

Complications and disease recurrence after primary ileocecal resection in pediatric Crohn's disease

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Background

- 25% pediatric-onset Crohn's disease (CD) patients undergo bowel resection within 5 years of diagnosis¹
- Ileocecal resection most frequent performed procedure²
- Pediatric data are scarce

Aim

- To investigate the complication and disease recurrence rate after primary ileocecal resection in pediatric CD
- To identify predictors for complications and disease recurrence

Methods

Retrospective cohort analysis of all children (< 18 years) that underwent primary ileocecal resection for CD (Jan 1990 – Jan 2015).

Short & long term outcomes:

- Severe complications (≤30 days)*
- clinical recurrence†
- surgical recurrence‡

* Clavien-Dindo classification ≥III; † any symptomatic or endoscopic asymptomatic intestinal recurrence (Rutgeerts score ≥i2) requiring medical treatment or a treatment intensification; ‡ requiring new resection or strictureplasty for active inflammation or (anastomotic) strictures

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Patient characteristics (n=122)

Age (median, IQR)	15.5 (14 - 16)
Male (n, %)	63 (56%)
Disease location (n, %)*	
Terminal ileum (L1)	69 (57%)
Ileocolic (L3)	53 (43%)
Upper GI (L4)	70 (57%)
perianal disease	
Disease behavior (n, %) [†]	
Non-strict, non-pen(B1)	26 (21%)
Strictureing (B2)	50 (41%)
Penetrating (B3)	14 (12%)
Strictureing & penetrating (B2B3)	32 (26%)

* According to the Paris criteria

Complications

Severe complications (n, %)	12 (10%)
Anastomotic leakage (n, %)	8 (6%)

Predictors (severe complications)

	OR (95%CI)	p value
Ileocolonic disease	4.6 (1.2 – 18.2)	0.029
Emergency surgery	5.7 (1.2 – 26.9)	0.027
Positive resection margins	18.4	0.003

Conclusion

- Ileocecal resection is an effective treatment for pediatric CD
- Be alert to the high severe postoperative complications rate in pediatric CD
- Postoperative maintenance therapy is a protective factor for disease recurrence

Clinical recurrence

	1 year	5 years	10 years
	19%	49%	71%
Predictors			
	OR (95%CI)	p value	
Gender: male	0.49 (0.26 – 0.91)	0.023	
Maintenance therapy*	0.3 (0.1 – 0.6)	0.001	

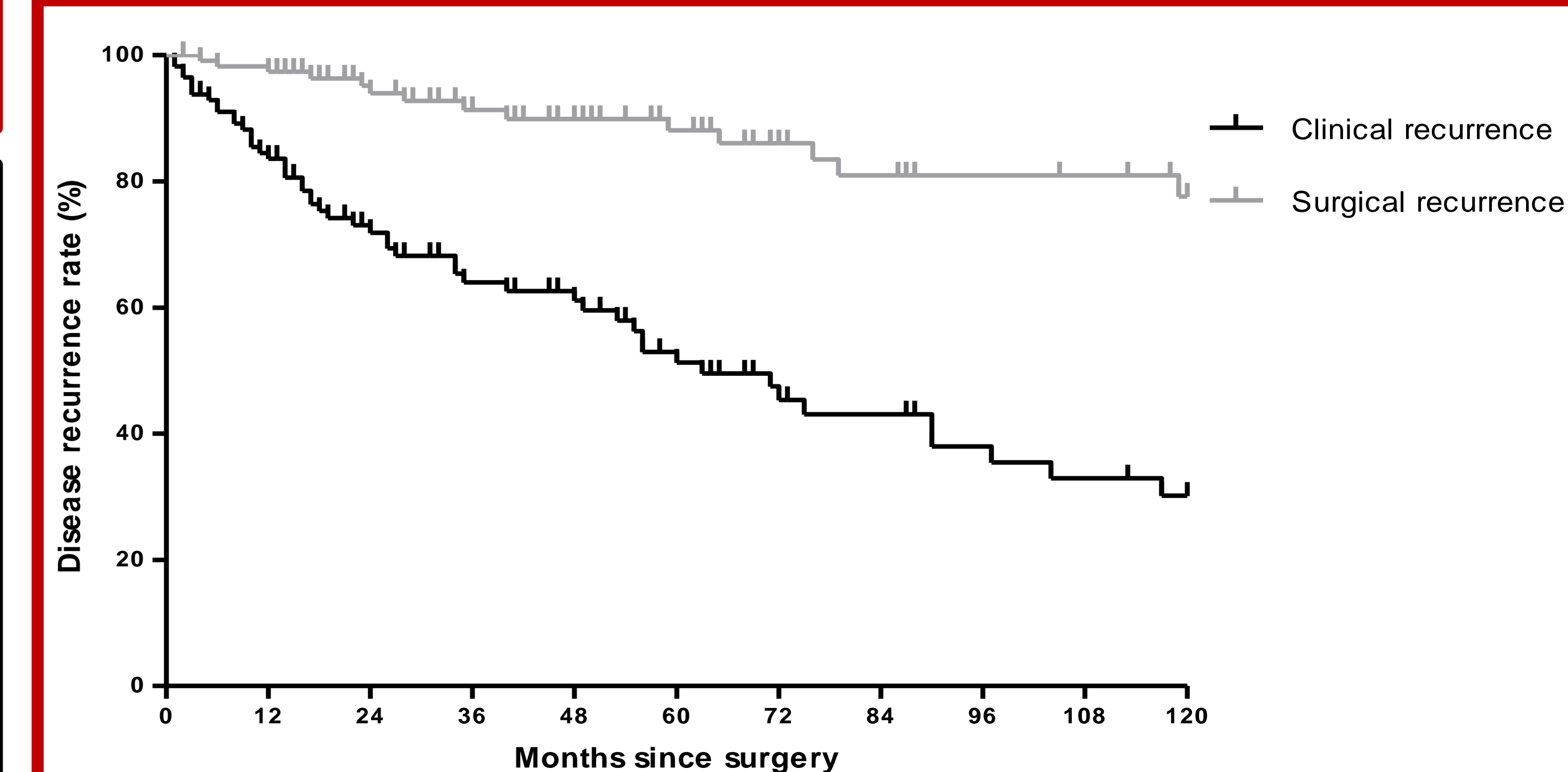
*mesalazines, thiopurines, methotrexate, or anti-TNF agents started within 3 months after surgery

Surgical recurrence

	1 year	5 years	10 years
	2%	12%	22%
Predictors			
	OR (95%CI)	p value	
Extra-ileocecal disease	0.3 (0.1 – 0.8)	0.022	
Maintenance therapy*	0.4 (0.1 – 0.9)	0.036	
Postive resection margin	9.5 (1.2 – 74.1)	0.031	

*mesalazines, thiopurines, methotrexate, or anti-TNF agents started within 3 months after surgery

Survival



Abbreviations: CD: Crohn's disease; IQR: inter quartile range; Jan: January; Non-strict: non-stricturing; non-pen: non-penetrating