Title:
Influence of Comorbidities on Symptom Severity in Cancer Patients

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Session Title:
Rising Stars of Research and Scholarship Invited Student Poster Session 2
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Keywords:
Cancer Symptom Management, Comorbid Conditions and Oral Oncolytic Agents

References:


Abstract Summary:
This work examines the impact of comorbidities on the symptom burden of cancer patients prescribed
oral oncolytic agents (OOA). With the increasing prescriptions of OOAs and the continued prevalence of
chronic conditions, these patients are at risk for increased symptom burden with minimal strategies to
manage their conditions.

Learning Activity:

<table>
<thead>
<tr>
<th>LEARNING OBJECTIVES</th>
<th>EXPANDED CONTENT OUTLINE</th>
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<tbody>
<tr>
<td>The learner will be able to identify some of the issues facing cancer patients on oral oncolytic agents, in terms of symptom burden.</td>
<td>This work utilizes multiple linear regression models that include multiple variables that may impact cancer patients' overall symptom severity.</td>
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<tr>
<td>The learner will be able to describe the impact that comorbid conditions may have on cancer patients prescribed oral oncolytic agents.</td>
<td>The focus of this work is to examine the impact of comorbid conditions on symptom severity among cancer patients prescribed oral oncolytic agents. Comorbid conditions is one of the primary predicting variables in this work, which will illustrate their effect on patients' symptom severity.</td>
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Abstract Text:

Background & Purpose
The increasing use of oral oncolytic agents (OOA) and the rising incidence of multimorbidity have combined to create a population with increased needs. Cancer patients that have been prescribed OOAs and have other comorbid conditions, are at risk for poor management of their cancer and comorbidities. Oral oncolytic agents comprise more than 30% of all prescribed chemotherapy. Over 50% of Medicare beneficiaries over age 65 with cancer have four or more additional chronic conditions that require some form of medical management. Oral oncolitics administered in the home, require cancer patients to self-manage the symptoms and side effects associated with cancer and treatment. The competing demands of OOAs and multimorbidity often have the potential to culminate in increased symptom burden for the patient who has a need for symptom management strategies. The purpose of this work is to examine the impact of comorbid conditions on symptom severity among cancer patients who were newly prescribed oral oncolytic agents.

Methods & Design

Data were collected from a sample of 272 cancer patients newly-prescribed oral oncolytics (136 males, 136 females) at baseline (initiation of OOA) and 4 weeks in a multi-site RCT testing symptom management strategies, using an adapted Dodd symptom-management framework. Telephone interviewers collected medication information, comorbid conditions, and severity (range: 1-10) of 18 symptoms using the Symptom Experience Scale, among other variables. Patients were randomized into control (n=135) and experimental (n=137) groups after baseline, and the experimental group was given a toolkit and instructed to refer to it when symptom severity was ≥4/10. Data were analyzed through descriptive statistics and multiple linear regression models, using STATA/IC 14.0. Baseline and 4-week symptom severity was examined in relation to sex, age, OOA drug class, treatment group, recruitment center, and number of comorbid conditions.

Results

Patients had a mean age of 61 years and presented with an average of 3.38 comorbidities, in addition to their cancer. At baseline, symptom severity was 21.7, and at 4 weeks, it was 22.1. Age was the only significant predictor of baseline symptom severity (p <.05). For each each increase in age by 1 year, symptom severity decreased by .22. Although not a significant predictor of baseline symptom severity, with each additional comorbid condition, symptom severity increased by 1. The only significant predictor at 4 weeks was the difference in symptom severity between two OOA classes, cytotoxics and sex hormone inhibitors (SHI). Cytotoxics’s mean symptom severity was 11.6 higher than SHIs. Comorbidities were not a significant predictor of 4-week symptom severity, only increasing by 0.69 with each increase in number of comorbid conditions.

Conclusions & Implications

Comorbid conditions have the potential to impact the clinical outcomes and quality of life for cancer patients prescribed oral oncolytic agents. Although not a significant predictor, with each increase in number of chronic conditions, comorbidities increase a patient’s overall symptom severity. However, after being on the new oral oncolytic treatment for 4 weeks, the effect of comorbidities is diminished. Age was a significant baseline predictor of symptom severity, but opposite of the typically observed trend. This increase in symptom severity in younger patients may be related to the harsh nature of cancer in younger adults. After being on the OOA for several weeks, drug class is the driving force of increased symptom severity. This work suggests the need for comprehensive management of both patients’ cancer and their other comorbid conditions, and concern for the changes over time.