



GRADUATE SCHOOL OF BIOMEDICAL SCIENCES

MASTERS IN CLINICAL INVESTIGATION PROGRAM

MSCI THESIS DEFENSE

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Thursday, April 30, 2020 8:00 a.m.
Via Zoom Meeting

Association of Race/Ethnicity and Population Density with Disparities in Timeliness of Rectal Cancer Therapy

Objective:

Access to care is key to rectal cancer treatment. We hypothesized that ethnic/racial minorities living in high population density areas would have greatest delays in cancer care.

Methods:

Using 2004-2016 National Cancer DataBase data, we identified stage I-III invasive rectal adenocarcinoma surgical patients. The data were analyzed by race/ethnicity (whites, blacks, or Hispanics) and population density (metropolitan or urban/rural). Multivariable ANCOVA was performed to evaluate timing from diagnosis to surgery and neoadjuvant therapy.

Results:

The study population consisted of 76,131 patients: 65,172 whites (85.6%), 6,167 blacks (8.1%), and 4,792 Hispanics (6.3%). Of these, 61,363 patients (80.6%) lived in metropolitan areas and 14,768 in urban/rural areas. Among direct-to-surgery patients, the greatest difference in mean time from diagnosis to surgery was 20.3 days (urban/rural whites, 53.3 days, vs. metropolitan Hispanics, 73.6 days). Among patients receiving neoadjuvant therapy, the greatest difference in mean time from diagnosis to surgery was 18.8 days (urban/rural whites, 136.9 days, vs. metropolitan blacks, 155.7 days). After multivariable adjustment for clinical and socioeconomic factors, among direct-to-surgery patients, metropolitan Hispanics had a 16.5-day delay (95% CI 12.9-20.0) compared with urban/rural whites. In patients receiving neoadjuvant therapy, metropolitan blacks had an 18.1-day delay (95% CI 16.1-20.0) compared to urban/rural whites.

Conclusion:

The combination of high population density and racial/ethnic minority status was associated with delays in rectal cancer care that persisted after adjusting for other important clinical/socioeconomic factors. Understanding which populations are at risk and perceived obstacles to timely care will help inform interventions to minimize treatment access disparities.

Mentor(s)

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Dissertation Exam Committee

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