DOI: 10.4274/tjcd.galenos.2023.2023-11-4
Turk J Colorectal Dis 2023;33:135-136

LETTER TO THE EDITOR

Comment on "The Impact of Body Mass Index on Oncological Outcomes of Locally Advanced Rectal Cancer: A Comparative Study in a High Obesity Rate Country"

Serkan Sucu, Salih N. Karahan, Ahmet Rencüzoğulları

Koç University Faculty of Medicine, Department of General Surgery, İstanbul, Turkey

Keywords: Body mass index, oncology, rectal cancer

Dear Editor,

The manuscript titled "The Impact of Body Mass Index on Oncological Outcomes of Locally Advanced Rectal Cancer: A Comparative Study in a High Obesity Rate Country" delves into a vital area of colorectal cancer (CRC) research. It focuses on a demographic that has previously been underrepresented in such studies.[1] In the context of a global obesity epidemic, it is increasingly common for patients with obesity to present with locally advanced rectal cancer (LARC). We commend the authors for undertaking this clinically critical study. However, several aspects of the study warrant correction and/or additional clarification.

While the introduction effectively addresses obesity as a risk factor for CRC, it lacks a clear rationale for conducting this specific study, particularly in terms of the prognostic significance of obesity. Establishing a well-defined context would more effectively bridge the introduction and the study's results. This study aims to assess the impact of body mass index (BMI) on the prognosis of rectal cancer by employing a cut-off value of 30. However, this binary classification of BMI into merely two broad groups-overlooking the prognostic implications of underweight and possibly malnourished statuses-could be seen as a limitation.[2] Adopting the standardized World Health Organization classification of body weight, which considers underweight, normal weight, pre-obesity, and obesity categories, would align this study with others in the literature and provide a more comprehensive understanding of BMI's impact on the study outcomes.[3]

One of the key findings of this study suggests that obese patients are more responsive to neoadjuvant therapy and exhibit improved disease-free survival. However, this finding conflicts with multiple studies in the existing literature, which report similar or worse chemotherapy responses in obese CRC patients.[4-6] Given the surgical complexities encountered in patients with high BMI, it is essential to furnish detailed information regarding the integrity of the mesorectum, analyze the outcomes of laparoscopic versus open methods, examine local recurrence statistics, and clarify the prevalence of lateral versus distal margin positivity, all of which remain ambiguously addressed.

Furthermore, rather than relying on univariate analysis to compare patients with a BMI ≥30 to those with a BMI <30, it would be more informative to match the two groups based on critical variables such as patient characteristics, comorbidities, disease stage, carcinoembryonic antigen levels, etc. Alternatively, conducting a multivariate analysis that accounts for all patient- and disease-related variables would more accurately demonstrate BMI's independent and realistic effects on study outcomes, as highlighted in

Address for Correspondence: Ahmet Rencüzoğulları, MD, Koç University Faculty of Medicine, Department of General Surgery, İstanbul, Turkey
E-mail: arencuzogullari@ku.edu.tr **ORCID ID:** orcid.org/0000-0002-5993-9536
Received: 29.11.2023 **Accepted:** 03.12.2023

referenced studies.[7,8] Additionally, the tables in the current study would benefit from including percentage values alongside the raw data to enhance comprehensibility and facilitate comparisons between different groups. It is also advisable to include the standard deviation for the mean number of lymph nodes retrieved.

The risk of an anastomotic leak increases as the level of anastomosis becomes more distal.[9] For this reason, creating a diverting ostomy in surgeries for distal rectal tumors, such as intersphincteric resection, is considered safer. This study characterizes ostomies as postoperative events that require further clarification. It remains unclear whether these ostomies are created for protective reasons or in response to an anastomotic leak. Furthermore, clinical interpretation of the data on surgical site infection rates and incisional hernia appears infeasible without information regarding the proportion of surgeries utilizing laparoscopic techniques.

In the current study conducted by Al-Masri et al.[1], patients with LARC at stage II T3/4, node-negative, or stage III node-positive, who underwent neoadjuvant chemoradiotherapy followed by total mesorectal excision, were analyzed. Notably, the authors report that all patients completed their adjuvant therapy. Considering the data on adherence to intended postoperative chemotherapy, which varies between 43% and 80%, readers would be interested in information about the severity of postoperative complications, toxic effects of perioperative chemotherapy, disease progression, and patient refusal, if applicable.[10,11]

In conclusion, addressing and correcting the abovementioned issues is crucial for drawing more robust conclusions from this study. Controlling for confounding variables through appropriate statistical analysis and providing additional essential information will enhance the validity and reliability of the study's findings.

Ethics

Peer-review: Internally peer-reviewed.

Authorship Contributions

Analysis or Interpretation: A.R., Literature Search: S.S., S.N.K., A.R., Writing: S.S., A.R.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

References

1. Al-Masri M, Mureb A, Aljalabneh B. The Impact of Body Mass Index on the Oncological Outcomes of Locally Advanced Rectal Cancer: A Comparative Study in a Country with High Obesity Rates. Turk J Colorectal Dis 2023;33:36-42.
2. Doleman B, Mills KT, Lim S, Zelhart MD, Gagliardi G. Body mass index and colorectal cancer prognosis: a systematic review and meta-analysis. Tech Coloproctol 2016;20:517-535.
3. Obesity: preventing and managing the global epidemic. Report of a WHO consultation. World Health Organ Tech Rep Ser 2000;894:i-xii, 1-253.
4. Bao QR, Crimì F, Valotto G, Chiminazzo V, Bergamo F, Prete AA, Galuppo S, El Khouzai B, Quaia E, Pucciarelli S, Urso EDL. Obesity may not be related to pathologic response in locally advanced rectal cancer following neoadjuvant chemoradiotherapy. Front Oncol 2022;12:994444.
5. Anderson BJ, Wahlquist AE, Hill EG, Marshall DT, Kimchi ET, Staveley O'Carroll KF, Camp ER. The impact of metabolic syndrome on outcome and response to neoadjuvant chemoradiation in locally advanced rectal cancer patients. Int J Surg Lond Engl 2016;33(Pt A):8-12.
6. Park IJ, You YN, Skibber JM, Rodriguez-Bigas MA, Das P, Eng C, Kopetz S, Wolff RA, Crane CH, Krishnan S, Minsky B, Hu CY, Nguyen S, Chang GJ. Oncologic and Functional Hazards of Obesity Among Patients With Locally Advanced Rectal Cancer Following Neoadjuvant Chemoradiation Therapy. Am J Clin Oncol 2017;40:277-282.
7. Zhang Y, Yang X, Zhuang Z, Wei M, Meng W, Deng X, Wang Z. The effect of BMI on long-term outcome in patients with rectal cancer and establishment of a nomogram prediction model. BMC Gastroenterol 2023;23:5.
8. Sun Y, Xu Z, Lin H, Lu X, Huang Y, Huang S, Wang X, Chi P. Impact of body mass index on treatment outcome of neoadjuvant chemoradiotherapy in locally advanced rectal cancer. Eur J Surg Oncol 2017;43:1828-1834.
9. Ingwersen EW, van der Beek PJK, Dekker JWT, van Dieren S, Daams F. One Decade of Declining Use of Defunctioning Stomas After Rectal Cancer Surgery in the Netherlands: Are We on the Right Track? Dis Colon Rectum 2023;66:1003-1011.
10. Bosset JF, Collette L, Calais G, Mineur L, Maingon P, Radosevic-Jelic L, Daban A, Bardet E, Beny A, Ollier JC; EORTC Radiotherapy Group Trial 22921. Chemotherapy with preoperative radiotherapy in rectal cancer. N Engl J Med 2006;355:1114-1123.
11. Hamaguchi T, Shirao K, Moriya Y, Yoshida S, Kodaira S, Ohashi Y; NSAS-CC Group. Final results of randomized trials by the National Surgical Adjuvant Study of Colorectal Cancer (NSAS-CC). Cancer Chemother Pharmacol 2011;67:587-596.