Carcinoid syndrome (CS) results from secretion of bioactive amines, peptides, and polypeptides by functional neuroendocrine tumors (NETs). This syndrome develops in 20% of patients within 10 years after a NET diagnosis and is often associated with advanced neural-related symptoms. CS symptoms include episodic flushing, diarrhea, abdominal pain, fatigue, and peripheral edema. Several other primary NET sites are assessed for patients enrolled in clinical studies, with patient-submitted responses of breast, cecum, intestines, liver, mesentery, pancreas, small intestine, ureter, and unknown.

Methods

Data Source

Patients with CS symptoms from a study may be included in cancer awareness networks (CANS) such as Cure Further USA, or enrolled in clinical trials. This study included data from patients treated with somatostatin analogs (SSAs) such as octreotide or lanreotide. The survey assessed patient-reported outcomes for quality of life (QoL) and symptom control with SSA treatment. The study population included patients with advanced NETs and CS symptoms such as flushing, diarrhea, episodic flushing, and peripheral edema.

Statistical Analyses

A sensitivity analysis was conducted using a multilevel hierarchical model to adjust for the nested effect of the treatment received. However, a sensitivity analysis was performed to include both SSA treatment duration and duration of time since CS diagnosis in a hierarchical model to adjust for the nested effect, and the results were found consistent.

Results

Across all Primary Sites

Table 1: Demographics Characteristics

<table>
<thead>
<tr>
<th>Race, N (%)</th>
<th>All Patients (N=117)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hispanic or Latino</td>
<td>35%</td>
</tr>
<tr>
<td>Other primary site</td>
<td>12%</td>
</tr>
<tr>
<td>Other treatment</td>
<td>10%</td>
</tr>
<tr>
<td>Preferred route of administration</td>
<td>73%</td>
</tr>
</tbody>
</table>

Table 2: Clinical Characteristics

- Treatment Characteristics: the majority were treated with SSA for greater than 8 years (4th quartile) compared to those treated with SSA for less than 2.75 years (1st quartile).
- Multivariable regression analysis, adjusting for demographic factors, age, and selected clinical characteristics, showed that patients with higher symptom control were more likely to have improved QoL outcomes.
- There were no significant differences in QoL outcomes between SSA and other treatments.
- A sensitivity analysis was conducted using a multilevel hierarchical model to adjust for the nested effect of the treatment received.

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References


Disclosures

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Association between Duration of Somatostatin Analogs (SSAs) Use and Quality of Life in Patients with Carcinoid Syndrome in the United States Based on the FACT-G Instrument

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