

Operative versus Nonoperative Treatment for Stage 0 Rectal Cancer following Chemoradiation Therapy

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INTRODUCTION

- In locally advanced rectal cancer, preoperative chemoradiotherapy (pCRT) is the standard care;
- Response to pCRT is highly variable, with only 8-20% of the patients exhibiting a complete pathological response;

AIM

- We aimed to compare 2 groups of patients submitted to pCRT: one group without total clinical response therefore needing surgery (ypT0), and another with total clinical response, that did not need surgery (ycT0).

METHOD

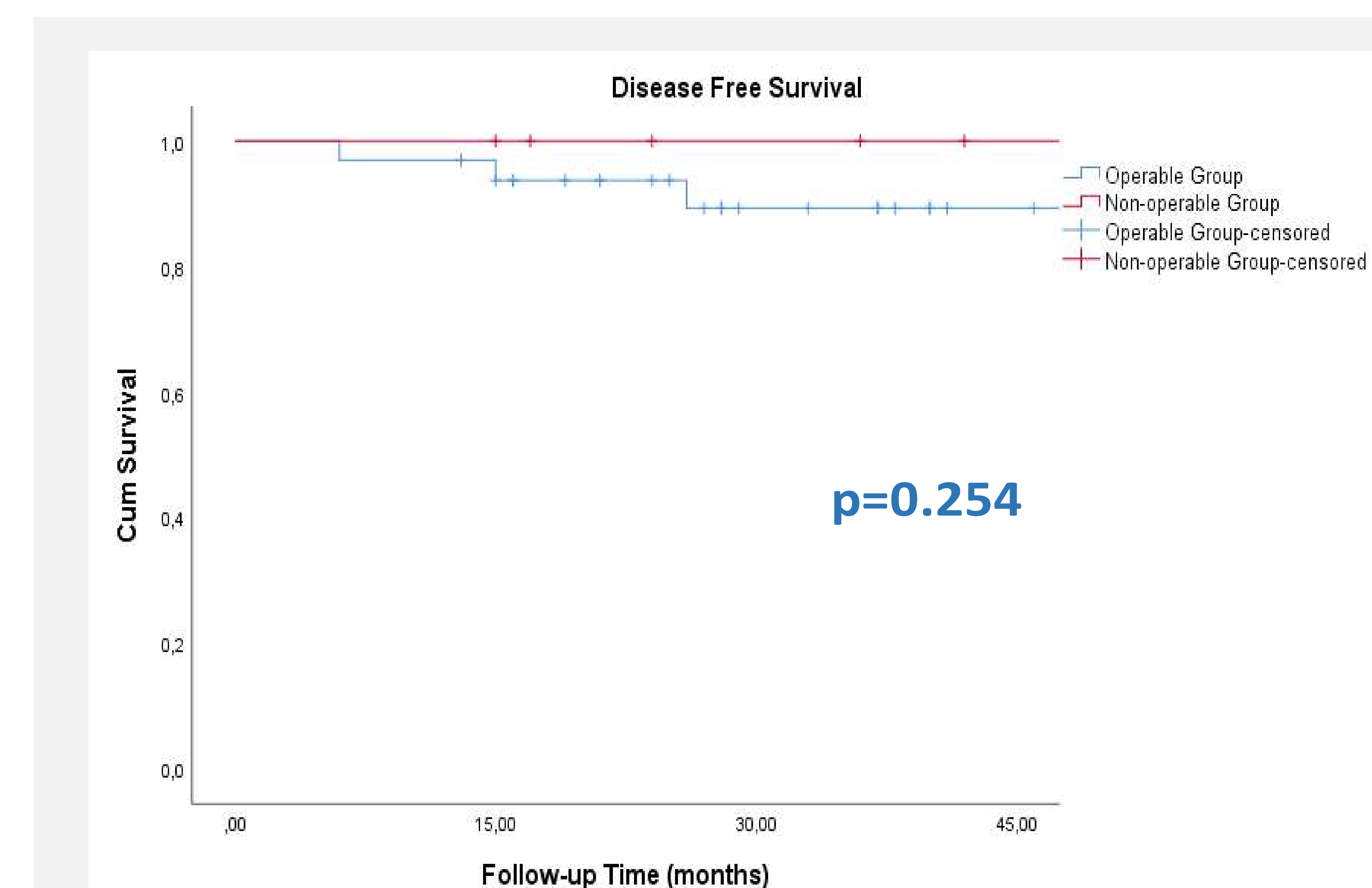
- Retrospective study; Based on RT Department electronic health records;
- Previously approved by the institutional ethical review board;
- Rectal adenocarcinoma considered resectable were treated by pCRT: January 2013 and December 2019 (n=46).
- Complete and incomplete clinical responses were defined based on pelvic resonance magnetic, thoracic and abdominal tomography and endoscopic findings;
- Patients with incomplete clinical response were submitted to surgery resulting in stage ypT0. This group was compared to patients with complete clinical response with pCRT alone (ycT0);
- Statistical analysis was performed using X², Mann-Whitney U test and Kaplan-Meier curves;
- The IBM SPSS v.26 software was used for statistical analysis.

RESULTS

	Non-Operative N= 13 N(%)	Operative N= 33 N(%)	P*
Sex			0.806
Male	8 (61.5)	19 (57.6)	
Female	5 (38.5)	14 (42.4)	
Mean age, years (Mean)	60.0	61.73	0.739
Follow-up, months (Mean)	45.1	37.5	0.486
cT			0.884
2	2 (15.4)	4 (12.1)	
3	10 (76.9)	25 (75.8)	
4	1 (7.7)	4 (12.1)	
cN			0.417
+	7 (53.8)	22 (66.7)	
-	6 (46.2)	11 (33.3)	
cTNM Stage			0.181
I	1 (7.7)	0 (0.0)	
II	5 (38.5)	9 (27.3)	
III	7 (53.8)	24 (72.7)	
Rectum localization			0.524
Lower	7 (53.82)	12 (36.4)	
Middle	5 (38.5)	16 (48.5)	
Upper	1 (7.7)	5 (15.2)	

	Non-Operative N= 13 N(%)	Operative N= 33 N(%)	P*
RT Total dose			NA
50 Gy	12 (92.3)	33 (100)	
50.4 Gy	1 (7.7)	0 (0.0)	
CT medication			NA
Capecitabine	13 (100)	32 (97.0)	
Other	0 (0.0)	1 (3.0)	
Surgery			NA
AAP	-	6 (18.2)	
RAR	-	26 (78.8)	
Local excision	-	1 (3.0)	
DFS, months (Mean)	44.4	34.6	0.493

Group	No. Patients (%)
Non-operable	13 (28.3)
Operable	33 (71.7)
TOTAL	46 (100)



CONCLUSIONS

Stage 0 rectal cancer disease is associated with excellent long-term results regardless of treatment strategy.

Appropriate identification of stage 0 disease after pCRT for rectal cancer is mandatory to identify a subset of patients that may be safely managed by strict follow-up and observation alone.

REFERENCES

- Halperin E, Wazer D, Perez C, Brady L. Perez and Brady's principles and practice of radiation oncology. seventh edition ed. Kluwer W, editor. Philadelphia: Library of Congress Cataloging-in-Publication Data; 2019. 4613-79 p.
- Feeney G, Sehgal R, Sheehan M, Hogan A, Regan M, Joyce M, et al. Neoadjuvant radiotherapy for rectal cancer management. World J Gastroenterol. 2019;25(33):4850-69.
- Dayde D, Tanaka I, Jain R, Tai MC, Taguchi A. Predictive and Prognostic Molecular Biomarkers for Response to Neoadjuvant Chemoradiation in Rectal Cancer. Int J Mol Sci. 2017;18(3).
- Ryan R, Gibbons D, Hyland JM, Treanor D, White A, Mulcahy HE, et al. Pathological response following long-course neoadjuvant chemoradiotherapy for locally advanced rectal cancer. Histopathology. 2005;47(2):141-6.

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