Trastuzumab combined with trimodality treatment does not improve outcomes for patients

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Results of the NRG Oncology clinical trial RTOG 1010 indicate that the addition of the monoclonal antibody trastuzumab to neoadjuvant trimodality treatment did not improve disease-free survival (DFS) outcomes for patient with HER2 overexpressing local and locally advanced esophageal adenocarcinoma. These results were orally presented during the virtual Annual Meeting of the American Society for Clinical Oncology.

The Phase III NRG-RTOG 1010 trial evaluated 203 HER2 positive patients with a median follow up of five years. The primary aim of the trial was to determine if the addition of trastuzumab could improve DFS when combined with trimodality treatment of chemotherapy, radiotherapy and surgery for patients who have newly diagnosed esophageal cancer with HER2 overexpression. Patients on the trial had stage T1N1-2, T2-3N0-2 adenocarcinoma of the esophagus involving mid, distal, or esophagogastric junction and up to 5 centimeters of the stomach.

Trial participants were randomly assigned to trimodality standard of care with or without trastuzumab.Participants on the standard of care arm received chemotherapy consisting of paclitaxel and carboplatin weekly for six weeks with radiotherapy (CXRT), then followed by surgery. Participants on the experimental treatment arm received weekly trastuzumab during CXRT and then every three weeks following surgery

for 13 treatments.

Patients were evaluated for disease every four months for two years and then annually. DFS rates (95% CI) for patients on the CXRT plus trastuzumab (CXRT+T) treatment arm were 41.8% (31.8%, 51.7%) at two years, 34.3% (24.7%, 43.9%) at three years, and 33.1% (23.6%, 42.7%) at four years. DFS for patients on the CXRT alone arm were 40% (30.0%, 49.9%) at two years, 33.4% (23.8%, 43.0%) at three years, and 30.1% (20.7%, 39.4%)at four years, log-rank p=0.85. The median DFS time DFS in the CXRT+T arm was 19.6 months compared to 14.2 months in the CXRT alone arm. The hazard ratio (95% CI) comparing the DFS of CXRT+T arm to the CXRT alone arm was 0.97 (0.69, 1.36), and there were no statistically significant differences in treatment-related toxicity between arms.

"The strength of the National Cancer Institute's National Clinical Trials Network system was highlighted in this trial, as accrual of this HER2 overexpressing population was successfully completed as projected, allowing this important question to be answered. We will be performing genomic analysis to determine if there was a subset of patients who may still benefit from from the addition of trastuzumab to trimodality therapy in HER2 over expressing esophageal cancer," said Howard Safran, MD, of the Rhode Island Hospital and Brown University, the lead author of the NRG-RTOG 1010 abstract.

More information: Safran HP, Winter KA, Wigle D, DiPetrillo TA, Haddock MG, Hong TS, Leichman LP, Lakshmi R, Kachnic LA, Seaward S, Mamon H, Diaz Pardo DA, Anderson CM, Shen X, Sharma AK, Katz AW, Salo J, Leonard KL, Crane CH. Trastuzumab With Trimodality Treatment For Esophageal Adenocarcinoma with HER2 Overexpression: NRG Oncology/RTOG 1010. Abstract presented at the virtual Annual Meeting of the American Society of Clinical Oncology (ASCO).

Provided by NRG Oncology