



FIRENZE Convitto della Calza 29 novembre - 1 dicembre 2018

Preoperative management in IBD

Dott. Stefano Scaringi

IBD Unit - AOU Careggi

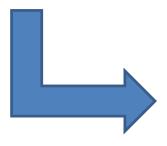


Quando la chirurgia è necessaria essa deve essere la più sicura possibile



What surgeons should take care of?

- ✓ Nutritional status
- ✓ Management of medical therapy
- ✓ Treatment of abdominal sepsis
- ✓ Antithrombotic prophylaxis
- ✓ Antibiotic prophylaxis
- ✓ Bowel preparation
- ✓ Treat and improve comorbidities
- √ Smoking cessation



- Reduce the risk of complications
- Reduce the hospital stay

1. Nutritional status

Crohn's Disease Malnutrition-related factors

- Riduzione dell' apporto nutrizionale x OS (anoressia, nausea, dolore addominale)
- Enteropatia proteino-disperdente
- Digestione inefficace e bacterical overgrowth
- Riduzione della capacità di assorbilento (pregressi interventi chirurgici intestino corto)
- Aumento del fabbisogno calorico (sepsi e trattamento con steroidi)

COLON & RECTUM

Alves A. Dis Colon Rectum. 2007 Mar;50(3):331-6

- "Malnutrition is an important risk factor for postoperative complications and mortality"
- 161 consecutive patients with Crohn's disease underwent elective ileocecal resection (1984-2004)
- 15 patients (9%) developed abdominal septic complications (abscess and anastomotic leaks)
- No postoperative death
- <u>Poor nutritional status</u> (odds ratio, 6.23 (1.75-22.52)), *intra-abdominal abscess* discovered during surgery (odds ratio, 7.47 (1.5-37.69)), *preoperative steroids* use more than three months (odds ratio, 5.95 (1.04-34.1)), and recurrent clinical episode of Crohn's disease (odds ratio (per episode), 1.38 (1.03-1.9))



Scarso stato nutrizionale

Aumento rischio complicanze Aumento della durata del ricovero, peggiori risultati, aumento dei costi

Individuare i pazienti a rischio



- No standard test
- ESPEN: <u>Severe nutritional risk</u> (MUST, NRI,NRS) BMI (<18.5), weight loss (>10-15% in last 6 months), serum albumin <30 g/L (with no evidence of hepatic or renal dysfunction) (1)
- 20–85% of patients with Crohn's disease are malnourished, and one study reported weight loss >10% in nearly three-quarters of patients in the 6 months before surgery (2)
- Hypoalbuminaemia is found in 25–80% and 25–50% of hospitalized patients with Crohn's disease and ulcerative colitis, respectively (2)
- Role of EN, EEN, TPN

- (1) Forbes A. ESPEN guideline: Clinical nutrition in inflammatory bowel disease Clinical Nutrition 36 (2017) 321-347
- (2) Donnellan C. Nutritional management of Crohn's disease. Therap. Adv. Gastroenterol. **6**, 231–242 (2013).

Clinical Study

Preoperative Nutritional Therapy Reduces the Risk of Anastomotic Leakage in Patients with Crohn's Disease Requiring Resections

Table 2: Preoperative management and surgical procedure.

Management	Non-NT group (n = 66) n (%)	NT group (n = 57) n (%)	P value
Preoperative management time (days)	11.3 ± 4.7	22.7 ± 8.2	<0.0001
Nutritional therapy			
EEN	_	48 (84.2%)	
EN and PN	_	6 (10.5%)	
TPN	_	3 (5.3%)	

TABLE 6: Univariate analysis and multivariate analysis for predictive factors of anastomotic leakage.

Variables/categories		tic leakage	Univariate analysis P value	Multivariate Analysis P valu
	Absent (n = 75)	Present $(n = 8)$		
Age (years)			1	
≤40	51	6		
>40	24	2		
Indications for resection			0.130	0.382
Penetrating type	41	7		
Other types	34	1		
Serum albumin of the day before surgery			0.051	0.030
≤35 g/L	13	4		
>35 g/L	62	4		
Serum CRP of the day before surgery			0.142	0.79
≤10 mg/L	49	2		
>10 mg/L	26	6		
Preoperative corticosteroids			0.605	
Yes	11	2		
No	64	6		
Preoperative azathioprine or TWP			1	
Yes	33	3		
No	42	5		
Intraoperative abscess			0.129	0.131
Yes	11	3		
No	64	5		
Active smoker			1	
Yes	25	3		
No	50	5		
Colonic disease			0.286	
Yes	9	2		
No	66	6		
Preoperative drainage			0.675	
Yes	54	7		
No	21	1		
Preoperative nutritional therapy			0.023	0.023
Yes	43	1		
No	32	7		

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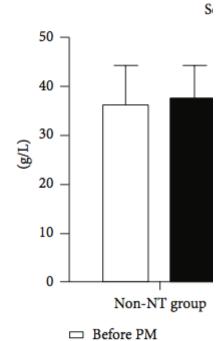


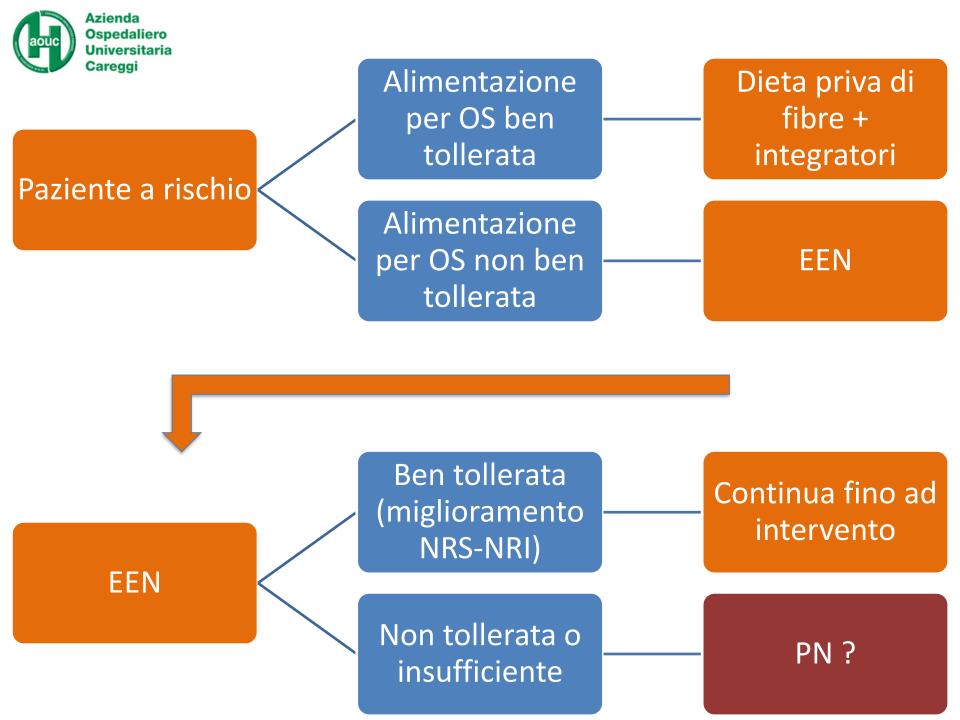
Figure 1: Serum albumin and C-rea 0.05; ****P < 0.001.

After PM

n, number of surgeries; TWP, Tripterygium wilfordii Hook. F.



- Come gestire la nutrizione pre-operatoria ?
- Cosa facciamo quando NE non sufficiente o non possibile ?





PN>no PN?

- 3 studies, small number of patients
 - Jacobson S. Scan J Gastroenterol 2012 → 15 vs 15 pts, PN > No PN
 - Yao GX. World J Gastroenterol 2005 → no difference in complications
 - Salinas H. Int J Colorectal Dis 2012 → 56 pts PN vs 179 no PN, PN Higher complication rate but no difference when line infections excluded

No evidence



2002 surgical procedures for Crohn's Disease (1986-2016)

Perioperative TPN of 132 pts.

Personal Experience - *Clinical data*

 Intestinal fistulae 	69
 Abdominal abscesses 	41
 Obstructive symptoms 	76
 Severe colitis 	6
 Intestinal haemorrhage 	3
 Severe proctitis 	1
N° of cases –	- Associated symptoms



Crohn's Disease Perioperative TPN of 132 pts. Personal Experience - Clinical data

PREOP

POSTOP

PRE versus POST (SD)



Crohn's Disease

Perioperative TPN of 132 pts. - Personal Experience

Postoperative complications

No. pts (%)

	()
Wound infection	3 (2.2)
Abdominal abscesses	2 (1.5)
Urinary infections	2
Obstructive symptoms	1
Postoperative death	0
Postop. stay mean days (SD)	16.2 (+/- 6.1)

Artificial Nutrition in ERAS time





Yes...sometimes



Crohn's Disease and Surgery Personal Guidelines

- Normal nutritional status: Inadeguate oral intake for more than 7 postoperative days (postoperative TPN and EN if possible)
- Moderate malnutrition: <u>Preoperative</u> enteral feeding (less costly, easier to administer and fewer risk); <u>postoperative</u> nutritional support (EN or PN)
- Severe malnutrition: <u>Preoperative</u> EN (enteral polymeric diet and specific CD formula with TFG beta-2); PN + minimal enteral feeding and <u>postoperative</u> nutritional support (EN or PN)

Journal of Crohn's and Colitis, 2018, 1–16 doi:10.1093/ecco-jcc/jjx061 Advance Access publication May 11, 2017 ECCO Guideline/Consensus Paper



ECCO Guideline/Consensus Paper

ECCO-ESCP Consensus on Surgery for Crohn's Disease



3.2.2. ECCO-ESCP Statement 2J

Malnutrition is a significant risk factor for postoperative complications. Nutritional status should be optimised before surgery via enteral or parenteral routes [EL 3]. If surgery is required in a malnourished patient, a staged procedure is advised [EL5]

Sarcopenia is a Predictor of Surgical Morbidity in Inflammatory Bowel Disease

Mark Pedersen, MD, John Cromwell, MD, and Peter Nau, MD, MS

Inflamm Bowel Dis 2017;23:1867–1872

TABLE 5. Results of the Multivariable Analysis Demonstrating Complications Independently Associated with Sarcopenia as Defined by HUAC and TPI in the Population Younger than 40 Years

Complication	HUAC Odds Ratio (95% Confidence Interval [CI])	HUAC P	TPI Odds Ratio (95% CI)	TPI P
Red blood cell transfusion	1.31 (1.056-1.625)	0.014	1.49 (1.08-2.07)	0.0159
ICU admission	1.32 (1.053-1.656)	0.016	1.29 (0.98-1.72)	0.078
Postoperative sepsis	1.325 (1.072-1.636)	0.0091	1.048 (0.86-1.279)	0.6410
Deep vein thrombosis	1.265 (1.043-1.535)	0.0173	0.99 (0.87-1.13)	0.959
Clavien-Dindo grade 4 complication	1.329 (1.056–1.671)	0.0052	1.26 (0.93-1.7)	0.1309

Sarcopenia is a Predictor of Surgical Morbidity in Inflammatory Bowel Disease

Mark Pedersen, MD, John Cromwell, MD, and Peter Nau, MD, MS

Inflamm Bowel Dis 2017;23:1867–1872

- This study demonstrates that sarcopenia is a risk factor for poor surgical outcomes among young patients who undergo abdominal surgery
- Sarcopenia is an insidious finding which is not often recognized on physical examination
- This may help surgeons to identify patients that would benefit from nutritional status optimization before surgery



Contents lists available at ScienceDirect

Clinical Nutrition

journal homepage: http://www.elsevier.com/locate/clnu



Randomized Control Trials

Trimodal prehabilitation for colorectal surgery attenuates postsurgical losses in lean body mass: A pooled analysis of randomized controlled trials

Chelsia Gillis ^{a, *}, Tanis R. Fenton ^b, Tolulope T. Sajobi ^c, Enrico Maria Minnella ^d, Rashami Awasthi ^d, Sarah-Ève Loiselle ^e, A Sender Liberman ^f, Barry Stein ^f, Patrick Charlebois ^f, Francesco Carli ^d

The <u>trimodal prehabilitation</u> interventions of both studies included **exercise**, **nutrition**, **and anxiety-reduction** components that began approximately <u>four</u> <u>weeks before surgery and continued for eight weeks after surgery</u>

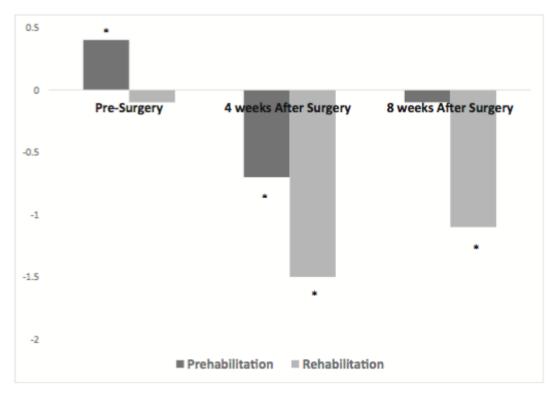


Fig. 1. Unadjusted mean changes in absolute lean mass of colorectal cancer surgery patients following prehabilitation or rehabilitation. *denotes statistically different compared to baseline (p < 0.05).

In conclusion, **trimodal prehabilitation positively modulated the body composition** of colorectal cancer patients such that they did not experience the degree of loss in postoperative lean body mass observed with rehabilitation. Offering a prehabilitation program to colorectal cancer patients awaiting resection is a useful strategy to *mitigate the impact of the surgical stress response on lean tissue* in an **Enhanced Recovery After Surgery** setting.



Next step

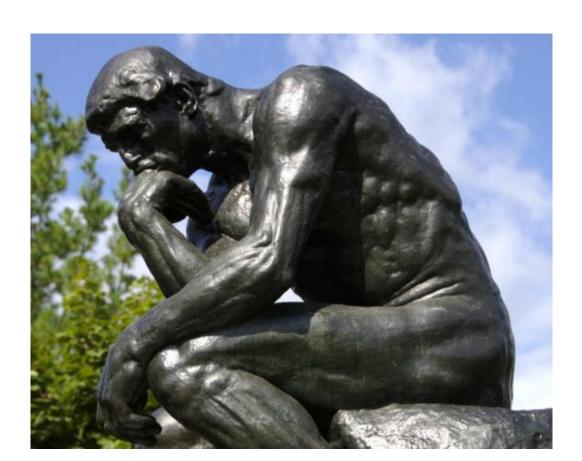
"Phase Angle and bioelectric impedance Vectorial Analysis in major abdominal Surgery: the PhAVAS study"

 Lo scopo dello studio è valutare l'utilità di una metodica sicura, non invasiva, ripetibile e a basso costo, quale la BIVA, per stimare il rischio di morbilità correlata alla chirurgia oncologica addominale maggiore



2. Management of medical therapy

- Steroids
- AZA, MTX, Cyclosporine
- Biologics





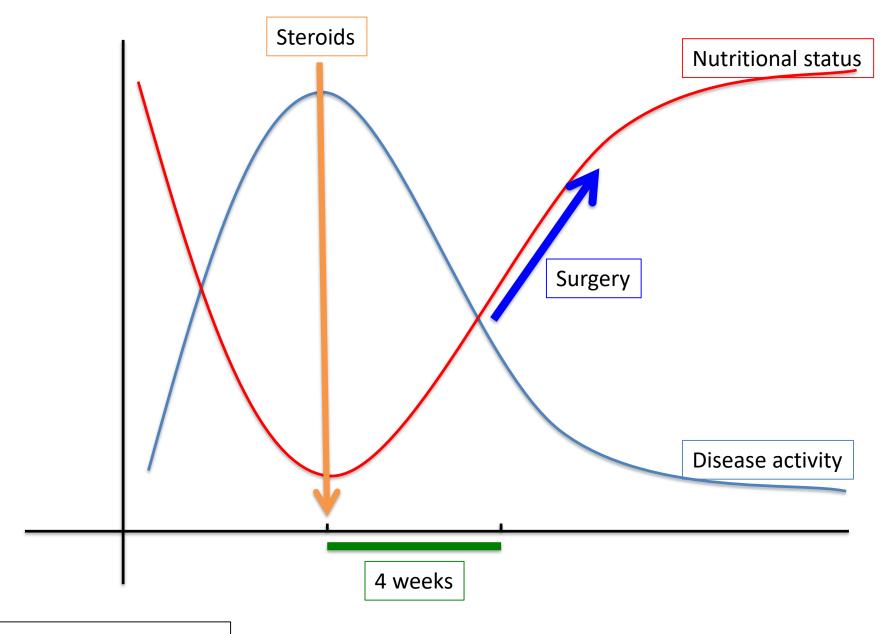


Preoperative Steroid Use and Risk of Postoperative Complications in Patients With Inflammatory Bowel Disease Undergoing Abdominal Surgery

Venkataraman Subramanian DM, MRCP, Sonia Saxena MD, MRCGP, Jin-Yong Kang PhD, FRCP, RCG & Richard C G Pollok PhD, MRCP

The American Journal of Gastroenterology 103, 2373–2381 (2008)

- Full journal articles published after 1965 reporting on postoperative complications in patients with IBD undergoing abdominal surgery, provided they compared patients treated with steroids with those not on steroids
- Seven observational studies involving 1,532 patients met the inclusion criteria for risk of total complications
- Five observational studies involving 1,714 patients met the inclusion criteria for risk of infectious complications
- Pooled analysis showed an increased risk of all postoperative complications (OR 1.41, 95% CI: 1.07–1.87), as well as an increased risk of postoperative infectious complications (OR 1.68, 95% CI: 1.24–2.28) among patients on steroids
- Patients who received higher doses of perioperative oral steroids (>40 mg) had a higher risk of total complications (OR 2.04 (95% CI 1.28–3.26)



Bridge therapy



Systematic review

Systematic review of postoperative complications in patients with inflammatory bowel disease treated with immunomodulators

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V. Subramanian X, R. C. G. Pollok, J.-Y. Kang, D. Kumar
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First published: 19 May 2006 | https://doi.org/10.1002/bjs.5375 | Cited by: 51

- 11 observational studies
- None showed an increased risk of either total or infectious complications associated with immunomodulator use



Impact of Preoperative Immunosuppressive Agents on Postoperative Outcomes in Crohn's Disease

Usama Ahmed Ali; Sean T. Martin; Abhishek D. Rao; Ravi P. Kiran

Diseases of the Colon & Rectum. 57(5):663-674, MAY 2014

- Meta-analyses
- Twenty-one eligible studies (20 retrospective and 1 prospective)
 with 6899 patients were included
- There was no association between the use of thiopurines or combined immunomodulator drugs and postoperative complications

Journal of Crohn's and Colitis, 2018, 1–16 doi:10.1093/ecco-jcc/jjx061 Advance Access publication May 11, 2017 ECCO Guideline/Consensus Paper



ECCO Guideline/Consensus Paper

ECCO-ESCP Consensus on Surgery for Crohn's Disease



3.2.3. ECCO-ESCP Statement 2K

Thiopurines can safely be continued in the perioperative period and beyond [EL2]



Journal of Coloproctology



www.jcol.org.br

Review Article

Impact of anti-TNF agents in postoperative complications in Crohn's disease: a review



Mansur Saab^a, Bárbara Saab^a, Márcia Olandoski^b, Cláudio Saddy Rodrigues Coy^c, Paulo Gustavo Kotze^{a,*}

j coloproctol . 2015;3 5(2):128-136

- As potent immunosuppressants there is an obvious concern if this reduction in the defenses could lead to greater possibilities of surgical and infectious complications in the postoperative period
- 2. There are *controversy on the effects of these agents at tissue level*, in bowel anastomosis healing process
- 3. Data from the literature are conflicting, and retrospective studies of case series showed equally conflicting conclusions

Table 1 – Major studies showing a possible negative impact of the use of biologicals in postoperative complications in CD,

Author	uthor Journal Year Study type		Study type	Number of patients exposed to biologicals	Observations			
Appau et al.	J Gastrointest Surg	2008	Single-center retrospective	60	Higher rates of sepsis, abdominal abscesses, readmissions and anastomotic dehiscence.			
Rizzo et al.	Int J Colorect Dis	2011	Single-center retrospective	54 (Ulcerative colitis included)	Higher rates of infectious complications in univariate analysis			
Kopylov et al.	Inflamm Bowel Dis	2012	Meta-analysis	423	Higher rates of infectious complications not related to the surgical site			
Serradori et al.	Br J Surg	2013	Multicenter retrospective	42	Concomitant use of biologicals with corticosteroids increased infectious complications in multivariate analysis			
Syed et al.	Am J Gastroenterol	2013	Single-center retrospective	150	Higher rates of infections in general and of surgical site infections			
Narula et al.	Alim Pharmacol Ther	2013	Meta-analysis	987 (Ulcerative colitis included)	Higher rates of complications in general and of infectious complications			
El-Hussuna et al.	Dis Colon Rectum	2013	Meta-analysis	Not defined	Higher rates of anastomotic complications in low bias studies			
Yang et al.	Int J Surg	2014	Meta-analysis	Not defined	Higher rates of complications in general and of infectious complications			
Lau et al.	Ann Surg	2014	Single-center prospective	123	Higher rates of complications in general and of infectious complications in patients with detectable serum IFX			

Table 2 – Main studies showing no difference in the rate of postoperative complications in patients with CD using biologicals. Number of patients Observations Author **Journal** Study type Year exposed to biologicals Single-center Higher rates of intra-abdominal Tay et al. Surgery 2003 retrospective septic complications not reported Colombel et al. Single-center Increased risk of complications in Am J Gastroenterol 2004 52 retrospective general or septic complications not found Marchal et al. Alim Pharmacol Ther Single-center Higher rates of complications and 2004 retrospective differences in in-hospital length of stay were not found Kunitake et al. Overall, no differences in rates of J Gastrointest Surg 2008 Single-center 101 retrospective medical and surgical complications. However, a longer mean in-hospital length of stay was found Indar et al. World J Surg Single-center No major complications were 2009 17 retrospective identified Meta-analysis Nasir et al. J Gastrointest Surg 2010 119 No higher rates of complications were found No differences in rates of Inflamm Rowel Dis Multicenter Kotze et al. 2011 19 postoperative complications in retrospective general, anastomotic dehiscence, urinary tract infection and pneumonia

Canedo et al.	Colorectal Dis	2011	Single-center retrospective	65	No differences in pneumonia, surgical site infections, abscesses and anastomotic dehiscence rates
El-Hussuna et al.	Scand J Gastroenterol	2012	Multicenter retrospective	32	No higher rates of postoperative anastomotic complications were observed
Kasparek et al.	Inflamm Bowel Dis	2012	Single-center retrospective	48	There were no major postoperative morbidity in terms of sepsis and anastomotic complications, besides in-hospital length of stay
Mascarenhas et al.	Am J Surg	2012	Retrospective	19	No increase in overall complication rate in a subanalysis of the study
Norgard et al.	Aliment Pharmacol Ther	2013	Multicenter retrospective	214	There were no differences in complications, or higher rates of reoperation, anastomotic dehiscence and bacteremia
Waterman et al.	Gut	2013	Single-center retrospective	195 (Ulcerative colitis e undetermined IBD included)	Higher rates of urinary tract infections and in the surgical site. Time since the last dose of biological agent and surgery did not influence postoperative complications.

Bafford et al.	J Clin Gastroenterol	2013	Single-center retrospective	63	No increased risk of complications identified.
Billioud et al.	J Crohns Colitis	2013	Meta-analysis	977	Increased risk of postoperative infections overall, but the authors could not properly study the influence of concomitant therapies.
Rosenfeld et al.	J Crohns Colitis	2013	Meta-analysis	344	There was no influence on complications.
Krane et al.	Dis Colon Rectum	2013	Single-center retrospective	65	Increased risk of postoperative infections overall, but the authors could not properly study the influence of concomitant therapies.
Myrelid et al.	Br J Surg	2014	Multicenter retrospective	111	There was no difference in anastomotic complications, postoperative complications and general infections.
Papaconstantinou et al.	J Gastrointest Surg	2014	Meta-analysis	1554	The authors did not reach, consistent conclusions

Outcome	Tot. Studi (n° paz.)	Rerospettivi (n° paz.)	Meta-analisi (tot. Paz.)	Prospettici
Effetto negativo	9 (1839)	5 (429)	4 (1410)	
Nessuna differenza	19 (4107)	15 (1113)	4 (2994)	

Bias (+++): studi retrospettivi, molto eterogenei, piccoli gruppi

ANNALS OF SURGERY A MONTHLY REVIEW OF SURGICAL SCIENCE SINCE 1885

Anti-TNF Therapy Is Associated With an Increased Risk of Postoperative Morbidity After Surgery for Ileocolonic Crohn Disease: Results of a Prospective Nationwide Cohort

February 2018 - Volume 267 - Issue 2 - p 221–228

- 592 consecutive patients who underwent surgery for CD in 19 French specialty centers were collected prospectively
- anti-TNF <3 months prior to surgery was identified as an independent risk factor of the overall postoperative morbidity (odds-ratio [OR] =1.99; confidence interval [CI] 95% = 1.17-3.39, P = 0.011)
- Preoperative anti-TNF therapy is associated with a higher risk of morbidity after surgery for ileocolonic CD



Original Article

Systematic Review and Meta-Analysis:



Table 1. Patient and study characteristics

Study, year	Location & time period	Paper/ abstract		Sample size ²	IBD type ¹	Surgery type	Last dose of vedolizumab before surgery	Follow-up period	plications [pre	of postoperative com- ions [preoperative Complications zumab group] [no biologic therapy]			Rate of Postoperative Complications [preoperative anti-TNF]	
					Infectious complications	Overall complications	Infectious Complications	Overall Complications	Infectious Complications	Overall Complications				
Ferrante et al. 2017	Belgium, 2006-2016	Paper	R	VD Z: 34 NB: 71 TNF: 60	100 % UC	Colecto my	Within 16 weeks	30 days	24%	35 %	32 %	56%	26%	48 %
Lightner et al. 2017	USA, 2014–2015	Paper	R	VDZ: 146 NB: 195 TNF: 289	VD Z: UC 32%, CD 66%, IC 2% TNF: UC 25%, CD 75% NB: NA	Major abdom- inal operation		30 days	29%	38 %	9%	14 %	8%	17 %
Schils <i>et al.</i> 2017	Bel gium, 2006–2016	Abstract	R	VD Z: 12 NB: 12 TNF: 12	100% CD	Right hemicolec- tomy with ileocolonic anastomosis	Within 16 weeks	30 days	50%	50%	25%	42%	58%	100%
Shen <i>et al</i> . 2017	International, 2014–2016	Abstract	P	VDZ: 51 NB: 7 TNF: N/A	N/A	Colectomy and bowel resection	N/A	N/A	6%	6%	14 %	14 %	N/A	N∕A
Yamada et al. 2017	USA, 2014–2016	Paper	R	VDZ: 64 NB: 250 TNF: 129	VDZ: UC 37.5%, CD 62.5% NB: UC 51.6%, CD 48.4% TNF: UC 25.5%, CD 74.4%	Major and minor IBD surgery	Within 4 weeks	30 days	3%	23 %	14 %	36%	15 %	31 %

Conclusions: Preoperative vedolizumab treatment in IBD patients does not appear to be associated with an increased risk of postoperative infectious or overall postoperative complications compared to either preoperative anti-TNF therapy or no biologic therapy. Future prospective studies which include perioperative drug level monitoring are needed to confirm these findings.

INFLAMMATORY BOWEL DISEASES®



TABLE 1: Summary of Characteristics of Included Studies

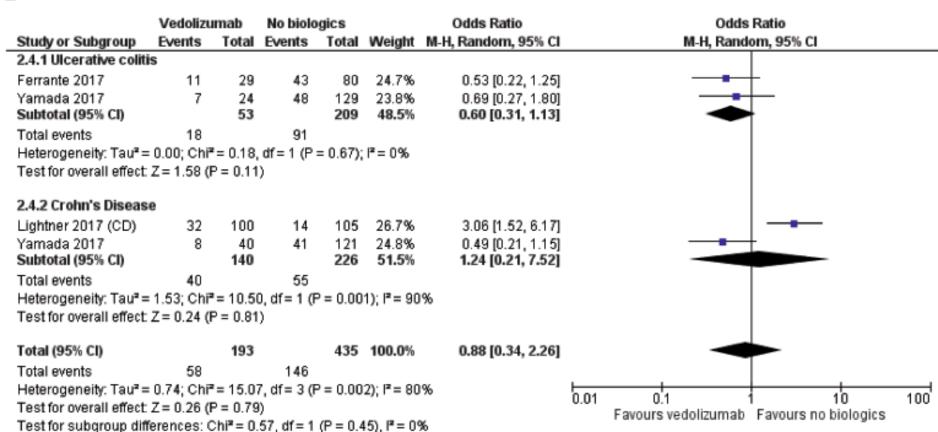
Author, Year [Ref] Country	Study Years	Total Pts	Pts on VDZ	Pts on Anti-TNFs	NB	Pt Cohort	Types of Surgery Underwent	Exposure to VDZ/Anti-TNFs	Definition of Infectious Complications
Ferrante, 2017 ²⁰ Belgium	2006–2016	175	29	66	80	UC only	Colectomy only	VDZ: 16 wk Anti-TNFs: 8 weeks *12-wk data also provided and used in analysis	Gastroenteritis, RTIs, UTIs, catheter-associated infections, PUO, oral candidiasis, mouth ulcers, toxic exanthema, spondylodiscitis, SSIs
Lightner, 2017 (1) ¹⁶ USA	2014–2016	312	100	107	105	CD only	Colorectal and/or SB resection	12 wk	UTIs, pneumonia, central line sepsis, SB obstruction/ileus, SSIs
Lightner, 2017 (2) ¹⁵ USA	2014–2016	150	88	62	Not included	UC only	Subtotal colectomy, ileoanal pouch-anal anastomosis, ileostomy reversal, TPC and end- ileostomy, others	12 wk	Only SSIs included in study
Yamada, 2017 ¹⁸ USA	2015–2016	443	64	129	250	Both UC and CD	SB resection, colonic resection, ileocecectomy, stricturoplasty, proctectomy, total colectomy, J-pouch creation or resection, EUA, ostomy creation, ileostomy takedown, hernia repair	4 wk	Wound infection or dehiscence, anastomotic leak, abscess, sepsis, fistula, RTIs, UTIs, SSIs

Abbreviations: EUA, examination under anaesthesia; NB, no biologics; Pts, patients; PUO, pyrexia of unknown origin; RTI, respiratory tract infection; SB, small bowel; UTI, urinary tract infection.

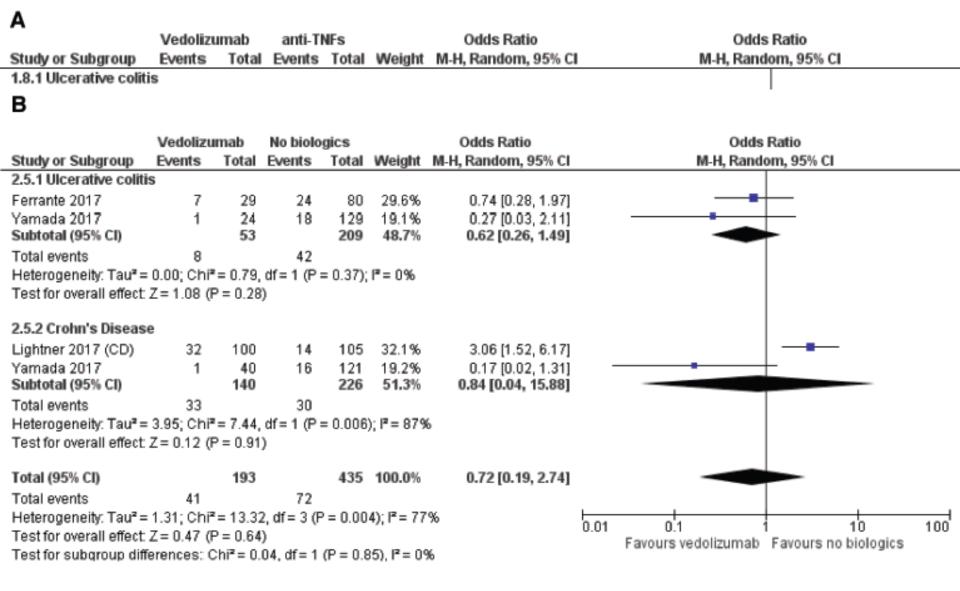
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	Vedolizu	ımab	anti-Tl	NFs	Odds Ratio		Odds Ratio	
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% Cl	
1.7.1 Ulcerative coliti	s							
Ferrante 2017	11	29	33	66	19.9%	0.61 [0.25, 1.49]		
Lightner 2017 (LIC)	30	88	47	62	20 8%	0.17 (0.08 0.34)		
R								

D



Forest plots showing OR of all complications



Forest plots showing OR of infectious complications

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Study or Subgroup

Vedolizumab

Events

В								
		Vedolizumab No biologics			Odds Ratio	Odds Ratio		
	Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	I M-H, Random, 95% CI
- 2	2.8.1 Ulcerative colitis	8						
	Yamada 2017 Subtotal (95% CI)	1	24 24	12	129 129	20.5% 20.5%	0.42 [0.05, 3.42] 0.42 [0.05, 3.42]	
	Total events	1		12				
	Heterogeneity: Not app							
	Test for overall effect: 2	Z = 0.81 (F	P = 0.42)				
	2.8.2 Crohn's Disease	•						
-	Lightner 2017 (CD)	12	100	9	105	58.9%	1.45 [0.58, 3.62]] -
٦	Yamada 2017	1	40	10	121	20.5%	0.28 [0.04, 2.30]	•
	Subtotal (95% CI)		140		226	79.5%	0.84 [0.18, 3.91]	
	Total events	13		19				
	Heterogeneity: Tau ² =	0.70; Chi ²	= 2.04.	df = 1 (P :	= 0.15);	P= 51%		
	Test for overall effect: 2	-	-	-	,			
		,		-				
	Total (95% CI)		164		355	100.0%	0.81 [0.28, 2.32]	
	Total events	14		31				
	Heterogeneity: Tau ² =	0.28; Chi ²	= 2.77.	df = 2 (P :	= 0.25);	I ² = 28%		<u> </u>
	Test for overall effect: 2	-	-		/			0.01 0.1 1 10 100
	Test for subgroup diffe	,			(P = 0.6)	60), I ² = 0°	%	Favours vedolizumab Favours no biologics
						71		

Odds Ratio

Total Events Total Weight M-H, Random, 95% CI

Odds Ratio

M-H, Random, 95% CI

Forest plots showing OR of major postoperative complications

ANNALS OF SURGERY A MONTHLY REVIEW OF SURGICAL SCIENCE SINCE 1885

Higher Surgical Morbidity for Ulcerative Colitis Patients in the Era of Biologics

Abelson, Jonathan S., MD*; Michelassi, Fabrizio, MD*; Mao, Jialin, MD, MS†; Sedrakyan, Art, MD†; Yeo, Heather, MD, MHS*,†

August 2018 - Volume 268 - Issue 2 - p 311-317

- A total of 7070 patients were included for analysis
- On adjusted analysis, patients undergoing surgery after 2005 had higher likelihood of major events (odd s ratio, OR = 1.42; 95% confidence interval, CI = 1.13–1.78), procedural complications (OR = 1.42; 95% CI = 1.20–1.68), and nonroutine discharge (OR = 3.17; 95% CI = 2.79–3.60) during the index admission



Dati preliminari AOU Careggi

Totale interventi per m. di Crohn (1986-2016)= 2002

	1986-2001	2002-2016
Totale interventi	881 (718 pazienti)	1121 (801 pazienti)
Recidive	306 (42,6 %)	390 (48,6%)
Resezioni	554 (77%)	602 (75%)
SXPL	84 (12%)	102 (13%)
Res. + SXPL	80 (11%)	97 (12%)
IASC	16 (2,2%)	46 (5.7%)

Journal of Crohn's and Colitis, 2018, 1–16 doi:10.1093/ecco-jcc/jjx061 Advance Access publication May 11, 2017 ECCO Guideline/Consensus Paper



ECCO Guideline/Consensus Paper

ECCO-ESCP Consensus on Surgery for Crohn's Disease



2.2.2. ECCO-ESCP Statement 1B

Anti-TNF therapy is associated with higher postoperative septic complications after abdominal surgery for CD. The safest period for omission of anti-TNF therapy is unknown [EL2]



Take home messages

- Steroidi fino a 20 mg/die non controidicazioni per anastomosi;
 <u>bridge therapy</u>
- 2. Le tiopurine non rappresentano un fattore di rischio per complicanze intra-operatorie
- 3. Biologici: dati contrastanti in letteratura ...nel dubbio meglio aspettare...se possibile



3. Treatment of abdominal sepsis

Clinics in Colon and Rectal Surgery

Thieme Medical Publishers

Guest Editor Steven D. Wexner M.D.

2007 Nov;20(4):303-8

Preoperative Optimization of Crohn's

Disease

Jonathan E. Efron, M.D.

Table 1 Outcomes of Percutaneous Drainage of Intraabdominal Abscesses

Study	Year	N	Success Rate %
Gutierrez et al ¹⁵	2006	37	100.0
Golfieri et al ¹⁶	2006	87	84.3
Harisinghani et al 17	2003	140	96.0
Gervais et al ¹⁸	2002	32	96.0
Jawahari et al ¹⁹	1998	36	53.0
Sahia et al ¹⁴	1997	24	56.0

- The theoretical benefit in treating intraabdominal abscesses with antibiotics and drainage prior to surgery is to *decrease the inflammatory response in the abdomen thereby facilitating surgery*
- Crohn's patients who develop abscesses may be effectively treated with medical therapy including percutaneous drainage. <u>At least 50% of these patients will not</u> <u>progress to require surgery in the acute setting</u>

Dis Colon Rectum. 2007 Mar;50(3):331-6

Risk factors for intra-abdominal septic complications after a first ileocecal resection for Crohn's disease: a multivariate analysis in 161 consecutive patients.

Alves A1, Panis Y, Bouhnik Y, Pocard M, Vicaut E, Valleur P.

- Multivariate analysis found only four independent factors associated with a higher risk of postoperative intra-abdominal septic complication
- poor nutritional status (odds ratio, 6.23 (1.75-22.52)), *intra-abdominal abscess discovered during surgery (odds ratio, 7.47 (1.5-37.69))*, preoperative steroids use more than three months (odds ratio, 5.95 (1.04-34.1)), and recurrent clinical episode of Crohn's disease (odds ratio (per episode), 1.38 (1.03-1.9))

Journal of Crohn's and Colitis, 2018, 1–16 doi:10.1093/ecco-jcc/jjx061 Advance Access publication May 11, 2017 ECCO Guideline/Consensus Paper



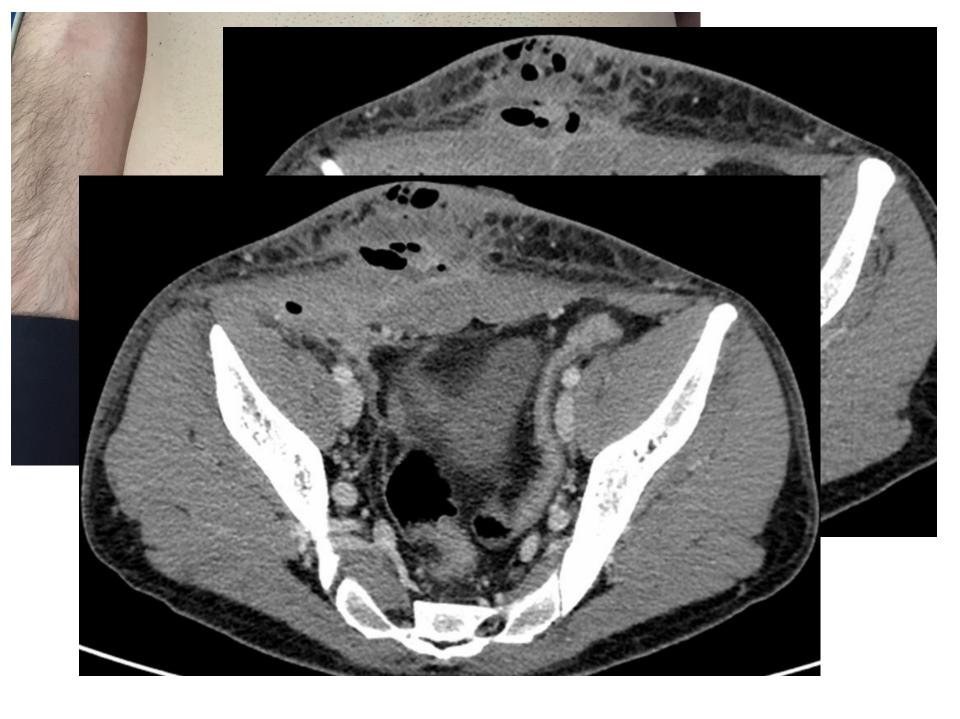
ECCO Guideline/Consensus Paper

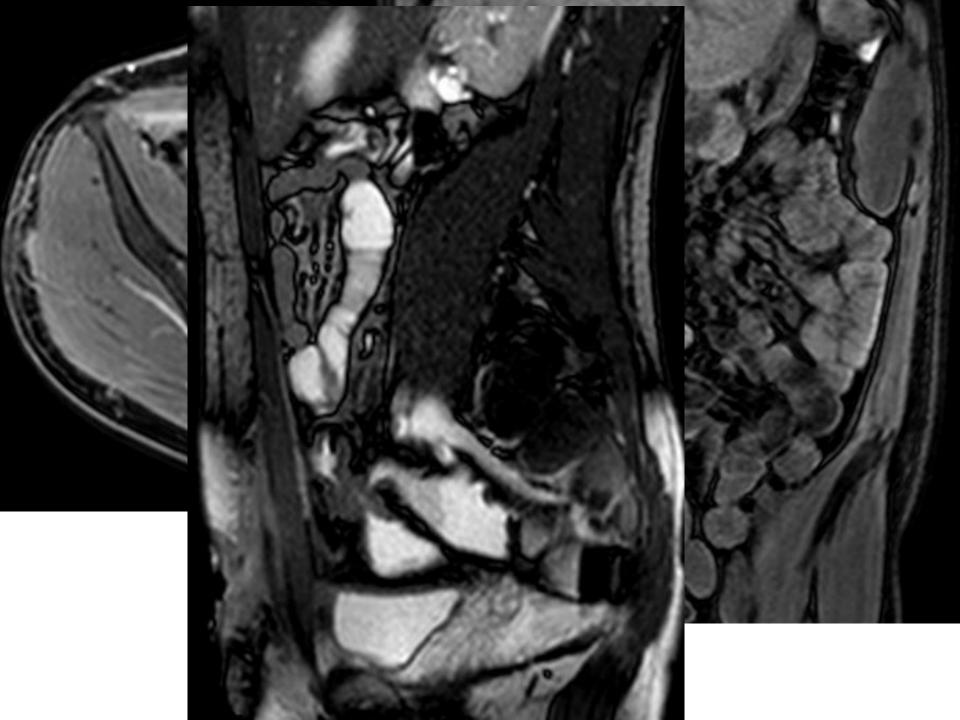
ECCO-ESCP Consensus on Surgery for Crohn's Disease

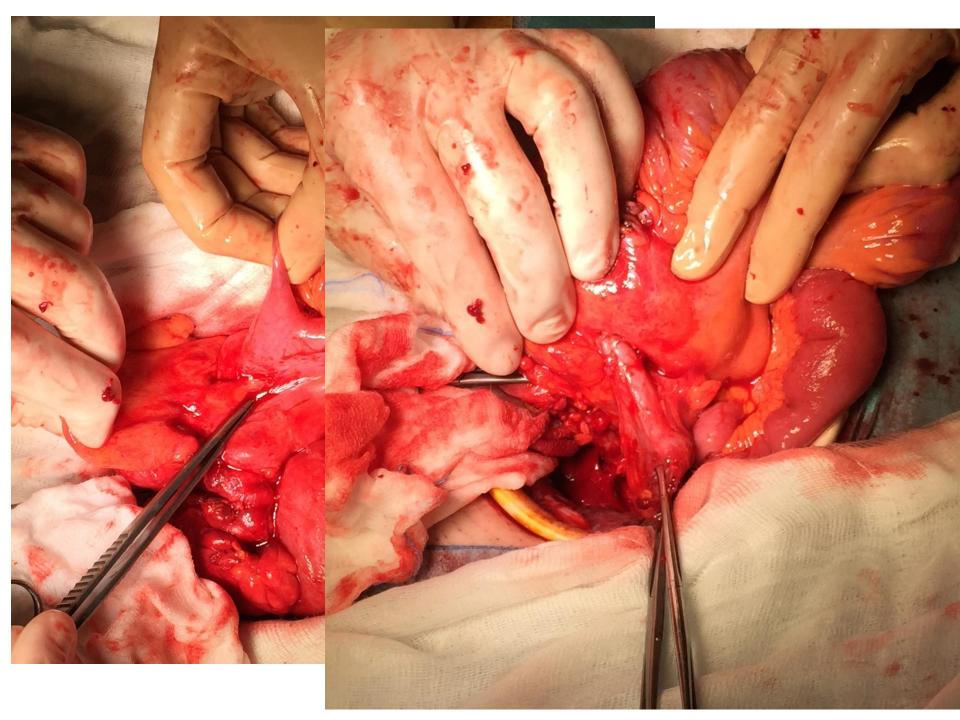


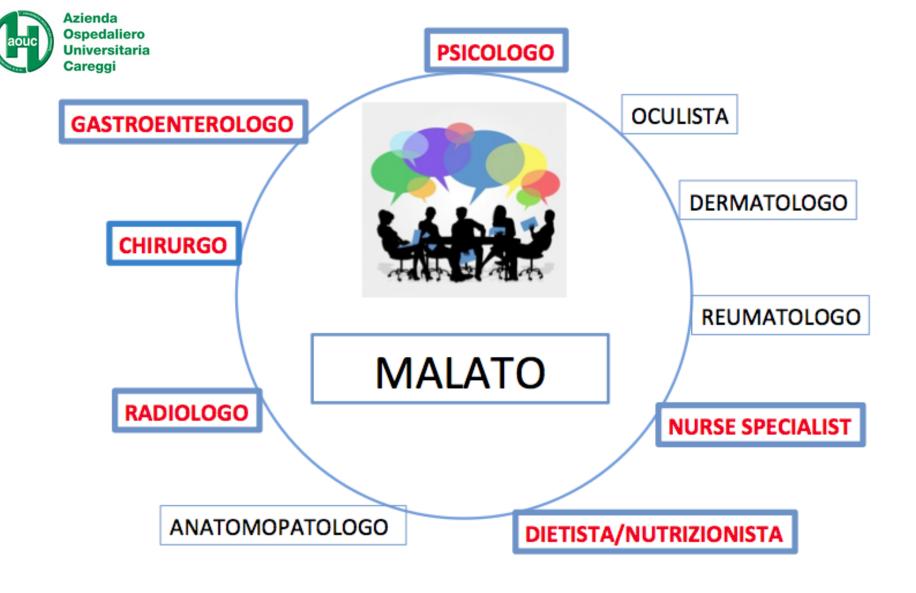
3.2.1. ECCO-ESCP Statement 2H

Intra-abdominal abscess should initially be treated with antibiotics and/or percutaneous drainage. Emergency surgery is only indicated if unresponsive to treatment or percutaneous drainage is not feasible [EL3]









"Bring the patient to the best condition"

PERFECT TEAM

