



AB040. SOH23ABS_224. Oncological outcomes in total neoadjuvant chemotherapy comparative to standard neoadjuvant therapy in rectal cancer

Anya Nolan, Meghan Choy, Lauren O'Connell, Mark Regan, Myles Joyce, Babak Meshkat, Aisling Hogan, Emmeline Nugent

Department of Surgery, University Hospital Galway, Galway, Ireland

Background: Total neoadjuvant therapy (TNT) is a new therapeutic strategy for locally advanced rectal cancer, whereby systemic neoadjuvant chemotherapy and concurrent chemoradiotherapy are delivered preoperatively. This may increase pathological downstaging and eradication of micro-metastases. There is little data on medium-term survival outcomes of TNT. This study aimed to determine differences in rates of local recurrence, disease-free and overall survival between patients receiving TNT *vs.* standard neoadjuvant chemoradiotherapy (nCRT).

Methods: An institutional colorectal oncology database was interrogated from inception [2009] to November 2022. Inclusion criteria comprised patients with a histologically confirmed rectal cancer diagnosis who received TNT or standard nCRT. Exclusion criteria comprised patients with distant metastases at presentation, those treated with palliative intent and those with a non-colorectal primary. The logrank test was used to generate time-to-event curves for local recurrence, disease-free and overall survival.

Results: A total of 146 cases were eligible and included in the final analysis (standard nCRT, n=107, TNT, n=39). Mean follow-up was 38 months (range, 1–166 months). No significant difference was detected for any oncological outcome including local recurrence (P=0.08, HR 2.24, 95% CI: 0.28–17.63), disease-free survival (P=0.11, HR 2.1, 95%

CI: 0.59–7.73) or overall survival (P=0.2201, HR 1.46, 95% CI: 0.36–5.86) rates between the TNT and nCRT cohorts.

Conclusions: In this series, TNT demonstrated non-inferiority to standard neoadjuvant chemoradiotherapy with respect to medium-term oncological outcomes. However, given the small numbers in this cohort, outcomes from larger scale datasets will be required to confirm these results.

Keywords: Total neoadjuvant chemotherapy; survival; locally advanced rectal cancer; oncological outcomes; neoadjuvant treatment rectal cancer

Acknowledgments

Funding: None.

Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Open Access Statement: This is an Open Access article distributed in accordance with the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (CC BY-NC-ND 4.0), which permits the non-commercial replication and distribution of the article with the strict proviso that no changes or edits are made and the original work is properly cited (including links to both the formal publication through the relevant DOI and the license). See: <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

doi: 10.21037/map-23-ab040

Cite this abstract as: Nolan A, Choy M, O'Connell L, Regan M, Joyce M, Meshkat B, Hogan A, Nugent E. Oncological outcomes in total neoadjuvant chemotherapy comparative to standard neoadjuvant therapy in rectal cancer. *Mesentery Peritoneum* 2023;7:AB040.