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ORIGINAL ARTICLE

Perioperative management and early complications after intestinal resection with ileocolonic anastomosis in Crohn's disease: analysis from the PRACTICROHN study

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Postoperative Infectious Complications in Crohn's Disease: Results from the PRACTICROHN study

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PRACTICROHN STUDY

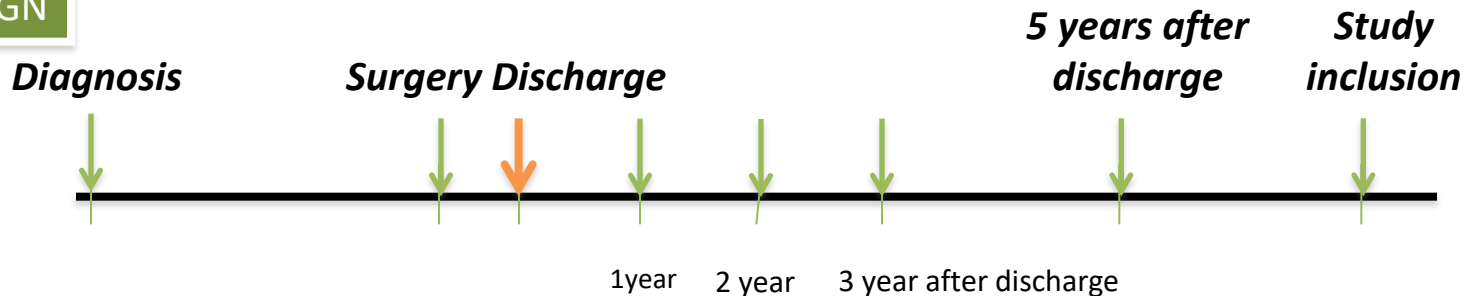
BACKGROUND

Crohn's disease (CD) surgery is related to postoperative complications in 11 to 14% of all cases. Infectious complications (ICs) are the most common. The aim of this study was to describe the prevalence and factors associated with the ICs in a cohort of patients with CD.

MATERIALS AND METHODS

PRACTICROHN was a study that included patients aged ≥ 18 years-old from 26 centers from Spain who underwent CD-related ileocolonic or ileorectal resection with ileocolonic or ileorectal anastomosis between January 2007 and December 2010. Clinical data and treatments, including surgery was retrospectively collected from medical records. Analyzed ICs were: intra-abdominal abscess, wound infection, catheter-related sepsis and extra-abdominal infections

STUDY DESIGN



PRACTICROHN STUDY

DEMOGRAPHIC CHARACTERISTICS	Total sample n=364	Without ICs	ICs	P
Male, n(%)	182 (50)	146 (49)	35 (51)	0.98
Median age at diagnosis (DX) years [RIQ]	28 [22-39]	28 [22 - 38]	30 [24 - 45]	0.07
Median age at surgery (CX), years [IQR]	38 [30-48]	37 [29 - 47]	42 [32 - 51]	0.09
Median time from DX to CX ,years [IQR]	6,00 [1-12]	6 [1 - 12]	5 [1 - 12]	0.62
Active smokers at time of surgery, n (%)	126 (75)	104 (76)	21 (72)	0.87
Number of previous surgeries				
0, n (%)	290 (80)	237 (81)	52 (75)	0.419
>=1, n (%)	74 (20)	57 (19)	17 (25)	
Location at time of resection, n (%)				
L1 (± L4)	193(+6),(55%)	166 (56)	32 (46)	0.196
L2 (± L4)	6 (+0), (1.6%)	4 (1.4)	2 (2.9)	
L3 (± L4)	154(+5), (44%)	124 (42)	35 (51)	
Disease behavior at surgery, n(%)				
B1(+p)	26(+6), (8.9)	24 (8)	8 (11)	0.599
B2(+p)	171(+13),(51)	148 (51)	36 (52)	
B3(+p)	127(+18),(40)	119 (41)	25 (36.23)	
Perianal disease at surgery, n (%)	37(10)	29 (10)	8 (11)	0.857
Perianal disease at any time, n (%)	65 (18)	54 (19)	11 (16)	0.650
Length of resection				
≤50cm	242 (86.43)	192 (86.88)	50 (84.75)	0.833
>50cm	38 (13.57)	29 (13.12)	9 (15.25)	

No differences in ICs were observed related to age, gender, smoking habit, location or length of intestinal resection.

PRACTICROHN STUDY

CAUSE FOR SURGERY	Total sample n=364	Without ICs n=294	ICs n=69	p
Penetrating disease, n(%)	165(45.33)	136 (46.26)	28 (40.58)	0.472
Abscess, n(%)	77(46.67)	63 (46.32)	14 (50.00)	0.883
Mass, n(%)	61(36.97)	50 (36.76)	11 (39.29)	0.971
Fistulae, n(%)	85(51.52)	72 (52.94)	12 (42.86)	0.445
Perforation, n(%)	38(23.03)	27 (19.85)	11 (39.29)	0.048
Stenosing, n(%)	220(60.44)	184 (62.59)	36 (52.17)	0.145
Resistance to treatment, n(%)	132(36.26)	106 (36.05)	26 (37.68)	0.909

ICs were more frequent in patients in which perforation was the reason for surgery (n = 11, 39% vs n = 27, 20% **p = 0.048**).
No differences in ICs were observed related to age, gender, smoking habit, location or length of intestinal resection.

HOSPITALIZATION	General data	Without IC	IC	p
Mean, days (\pm SD)	13.75 (14.10)	11.64 (11.91)	22.65 (18.61)	< 0.001
Median, days [QR]	10 [7-14]	9 [7 - 12]	19 [10 - 30]	

69 patients presented some IC (18%), with a hospitalization median of 19 days IQR (10-30) vs 9 days IQR (7-12) in patients without IC (**p < 0.001**).

PRACTICROHN STUDY

INFECTIOUS COMPLICATIONS DURING HOSPITALIZATION

n=69

Intra-abdominal abscess, n (%)	28 (40.6)
Wound infection, n (%)	33 (47.8)
Infections of the catheter , n (%)	4 (5.8)
Other extra-abdominal infections, n (%)	12 (17.4)

The most frequent IC were wound infection (n = 33, 48%) and abscess (n = 28, 41%); extra-abdominal infections (n = 12, 17%) and infections of the catheter (n = 4, 6%).

TREATMENT RECEIVED AT THE TIME OF SURGERY

	Without ICs n=286	ICs n=67	p
Corticosteroids, n(%)	70 (24.48)	20 (29.85)	0.452
Immunosupresors, n(%)	133 (45.70)	32 (47.76)	0.866
Anti-TNF, n(%)	49 (16.84)	15 (22.39)	0.372

No treatment was correlated with a higher rate of ICs

CONCLUSIONS

- One in five patients who underwent a CD related surgery presented some postoperative Infectious complication.
- Perforation was the most related cause of surgery associated with these complications.
- None of the treatments were associated with the presence of ICs.