# *Alliance of Independent Academic Medical Centers Outstanding Resident Poster:* Effect of Ethnic Disparities on the Outcome of Stage III Colon Cancer Patients

## Background

Use of adjuvant chemotherapy has improved outcomes in patients with stage III colon cancer. However, dissimilarities in survival has been seen in patients of different ethnic groups.[1] Potential causes include disparities in the use of adjuvant chemotherapy among different ethnic groups[2,3]; less access to medical care, including screening colonoscopies for early diagnosis; surgery; and adjuvant chemotherapy.[4]

## Objective

We assessed if there are differences in survival for patients with stage III colon cancer who received adjuvant chemotherapy in a single health care system, based on their ethnic origin.

## Methods

We conducted a retrospective cohort study of patients with stage III colon cancer who were treated in 2 hospitals between 2004 and 2014. Inclusion criteria were surgery for stage III colon cancer and age greater than 18 years. Characteristics examined included age, sex, ethnic group (Asian/Indian, African American, Caucasian, and Hispanic), number of nodes involved, and whether and what type of chemotherapy was received. Survival curves with Kaplan-Meier estimates were used to determine and compare survival between ethnic groups and treatments. Socioeconomic status was not assessed.

## Results

The analysis identified 111 stage III colon cancer patients (with 74 patients from 4 ethnic groups who received chemotherapy and surgery, and 37 who only had surgery). There was no statistical difference between the groups for use of adjuvant chemotherapy, survival, or recurrence. Mean survival and recurrence were substantially shorter for the Asian/Indian cohort compared to the entire sample (survival: 35 versus 83 months; recurrence: 30 versus 89 months). However, the difference was not statistically significant. Increased number of nodes was a predictor of shortened survival (hazard ratio [HR] = 1.06; 95% confidence interval [CI] 1.01–1.11; $P = .014$), but not a predictor of recurrence (HR = 1.05; 95% CI 0.99–1.12; $P = .11$).

## Conclusions

Although prior studies[1,3] have shown racial/ethnic disparities in the use of adjuvant chemotherapy among Medicare patients with stage III colon cancer, data from this single institution did not show a difference in use of adjuvant chemotherapy among different ethnic groups. Survival outcomes seem to be the same in different ethnic groups when racial disparities are removed from the equation by only taking patients who have access to both surgery and chemotherapy. Members of the Asian/Indian ethnic group seemed to have shorter mean survival, but the difference was not statistical significant. The small sample may hamper meaningful analysis, and limits the conclusions that can be made. Continued efforts should be taken to resolve racial disparities at the time of cancer treatment.

**Carlos Sequera, MD**
Internal Medicine Resident, Advocate Illinois Masonic Medical Center

**Aklilu Mebea, MD**
Hematology/Oncology Physician, Advocate Illinois Masonic Medical Center

**Punam Rajput, MD**
Internal Medicine Resident, Advocate Illinois Masonic Medical Center

DOI: http://dx.doi.org/10.4300/JGME-D-16-00368.1

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