

Post Operative Crohn’s Management. A Multidisciplinary Case based Discussion.

Sean Fine (Adult IBD)
Jim Lewis (Adult IBD)
Caitlin Phinney (NP surgery)
Chris Morgan (Pediatric IBD)
Olga Bereseneva (Colorectal Surgery, Adult)

1

Learning Objectives

- Identify preoperative decisions that directly influence postoperative outcomes
- Develop a postoperative plan
- Select individualized postoperative therapy
- Construct an objective surveillance strategy

2

Case 1- 24-year-old male with Crohn’s

Diagnosis & anti-TNF era

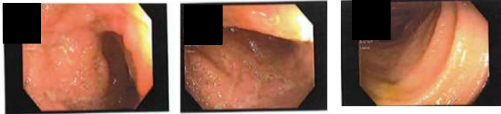
- Diagnosed at 15
- Inflammation improved symptomatically
- Optimized dosing based on follow-up colonoscopy with active ileal inflammation



3

Colonoscopy

SES-CD 7



4

Diagnosis & anti-TNF era

- Infliximab improved symptoms, but endoscopic disease persisted
- Optimization of anti-TNF

Transfer to adult GI

- Clinically well on IFX 10 mg/kg q8w + budesonide
- MRE, ILS-con, active distal ileitis
- Colonoscopy

Risankizumab

- Changed therapy
- Follow-up MRE active terminal ileum and proximal cecum despite limited symptoms

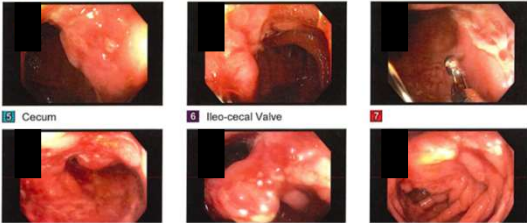
Upadacitinib

- Changed therapy for persistent inflammation
- Colonoscopy 6 months later

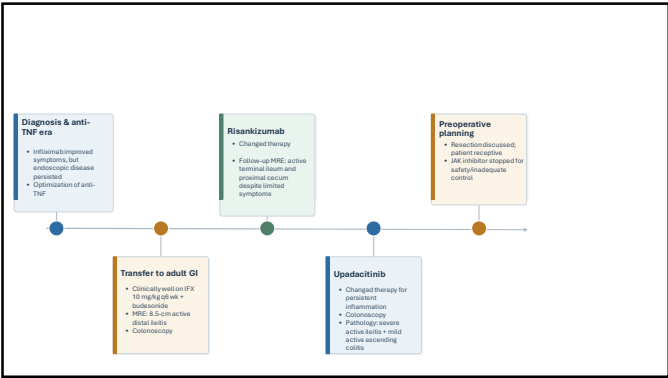
5

Colonoscopy

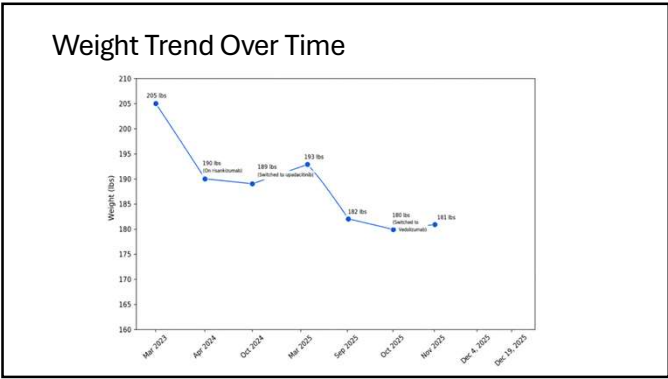
SES-CD 9



6



7



8

CBC		LIVER PANEL		OTHER	
WBC	8.2	AST (SGOT)	23	CRP	13
RBC	5.42	ALT	30	Vitamin D	14
Hemoglobin	14.4	Alkaline Phosphatase	109		
Hematocrit	44.6	Protein, Total	8.3		
MCV	82.3	Albumin	4.4		
MCH	26.6	Bilirubin, Total	0.3		
MCHC	32.3	Bilirubin, Direct	0.1		
RDW	14.2				
Platelets	288				

9

Postoperative Management Begins Before Surgery

- He has lost about 25 pounds, but albumin is 4.4.

How do you assess whether this patient is nutritionally ready for surgery?

10

Malnutrition and Sarcopenia: Markers of Increased Risk for Surgical Complications

Nutrition Related Parameter	Disease	Post-operative Outcome	No. studies	Pooled OR (95%CI)	P ²
Malnutrition	IBD	All Complications	3	2.44 (1.55–3.85)	98.9%
Sarcopenia	CD	Major Complications ^A	3	2.62 (1.16–5.91)	0.0%
Sarcopenia	CD	All Complications	4	1.92 (0.74–4.95)	49.9%
Sarcopenia	IBD	All Complications	6	3.26 (2.12–5.01)	0.0%
Sarcopenia	IBD	Infectious complications	3	3.10 (0.80-12.01)	58.5%

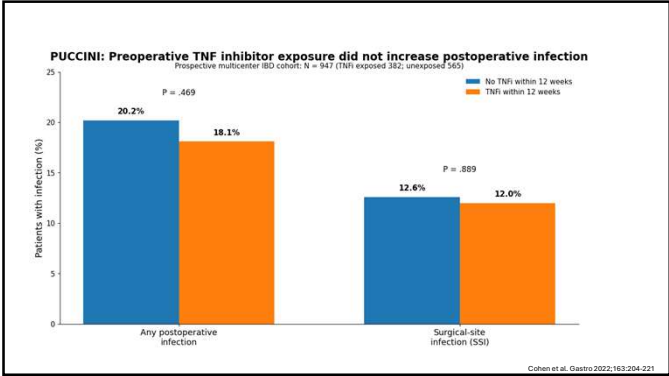
^AClavien-Dindo scale III-V or study-specific criteria

Morogianni K, Krasnovsky L, et al. ESPEN 2026

11

Should we formally screen for malnutrition/sarcopenia—and when should elective surgery be delayed for optimization?

12



16

What Should the GI Provider Take Away From the Operative Report?

17

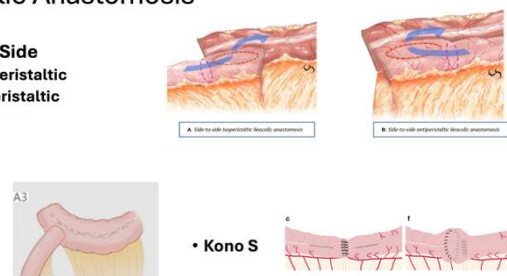
Operative Report

The patient was taken to the OR, the correct patient and procedure were confirmed. The patient was induced and then intubated under general anesthesia. IV antibiotics were given and a Foley catheter was placed. The patient was placed in modified lithotomy positioning on the OR table. An OG was placed by anesthesia and then removed at the end of the case. The patient was prepped and draped in the usual sterile fashion. Again the correct patient and procedure were identified prior to starting the operation. 0.25% Marcaine was used to anesthetize the intersphincteric groove and perianal skin. A digital rectal exam was performed followed by a circumferential anorectal exam with a Hill Ferguson retractor. This was notable for external anal skin tags posterior midline and a intersphincteric anal fistula at the posterior midline. Anterior anal fissure. Skin tags were grasped and excised with scissors. These were passed to pathology for permanent sectioning. An S probe was placed through the fistula tract and a primary fistulotomy was performed which was notable for a small amount of internal anal sphincter muscle. The tract was curetted and hemostasis was ensured with Fovis electrocautery. The edges of the tract were marsupialized with 2-0 Chromic. The anal canal was irrigated. 4 x 4 gauze followed by an ABD and mesh underwear. The patient was taken out of lithotomy and placed in supine position. The abdomen was prepped and draped in the usual sterile fashion. The abdomen was entered via Optiview technique with a 5 mm port inferior to the umbilicus. Insufflation was achieved. Surveillance of the abdomen was performed which showed active crohn's in the T1 for approximately 5 cm, 10 cm proximal to this was a short 1 cm stricture with creeping fat. Inflammation extending to the ascending colon. The remainder of the small was run which was without active crohn's disease. 3 additional 5 mm ports were placed in the left upper quadrant, left lateral abdomen and the left lower quadrant. Mobilization was started beneath the ileocolic vessels carried laterally to mobilize the mesentery of the colon from the duodenum. The white line of Toldt was divided and taken up towards the hepatic flexure. The lesser sac was entered and the dissection was carried laterally. The entry of the hepatic flexure and right colon were mobilized. The mesentery of the ileum was mobilized from the retroperitoneum. The right ureter was identified and preserved. The duodenum was identified and preserved. The mesentery of the terminal ileum was partially divided with the ligasure device. The port superior to the umbilicus was extended superiorly through the umbilicus and a medium Alexis wound ring was placed. The colon was extracorporealized. The mesentery of the transverse colon was divided and then ileocolic pedicle was divided with the ligasure device. The remainder of the terminal ileal mesentery to a viable location was divided. A side-to-side functional end-to-end anastomosis was created. A colectomy and enterotomy were made. A common channel was created with a GIA blue load 60 mm stapler. The common enterotomy was closed and the specimen was amputated from the field with additional firing of the 60 mm blue load stapler. Hemostasis was achieved with 3-0 Vicryl. A suture was placed at the end of the staple line to decrease tension. The specimen was placed back in the abdomen. Insufflation was continued. There is no evidence of bleeding and hemostasis was ensured. The anastomosis was noted to be in good placement without any twists or turns. Insufflation was removed from the abdomen. The Alexis wound ring was removed from the abdomen. Following the colorectal bundle protocol the instruments, drapes, gowns and gloves were exchanged. The midline fascia was closed with #1 PDS in running fashion. The wounds were irrigated with warm saline. The umbilicus was treated with 3-0 Vicryl. The skin was closed with 4-0 Monocryl of the midline and all port sites. Dermabond was used for dressing. A bilateral tap block was performed with 0.25% Marcaine plain via ultrasound guidance. The Foley catheter was removed prior to exiting the operating room.

18

Ileocolic Anastomosis

- **Side to Side**
 - Antiperistaltic
 - Isoperistaltic
- **End to Side**
- **Kono S**



Bainbridge, G., Yanovala, P., Peters, S. et al. Effect of anastomotic configuration on Crohn's disease recurrence after primary ileocolic resection: a comparative retrospective study of end-to-end versus side-to-side anastomosis. *Updates Surg* 15, 1607–1615 (2023).

19

Early Recovery: First Few Days After Surgery

- Early oral hydration; limit excess IV fluids
- Early feeding as tolerated
- Early ambulation
- DVT prophylaxis / anticoagulation
- Expect temporary loose or more frequent stools
- Begin planning for discharge and follow-up

20

After Discharge: Recovery & Continuity of Care

Recovery

- No heavy lifting for 4–6 weeks
- Bowel habits may take weeks to months to normalize
- Red flags: pain, vomiting, distention, fever, wound concerns

Continuity of Care

- Follow-up arranged before discharge
- Clear plan for restarting Crohn's therapy (if stopped)
- Operative findings/pathology communicated to IBD team
- Clear point of contact for postoperative concerns

21

Postoperative Recurrence Risk

High Risk

- Active cigarette smoker
- Penetrating / fistulizing or significant perianal disease
- Prior intestinal resection for Crohn's disease
- Extensive/aggressive phenotype or significant residual active disease
- History suggesting true inflammatory treatment failure before surgery

Low Risk

- First intestinal resection
- Nonpenetrating phenotype; no active perianal disease
- No intra-abdominal abscess or septic complication
- Limited/localized disease

22

The patient is high risk, what are you starting and when?

23

Biologic Prophylaxis Prevents Recurrence

PREVENT Trial

Infliximab vs Placebo

- High-risk Crohn's patients after ileocolonic resection
- Infliximab started within 45 days post-op

Endoscopic Recurrence (Rutgeerts ≥ 12 at 76 weeks)

Trial	Group	Endoscopic Recurrence (%)
PREVENT Trial	Infliximab	30.6%
	Placebo	60.0%
REPREVIO Trial	Vedolizumab	23.3%
	Placebo	62.2%

REPREVIO Trial

Vedolizumab vs Placebo

- High-risk Crohn's patients after ileocolonic resection
- Vedolizumab started within 4 weeks post-op

Severe Endoscopic Recurrence (Modified Rutgeerts ≥ 12b at 26 weeks)

Regueiro et al. N Engl J Med. 2016;374:2424-2434.
D'Haese et al. Lancet Gastroenterol Hepatol. 2020;10:133-143.

24

How to Choose Postoperative Biologic Prophylaxis

How to choose

Biologic-naïve	→ Anti-TNF or vedolizumab
Prior biologic + structural disease	→ Continue / restart effective biologic
Secondary loss of response	→ Optimize / consider reuse
True inflammatory failure	→ Switch mechanism

When to start

- Start early: usually within 2-4 weeks after surgery
- Begin once clinically stable and without postoperative infection or sepsis

25

Metronidazole after surgery?

- Randomized trial after ileal resection
- 3 months of metronidazole reduced early severe endoscopic recurrence
- Severe endoscopic recurrence at 3 months: 13% vs 43% with placebo
- Lower clinical recurrence at 1 year was also reported

• Limitations

- Nausea, dysgeusia, and poor tolerability
- Peripheral neuropathy concern with prolonged use
- Benefit appears strongest early; long-term benefit is less clear

Rutgeerts et al. *Gastroenterology*. 1995.

26

What are preferred strategies for surveillance?

27

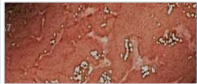
De Cruz P, et al. *Lancet*. 2015;385:1406-1417

28

29

30

Modified Rutgeerts Score: Endoscopic Postoperative Recurrence

 i0 No lesions Normal neoterminal ileal mucosa.	 i1 ≤5 aphthous lesions Few aphthae in the neoterminal ileum.	 i2a Anastomotic lesions only Lesions confined to the ileocolonic anastomosis.
 i2b >5 aphthae / skip lesions Neo-T1 lesions with normal intervening mucosa; + anastomotic lesions.	 i3 Diffuse aphthous ileitis Aphthae with diffusely inflamed intervening mucosa.	 i4 Severe diffuse recurrence Large ulcers, nodules and/or luminal narrowing.

31

Case 1: Postoperative Assessment

Postoperative prophylaxis: vedolizumab started 4 weeks after surgery



Fecal Calprotectin
<50



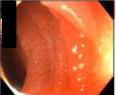
MRE
Normal post-operative findings



Colonoscopy



i2a

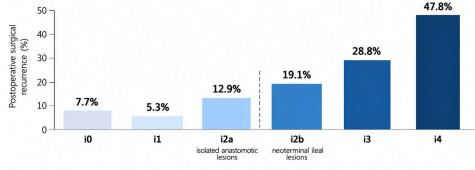


→ Continued current therapy / no escalation

32

Not All Postoperative Recurrence Carries the Same Risk

Retrospective study of 652 patients followed for a mean of 6.4 years



Score	Postoperative surgical recurrence (%)
i0	7.7%
i1	5.3%
i2a (isolated anastomotic lesions)	12.9%
i2b (neoterminal ileal lesions)	19.1%
i3	28.8%
i4	47.8%

Bak MTJ, et al. Am J Gastroenterol. 2024;119(2):306-312.

33

What if this were i3-i4 Recurrence?



What would you change-and when would you reassess?

34

What if we moved to surgery at 17 years old?

- Pediatric guidelines borrow from adult data
 - Lack good prospective pediatric trials
 - Rescope within 12 months
- Largest pediatric study (n=48) with only 29% with mRS $\geq$ i2
 - Variable endoscopic surveillance timing
- Stratify post-operative prophylaxis using adult risk factors
- Anti-TNF remains primary option
 - Further advanced therapies limited by lack of data and indications

A Yerushalmy-Feler et al. Paediatr Drugs 2020.

35

Case 2: 55-year-old man with ileal Crohn's

- Diagnosed 20 years ago
- First ileocolic resection
- Non-smoker
- No penetrating/no fistulizing disease



Immediate prophylaxis or observation with objective monitoring?

36

Conclusion: Core Management Priorities

- **Optimize before surgery**
 - *nutrition • steroids • smoking • infection*
- **Risk-stratify**
 - *High vs low recurrence risk*
- **Start appropriate prophylaxis early**
 - *When indicated*
- **Monitor objectively, not symptomatically**
 - *Biomarkers • imaging • endoscopy*
- **Act on recurrence when you find it**
 - *Optimize • change • reassess*
