

# Chemotherapy before chemoradiation shows no survival advantage in head and neck cancer

February 18 2016

---

Head and neck cancer patients who receive chemotherapy prior to radiation therapy (induction chemotherapy or IC) rather than the standard treatment that combines chemotherapy with radiation (chemoradiation or CRT) show no survival benefit and are less likely to receive a full course of radiation, according to research from the University of Colorado Cancer Center presented at the 2016 Multidisciplinary Head and Neck Cancer Symposium. The study, which examined more than 8,000 patient records in the National Cancer Data Base, represents the largest comparative analysis of IC and CRT to date.

"Most randomized trials designed to address whether induction chemotherapy improves outcomes have failed to demonstrate an increased overall [survival benefit](#). Those findings, however, typically were based on study designs that enrolled too few patients or too few patients with advanced cancers, thereby diluting the possible benefit of IC," explained study senior author Dr. Sana Karam, M.D., Ph.D., CU Cancer Center investigator, and assistant professor in the department of radiation oncology at the University of Colorado School of Medicine. Her study team included Dr. William Stokes, first author on the study, and Drs. Arya Amini, Bernard Jones, Jessica McDermott, David Raben, Debashis Ghosh and Daniel Bowles as co-authors on the study.

Karam and colleagues extended the question of whether IC improves survival in head and neck squamous cell carcinoma (HNSCC) to 8,003

records in the National Cancer Data Base (NCDB) of patients diagnosed with a variety of HNSCC subtypes between 2003 and 2011. Patients in the induction chemotherapy (IC) group (n = 1,917) began chemotherapy 43 to 98 days before starting radiation therapy (RT). Patients in the concurrent chemoradiation (CRT) group (n = 6,086) began chemotherapy within seven days of RT start and did not receive IC. Of the two groups, the IC cohort tended to be younger and presented with more advanced disease, as well as more hypopharyngeal cancer, a somewhat more aggressive form of the disease.

Controlling for a range of between-group differences, patients in the IC group were less likely to receive a full course of RT following administration of first-line chemotherapy. Twenty-one percent of the IC patients received less-than-definitive doses of RT compared with 15 percent of the CRT patients receiving definitive RT.

Median overall survival (OS) for IC patients was 52 months compared to 65 months for CRT patients, but this difference did not rise to statistical significance in the group's multivariate analyses.

Subgroup analyses further divided the treatment cohorts by disease stage to assess possible benefits of IC for advanced cases of HNSCC.

Induction chemotherapy did not improve OS even for patients with the most advanced disease. Moreover, IC predicted a slight increase in mortality compared to CRT for patients with less advanced head and [neck cancer](#).

"While we suspected that induction chemotherapy would not have an impact on our entire study population, we thought it might prolong survival for the most advanced cancers," said Karam. "Our finding from this large database that IC is not associated with improved overall survival over CRT, even for these [patients](#), will continue to dampen enthusiasm for routine use of induction therapy. In [cancer](#) care,

sometimes more is less. If adding [induction chemotherapy](#) fails to improve survival over the current standard of care, then we should reconsider its use."

The abstract, "Induction Chemotherapy Predicts Cumulative Radiation Dose and Fails to Improve Survival in Advanced Head and Neck Cancer, a National Cancer Database Analysis," will be presented in detail as a poster presentation at the 2016 Multidisciplinary Head and Neck Cancer Symposium in Scottsdale, Arizona.

Provided by University of Colorado Denver

Citation: Chemotherapy before chemoradiation shows no survival advantage in head and neck cancer (2016, February 18) retrieved 10 December 2023 from <https://medicalxpress.com/news/2016-02-chemotherapy-chemoradiation-survival-advantage-neck.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.