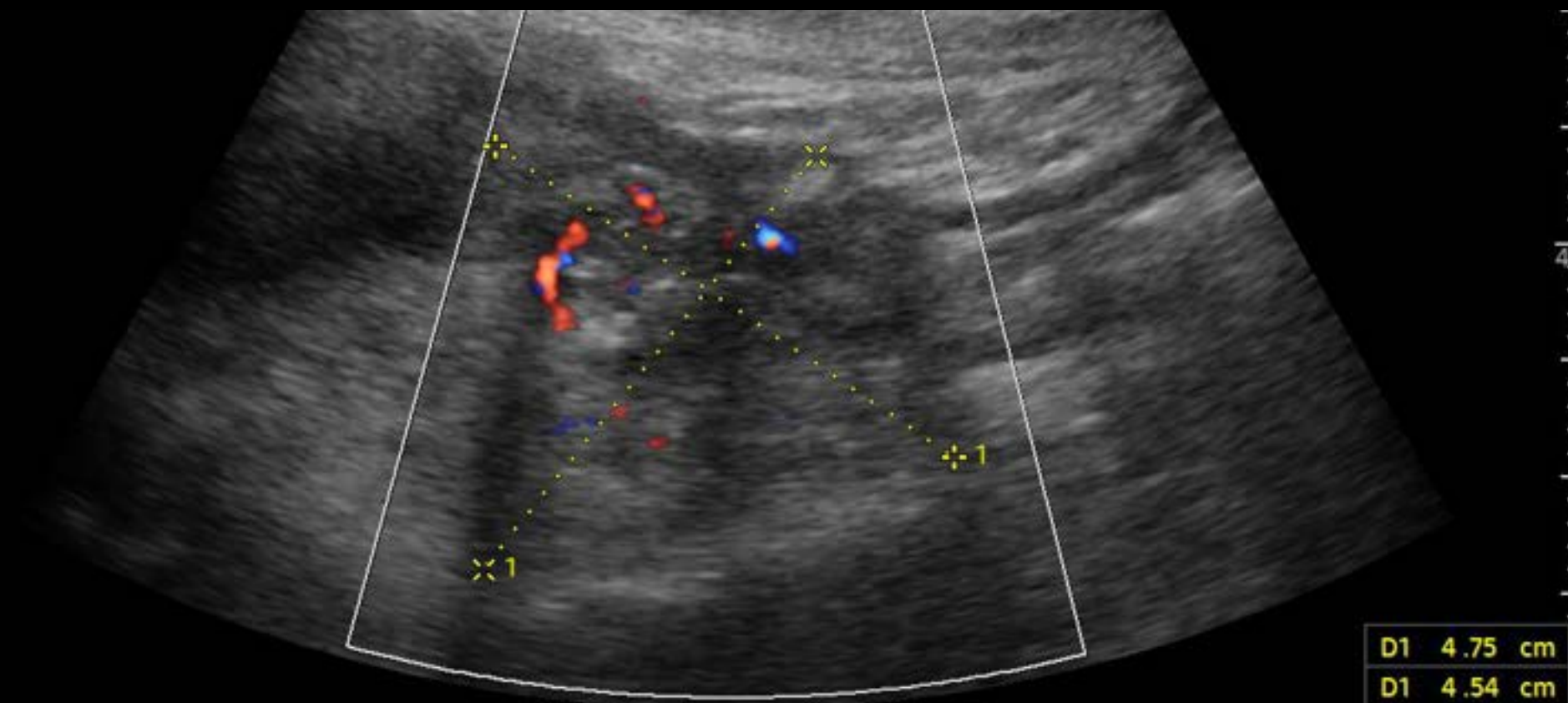




D1 3.46 cm  
D1 2.45 cm



D1 2.97 cm  
D1 1.97 cm

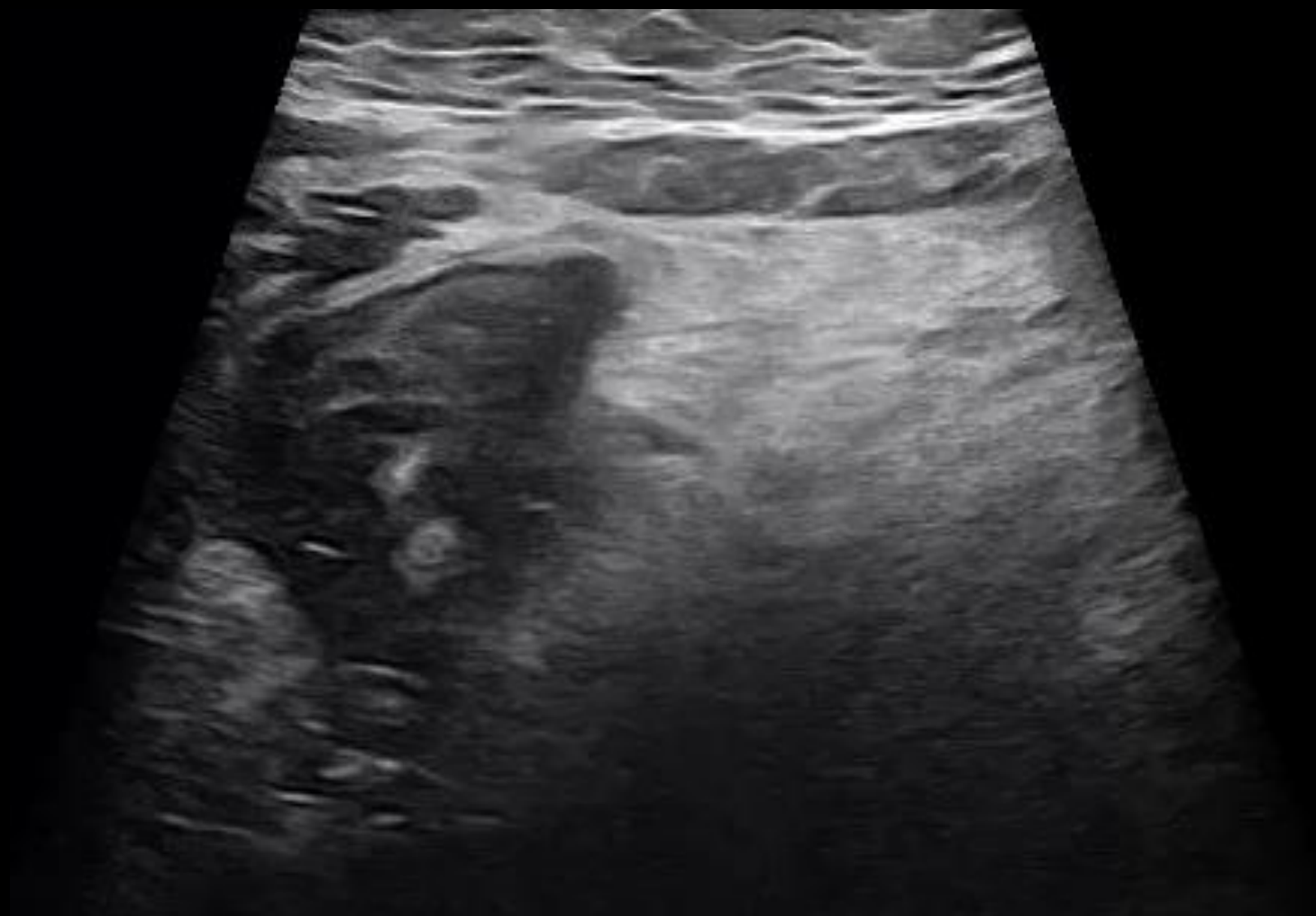


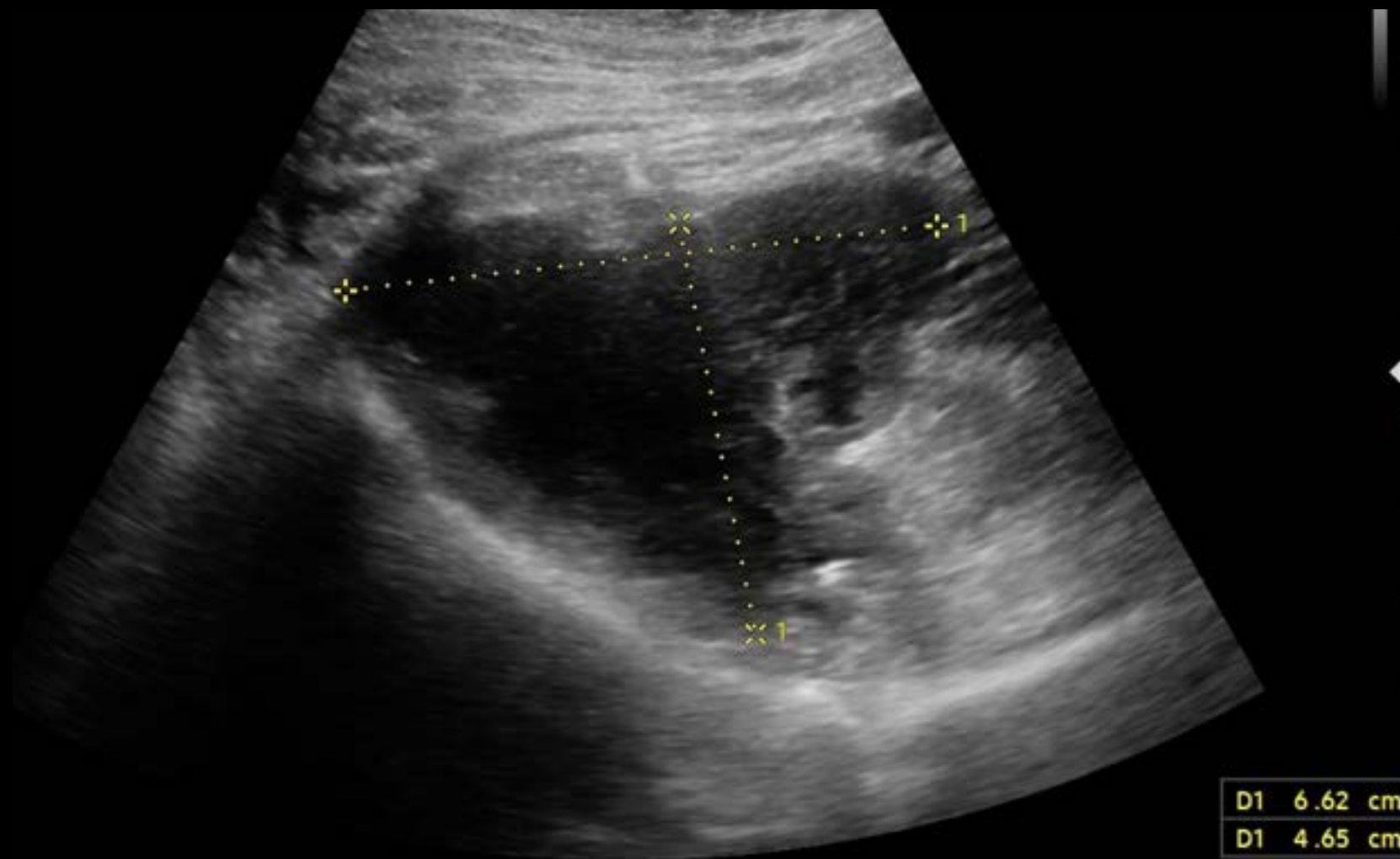
ASCENDING COLON **PHLEGMON**

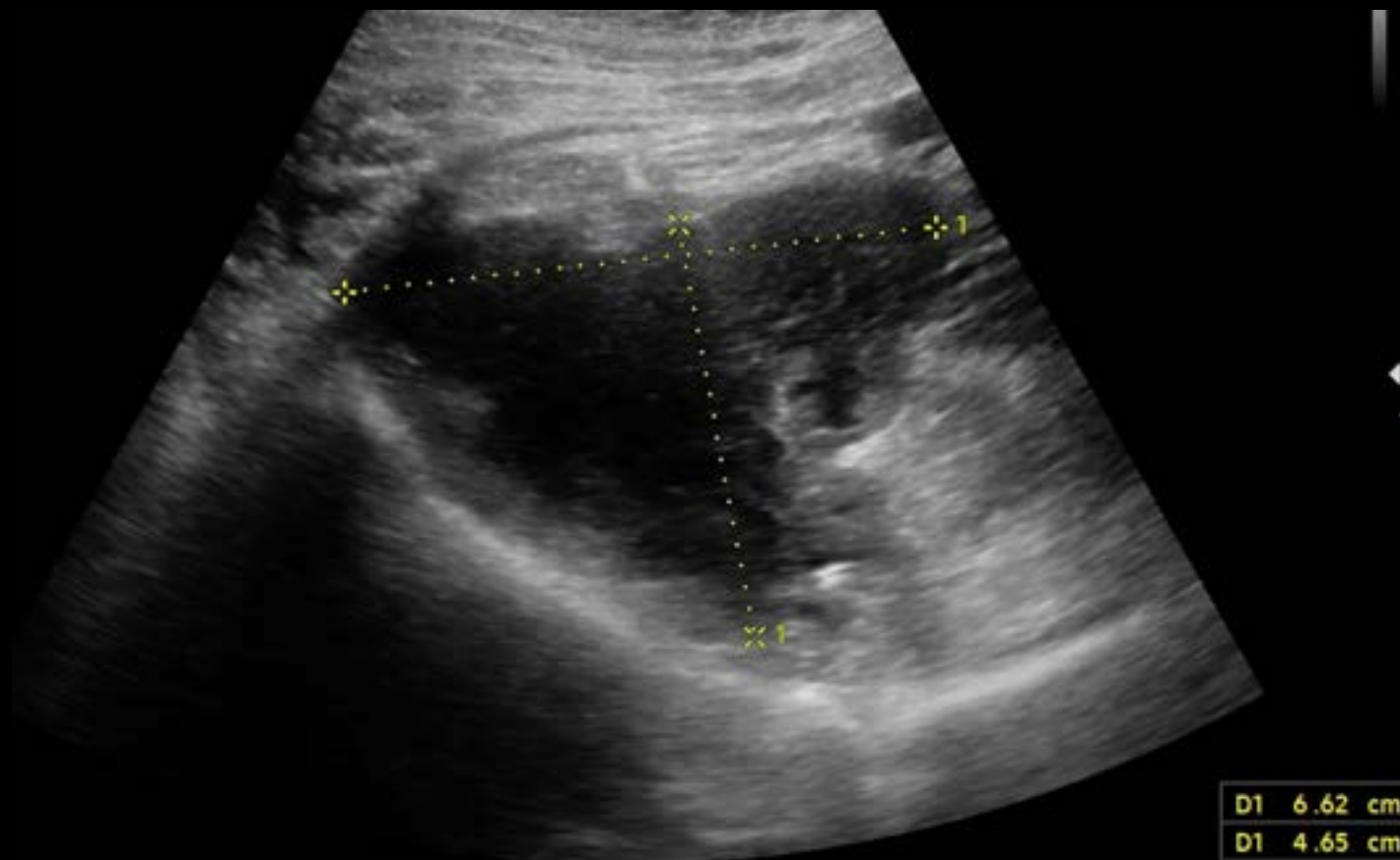
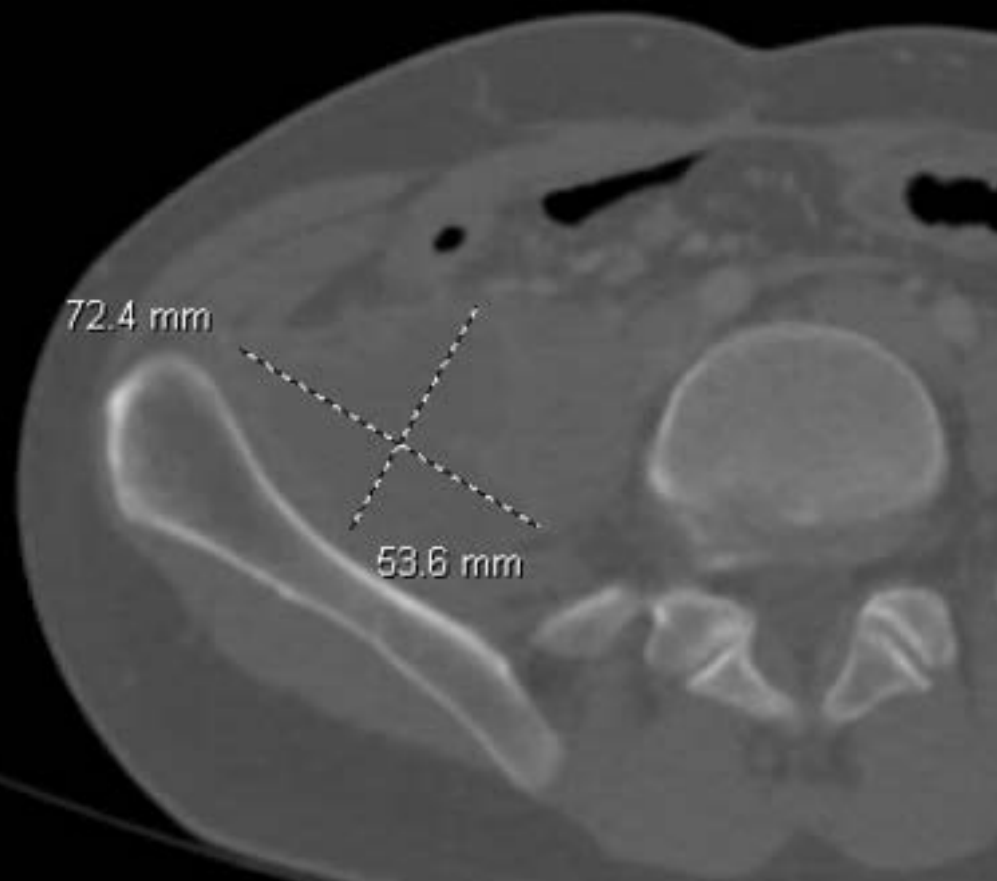




- 41-year-old man A2L1B3 s/p two ileocolonic resections on no therapy
- Referred for IUS for disease activity assessment











- 20-year-old man ALL1B1 diagnosed at 12 years old on ustekinumab q6weeks
  - Previously on infliximab which was discontinued due to uncontrolled psoriasis
- IUS with active ileitis → Reinduction of ustekinumab without response
- Now presents with 2 liquid BMs daily, weight loss of 20 lbs over past 4 months, body aches and joint pain



Pediatric / IBD ABD / CA3-10A / FPS39 / 8.0cm / MI1.4 / TIs0.7  
[2D] Frq Gen./GN 40/DR 49/FA 7/P100



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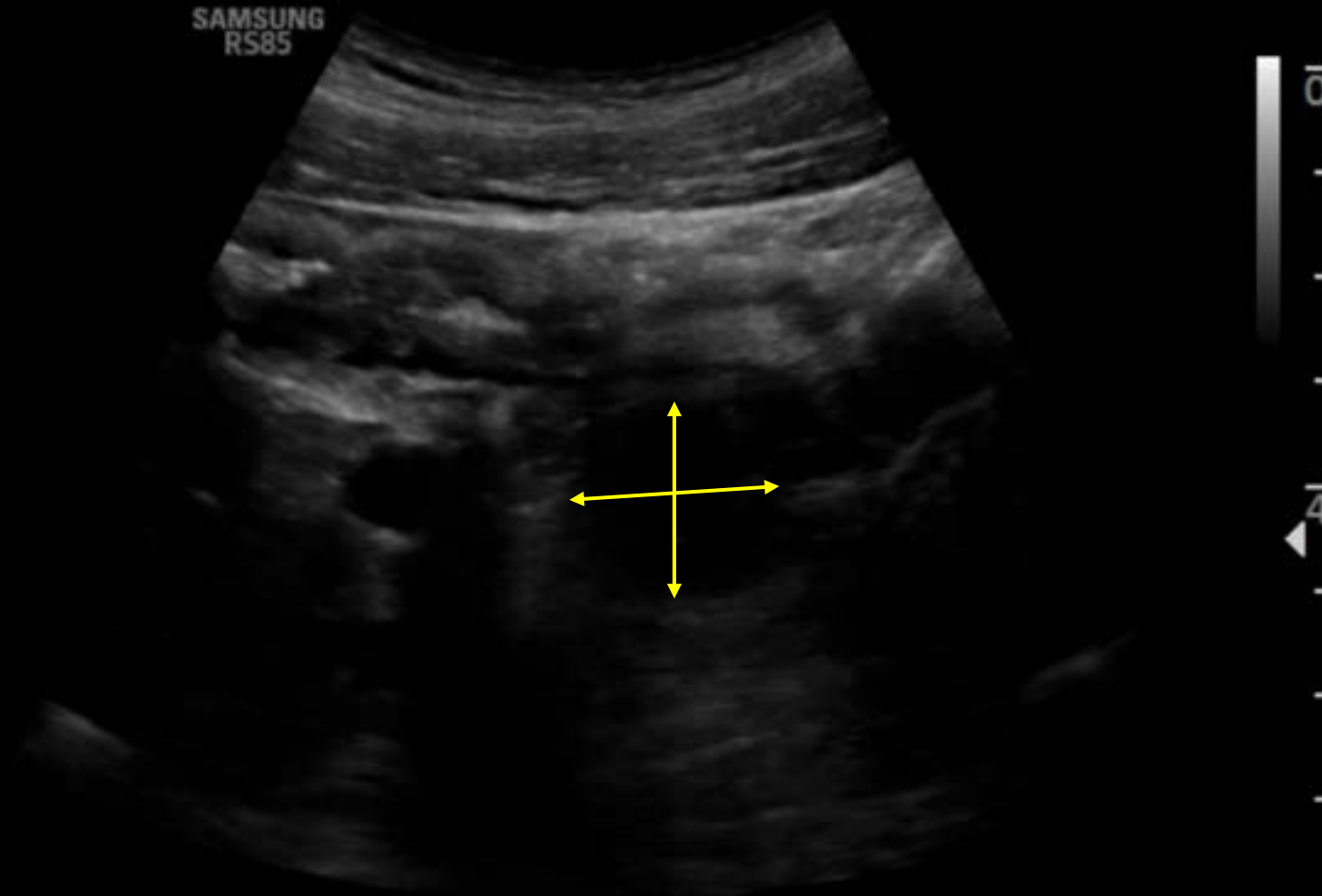




Pediatric / IBD ABD / CA3-10A / FPS39 / 8.0cm / MI1.4 / TI10.7  
[2D] Frq Gen./GN 40/DR 49/FA 7/P100



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Ileal abscess measuring 1.7 x 2 cm



- Plan:
  - Switch to upadacitinib
  - Initiate ciprofloxacin 500 mg BID for 7 days
  - Check labs
  - Schedule follow-up IUS in one week for monitoring of abscess





1 week later

Pediatric / IBD ABD / CA3-10A / FPS43 / 7.0cm / MI1.4 / TIs0.7 / 01-15-2025 11:09:02 AM  
[2D] Frq Gen./GN 49/ DR 49/ FA 7/ P100



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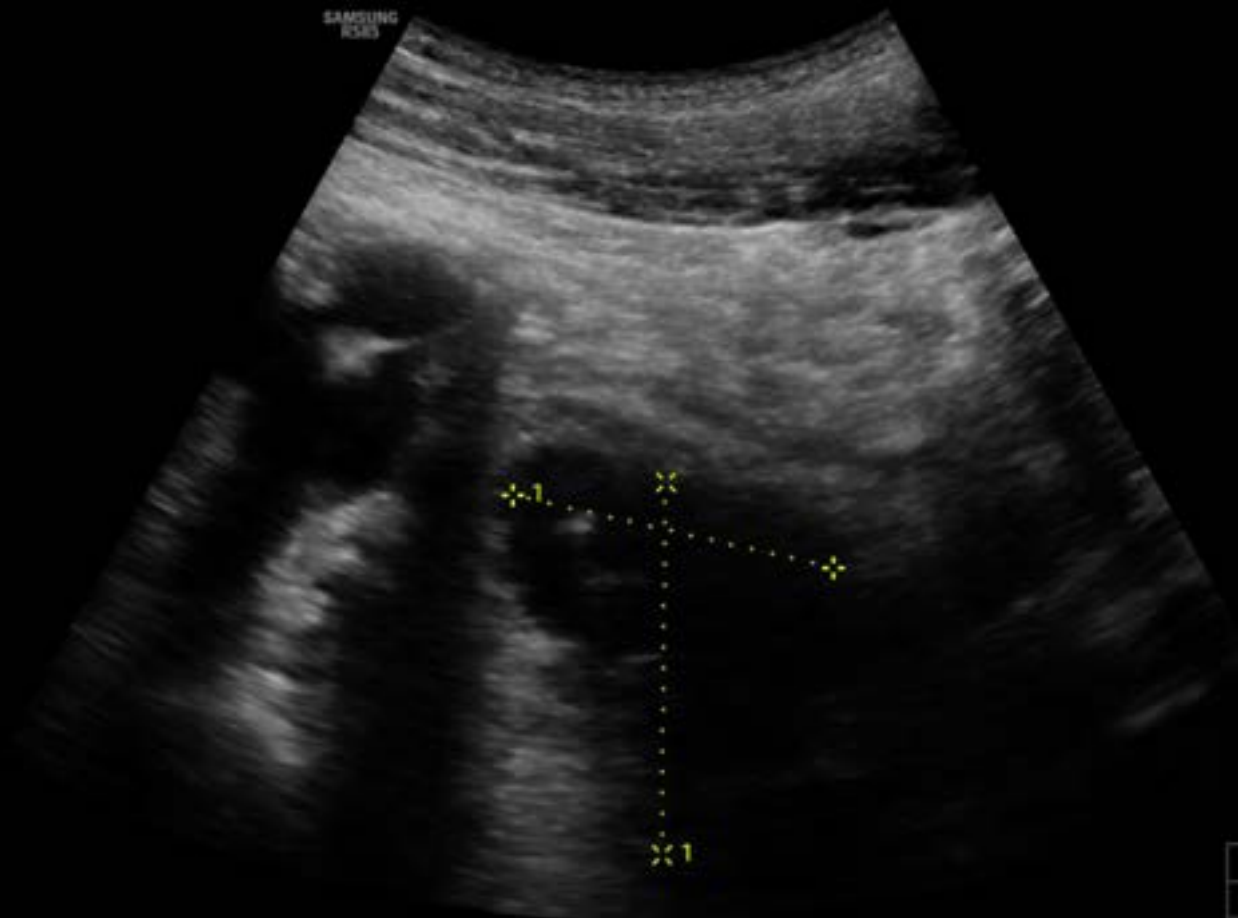


Abdomen /IBD ABD /CA3-10A /FR39Hz /8.0cm

[2D]

Frq Gen.  
GN 49  
DR 49  
FA 7  
P 100

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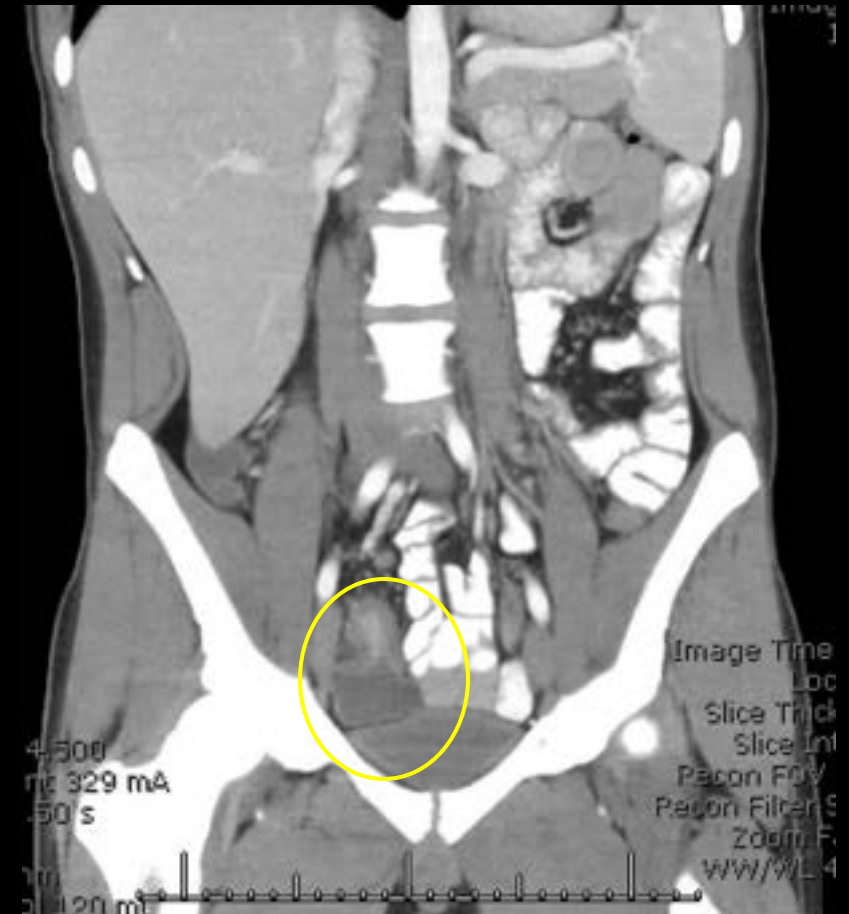


D1 3.09 cm  
D1 3.51 cm

Image Time 11:07:19



## CT Enterography on the same day



CT confirmed TI abscess measuring 5.1 x 3.2 cm



- CRP notably elevated to 57 mg/L
- The patient was admitted for IR drainage, scheduled for the following day
- Started on IV ciprofloxacin and flagyl





- 26-year-old man with penetrating ileocolonic Crohn's disease s/p ileocecectomy and sigmoid repair of colo-colonic fistula
- On upadacitinib 45 mg in clinical remission



Musculoskeletal / SW Bowel / LA2-14A / FPS35 / 7.0cm / M1.4 / T1x0.1  
[10] Fiq Ges. GN 61 DR 45 FA 10 P 100

SIGMOID COLON

3 0 1

Musculoskeletal / SW Bowel / LA2-14A / FPS43 / 5.0cm / M1.4 / T1x0.1  
[10] Fiq Ges. GN 69 DR 45 FA 10 P 100

SIGMOID COLON

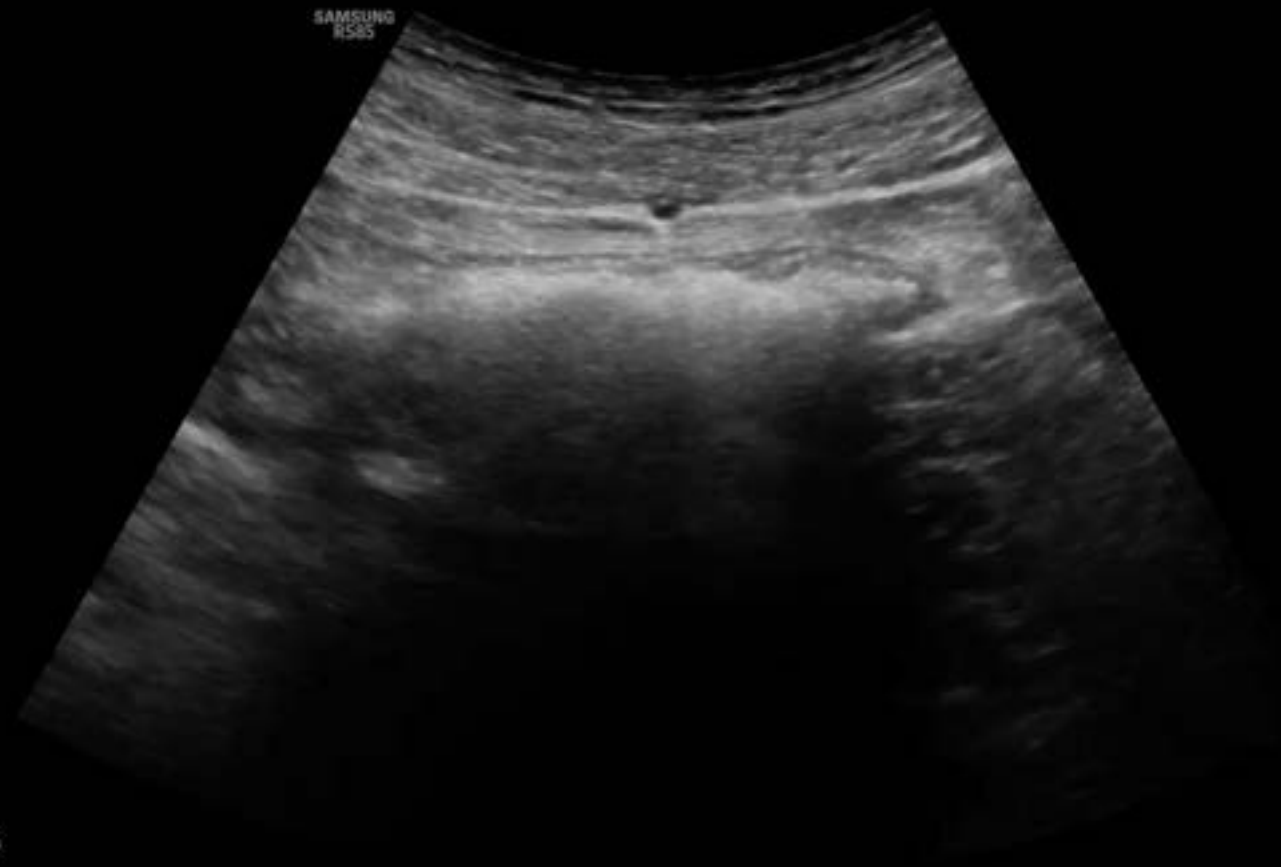
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Pediatric / Std Abd CA3-10A / FPS43 / 7.0cm / MI1.4 / TIs0.7  
[2D] Frq Gen./ GN 43 DR 49 FA 7 / P 100



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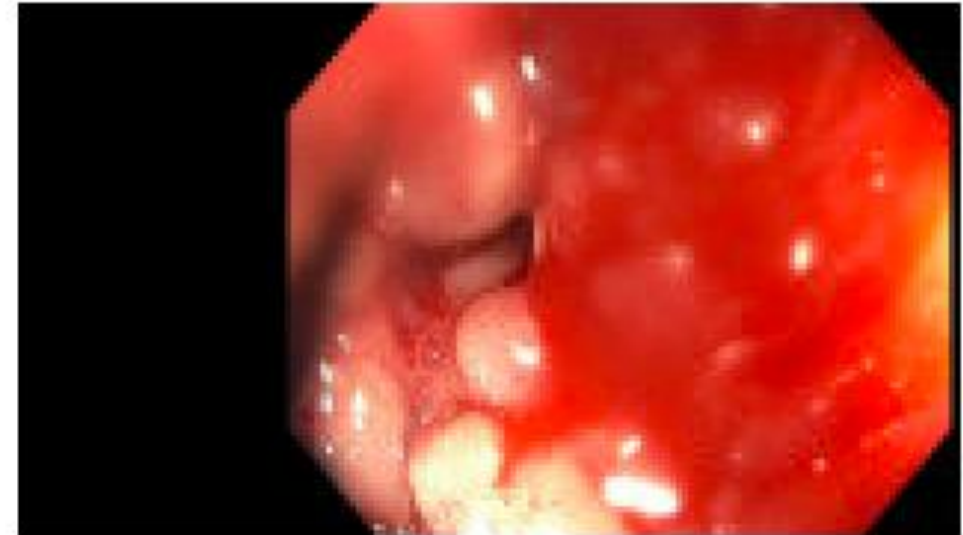


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- Colonoscopy 5 months later with severe stenosis measuring 3 mm (inner diameter) in the sigmoid that was not able to be traversed
- Pt referred for a subtotal colectomy (sigmoid resection)
- Path: Severely active Crohn's colitis with stricture formation, knife-like fissuring ulcers, and granulomas.



8 Sigmoid Colon