Incidence of Suicide in Patients with Young-Onset Colorectal Cancer

Sydney Taylor, BS, Annmarie Butare, DO, William Irish, PhD, Alexander A. Parikh, MD, MPH, Yuanyuan Fu, MA, MS; Rebecca A. Snyder, MD, MPH

Introduction

Incidence of colorectal cancer (CRC) has increased significantly among younger patients. Suicide is a leading cause of death worldwide among those 18 – 24 years of age (Chen et al., 2020). Suicide rates increasingly correlated with cancer and depression remains high in young-onset CRC patients.

To investigate a potential correlation between suicide and colorectal cancer between the ages of 18 and 24 years. We further hypothesize that patients aged 20 – 24 years will have the highest level of incidence of suicide. We hypothesize that factors associated with risk of suicide among these patients may include marital status, race, socioeconomic status, and cancer stage.

Materials and Methods

A retrospective study was conducted using data from the population-based National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) database. The study population included individuals aged 18 to 84 years with CRC diagnosed between 2000 – 2018. Standardized mortality ratios will be calculated to compare the risk of suicide in the study cohort with the general population. We further hypothesize that patients aged 20 – 24 years of age and year

Results

Preliminary data analysis is ongoing. Our hypothesis is that patients with young-onset CRC experience higher rates of suicide than the general population. We further hypothesize that patients aged 20 – 24 years of age will have the highest level of incidence of suicide. We hypothesize that factors associated with risk of suicide among these patients may include marital status, race, socioeconomic status, and cancer stage.

Discussion

Anticipated findings will inform the development of targeted mental health interventions by identifying which patients are at greatest risk. Uncovering the incidence of suicide in young-onset CRC patients will allow physicians to mitigate worsening mental health or suicidality.

Data will not only inform the field of oncology and surgical oncology, but also will aid mental health professionals within clinical and non-clinical specialties.

References


National Cancer Institute Surveillance, Epidemiology, and End Results Program: Overview of SEER. https://seer.cancer.gov/about/overview.html

https://news.virginia.edu/content/strange-colon-discovery-explains-racial-disparities-colorectal-cancer

Figure 1: https://doi.org/10.1016/j.mayocp.2013.09.006


Note. Demographics sex, race, and SMR (standardized mortality ratios) for all data divided among varying age groupings of patients with colorectal adenocarcinoma diagnosis.

Table 2: Demographic data (sex, race, SMR) for all data divided among varying age groupings of patients with colorectal adenocarcinoma diagnosis.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>All</th>
<th>Male</th>
<th>Female</th>
<th>Non-Hispanic Black</th>
<th>Non-Hispanic White</th>
<th>Non-Hispanic American Indian/Native Alaskan Native</th>
<th>Non-Hispanic Other Race</th>
<th>Hispanic (All Races)</th>
<th>Non-Hispanic Unknown</th>
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<td>1843</td>
<td>1959</td>
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<td>1516</td>
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<td>1950</td>
<td>3080</td>
<td>1530</td>
<td>940</td>
<td>1920</td>
</tr>
</tbody>
</table>

Note. SMR (standardized mortality ratios) represents the number of people who committed suicide in a demographically similar population within the same time period. O/E ratio represents the change in the risk for suicide within the year after a cancer diagnosis in comparison with the general US population.