Balancing Oncologic Control and Quality of Life: Patient Preferences in Post-Excision Treatment of Intermediate-Risk Early Rectal Cancer

Anna Y Wang MD[1], Olivia Koufos BSc[2], Sofia Addab MSc[2], Juan-Manuel Pueyo BSc[2], Abdullah Alshammari MD[1], Frédéric Grou-Boileau MD, MSc[1], Anne M Olivier BSc[1,3], Sender Liberman MD[1,3], Lawrence Lee MD, PhD[1,3]

McGill Colon and Rectal Surgery

The Steinberg-Bernstein Centre for Minimally Invasive Surgery at McGill University

INTRODUCTION

- Following local excision of early rectal cancer (pT1/2), patients with **intermediate-risk features** are typically recommended for **total mesorectal excision (TME)**
- **TME:**
  - Provides best oncologic control
  - Associated with perioperative morbidity and worse long-term functional outcomes
- **Organ-Preserving Strategies → Chemoradiation and Surveillance Only:**
  - Less treatment-related morbidity
  - Higher local recurrence risk
- Patients and clinicians may prioritize outcomes differently
- Better understanding of patient preferences may reduce decision discordance, which can lead to regret, dissatisfaction, and poor quality of life.

OBJECTIVE

To evaluate how patients balance oncologic control with functional outcomes and quality of life

METHODS

- Ex-ante, cross-sectional, questionnaire-based study
  Single, university-affiliated, colorectal-referral center
- August 2025 – January 2026
- Ambulatory patients seeking colorectal evaluation for benign conditions
- Questionnaire includes:
  - Threshold Task → Hypothetical Clinical Scenario
    - Recurrence risk tolerance
    - Functional outcome/ bowel dysfunction tolerance
  - Demographic Survey

CLINICAL SCENARIO

- Following local excision of early rectal cancer → pathology demonstrates intermediate-risk features
- Participants asked to choose between:
  - Completion TME
  - Adjuvant Chemoradiation
  - Surveillance Only

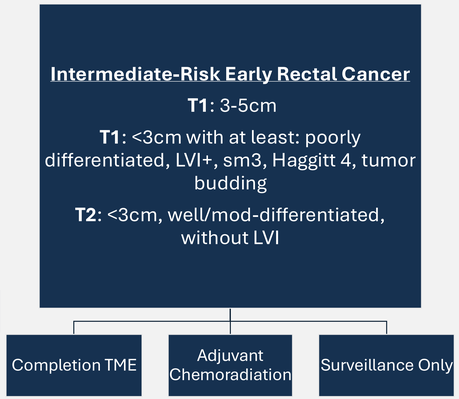

Table 1. Baseline characteristics stratified by initial choice of treatment.

Initial Choice of Surgery	Completion TME n = 33 (27.5%)	Adjuvant Chemoradiation n = 51 (42.5%)	Surveillance Only n = 36 (30.0%)
Mean Age, years (SD)	48.7 (15.3)	51.8 (19.6)	54.1 (19.6)
Female Sex, n (%)	17 (51.5%)	20 (39.2%)	11 (30.6%)
Race, n (%)			
Caucasian	22 (66.7%)	18 (35.3%)	14 (40.0%)
East/Southeast Asian	1 (3.0%)	14 (27.5%)	6 (17.1%)
South Asian	1 (3.0%)	2 (3.9%)	1 (2.9%)
Middle Eastern	6 (18.2%)	1 (2.0%)	3 (8.6%)
Black	1 (3.0%)	0 (0.0%)	3 (8.6%)
Latin American/ Hispanic	1 (3.0%)	8 (15.7%)	1 (2.9%)
Other	1 (3.0%)	8 (15.7%)	7 (20.0%)
Reason for Visit, n (%)			
Hemorrhoids/ Rectal Bleeding	14 (46.7%)	18 (35.3%)	14 (40.0%)
Fistula-in-Ano/ Perianal Abscess	3 (10.0%)	14 (27.5%)	6 (17.1%)
Polyp/ Screening	5 (16.7%)	8 (15.7%)	1 (2.9%)
Fissure	2 (6.7%)	2 (3.9%)	1 (2.9%)
Diverticular Disease	1 (3.3%)	1 (2.0%)	3 (8.6%)
IBD	1 (3.3%)	0 (0.0%)	3 (8.6%)
Other	4 (13.3%)	8 (15.7%)	7 (20.0%)
Highest Level of Education, n (%)			
High school or lower	3 (9.1%)	10 (19.6%)	8 (22.2%)
College	10 (30.3%)	11 (21.6%)	8 (22.2%)
University Degree	14 (42.4%)	12 (23.5%)	11 (30.6%)
Graduate Degree	6 (18.2%)	18 (35.3%)	9 (25.0%)
Working Status, n (%)			
Employed	25 (75.8%)	28 (54.9%)	20 (55.6%)
Unemployed/ Looking	0 (0.0%)	1 (2.0%)	2 (5.6%)
Homemaker	0 (0.0%)	1 (2.0%)	1 (2.8%)
Retired	6 (18.2%)	16 (31.4%)	10 (27.8%)
Student	2 (6.1%)	5 (9.8%)	2 (5.6%)
Disabled	0 (0.0%)	0 (0.0%)	1 (2.8%)
Sexually Active	25 (75.8%)	30 (58.8%)	24 (66.7%)
Activities of Daily Living (ADLs)			
Independent	33 (100.0%)	50 (98.0%)	34 (94.4%)
Some Assistance	0 (0.0%)	0 (0.0%)	2 (5.6%)
Dependent	0 (0.0%)	1 (2.0%)	0 (0.0%)
Health Literacy (BRIEF**), n (%)			
Limited (Score 4-12)	0 (0.0%)	4 (7.8%)	3 (8.3%)
Marginal (Score 14-16)	2 (6.1%)	4 (7.8%)	2 (5.6%)
Adequate (Score 17-20)	31 (93.9%)	43 (84.3%)	31 (86.1%)
LARS Score*** Category			
No LARS (0-20)	23 (69.7%)	33 (64.7%)	30 (83.3%)
Minor LARS (21-29)	7 (21.2%)	12 (23.5%)	3 (8.3%)
Major LARS (30-42)	3 (9.1%)	6 (11.8%)	3 (8.3%)

* Statistically significant at $p < 0.05$.
** Health literacy was assessed using the BRIEF Health Literacy Screening Tool. Scores range from 4 to 20 and are categorized as: Limited (4–12), Marginal (13–16), and Adequate (17–20).
*** Low Anterior Resection Syndrome (LARS) Score used to assess baseline bowel dysfunction and categorized as: No LARS (0-20), Mintor LARS (21-29), Major LARS (30-42).

Table 2. Patient preferences for bowel dysfunction symptoms stratified by initial choice of treatment.

	Completion TME n = 33 (27.5%)	Adjuvant Chemoradiation n = 51 (42.5%)	Surveillance Only n = 36 (30.0%)	p-value
Mean acceptable bowel movements/day to have the best cancer outcomes, BMs (SD)	6.3 (4.9)	4.1 (2.0)	3.7 (3.3)	0.004*
Mean acceptable episodes of fecal incontinence/day to have the best cancer outcomes, episodes (SD)	1.7 (3.9)	1.1 (1.6)	0.8 (1.9)	0.341
Mean acceptable episodes of gas incontinence/day to have the best cancer outcomes, episodes (SD)	8.8 (6.4)	7.0 (6.4)	4.7 (5.5)	0.025*
Acceptable frequency of clustering symptoms to have the best cancer outcomes, n (%)				0.035*
With every bowel movement	12 (37.5%)	7 (14.3%)	3 (8.3%)	
Daily	8 (25.0%)	19 (38.8%)	10 (27.8%)	
Few times per week	8 (25.0%)	18 (36.7%)	15 (41.7%)	
Rarely/Never	4 (12.5%)	5 (10.2%)	8 (22.2%)	
Acceptable changes in daily activities due to bowel dysfunction to have the best cancer outcomes, n (%)				0.094
Not willing to experience any changes to activities	7 (21.9%)	13 (26.5%)	16 (44.4%)	
Willing to sacrifice long activities (>3 hours)	17 (53.1%)	21 (42.9%)	11 (30.6%)	
Willing to sacrifice short activities between 1-2 hours	2 (6.2%)	10 (20.4%)	7 (19.4%)	
Willing to forego all normal daily activities	6 (18.8%)	5 (10.2%)	2 (5.6%)	

*Statistically significant at $p < 0.05$

RESULTS

- A total of **120 participants** were recruited:
  28% TME, 42% adjuvant chemoradiation, 30% surveillance only
- Functional Outcome Tolerance:
  - Patients selecting TME:
    - Accepted *more* bowel movements per day ($p = 0.004$)
    - Accepted *more* gas incontinence per day ($p=0.025$)
    - Were *more* willing to accept clustering with every BM ($p=0.035$)
  - Tolerance of fecal incontinence was low across all three cohorts
- Risk Threshold to Switch to TME:
  - Patients selecting surveillance tolerated significantly higher risk of recurrence before switching to TME compared to patients selecting adjuvant chemoradiation (35.8±12.4% vs 18.1±10.6%; $p<0.001$)

CONCLUSIONS

- Patients vary widely in their willingness to trade functional outcomes for oncologic control.
- A subset of patients prioritized organ preservation, accepting substantially higher recurrence risks.
- These findings suggest decisions regarding completion TME are highly preference-sensitive and should incorporate individual priorities when counseling patients.

Contact Information:
Anna Yu Wang
McGill University
Email: anna.wang2@mail.mcgil.ca

[1] Department of Surgery, McGill University Health Centre, Montreal, QC, Canada
[2] Faculty of Medicine. McGill University, Montreal, QC, Canada
[3] Steinberg-Bernstein Centre for Minimally Invasive Surgery and Innovation, McGill University Health Centre, Montreal, QC, Canada

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