A Pilot Study to Investigate Concerns in Patients Undergoing Neck Dissection Surgery

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Introduction

- Oropharynx cancer is increasing in Canada
- Patients have a wide array of concerns
- Need to identify importance of these concerns at different phases of treatment
Objectives

• Identify importance of patient-reported concerns across 3 time points during treatment: Pre-surgery, Discharge and 1-month Post-surgery

• Determine cross-sectional validity of Patients Concerns Inventory-Level of Importance questionnaire
Methods

• Prospective cohort study, March to August 2013 at London Health Science Centre (Victoria Campus), London, CANADA

• *Inclusion criteria*
  - Adult patients with head and neck cancer
  - Scheduled for neck dissection surgery

• *Exclusion criteria*
  - Patients with language and comprehension barriers
• Outcome Measures
  - Patient Concerns Inventory-Level of Importance (PCI-LOI)
  - University of Washington-Quality of Life Scale (UWQOL)
  - Shoulder Pain and Disability Index (SPADI)
  - Neck Dissection Impairment Index (NDII)
# Pre-surgical Characteristics

<table>
<thead>
<tr>
<th>Participants</th>
<th>n=40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years (min-max)</td>
<td>62.1 (32-90)</td>
</tr>
<tr>
<td>Gender, n(%)</td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>23 (57.5)</td>
</tr>
<tr>
<td>Surgery, n(%)</td>
<td></td>
</tr>
<tr>
<td>• Radical</td>
<td>7 (18.4)</td>
</tr>
<tr>
<td>• Modified radical</td>
<td>24 (63.2)</td>
</tr>
<tr>
<td>• Selective</td>
<td>6 (15.8)</td>
</tr>
</tbody>
</table>
Enrollment

40 enrolled at pre-sx

2 deaths
3 had different surgery
1 withdrawal

3 subgroups with data

n=29  n=25  n=21
Pre-Sx  D/C  Post-Sx
Analysis

• **Objective 1**
  - median scores of PCI-LOI at Pre-surgical, Discharge and 1-month Post-surgery

• **Objective 2**
  - Kruskal-Wallis for determining patient-reported outcomes across all 3 time points

• **Objective 3**
  - Spearman correlation coefficient for cross-sectional convergent validity of PCI
## Results

### Top 3 Concerns on PCI-LOI

<table>
<thead>
<tr>
<th>RANK</th>
<th>Pre-surgery</th>
<th>Discharge</th>
<th>1-month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anxiety</td>
<td>Appearance</td>
<td>Appearance</td>
</tr>
<tr>
<td>2</td>
<td>Appearance+Activity</td>
<td>Pain+Speech</td>
<td>Shoulder</td>
</tr>
<tr>
<td>3</td>
<td>Mood+Swallowing</td>
<td>Shoulder+Activity</td>
<td>Swallowing+Activity</td>
</tr>
</tbody>
</table>
# Relation between PCI-LOI and UWQOL

<table>
<thead>
<tr>
<th></th>
<th>Pre-surgery</th>
<th>Discharge</th>
<th>1-month</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PCI-LOI</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Function</td>
<td>-0.20</td>
<td>-0.55*</td>
<td>-0.42</td>
</tr>
<tr>
<td>Social Care</td>
<td>-0.10</td>
<td>-0.43*</td>
<td>-0.42</td>
</tr>
<tr>
<td>Psychological, Emotional, Spiritual</td>
<td>-0.11</td>
<td>-0.45*</td>
<td>-0.45*</td>
</tr>
<tr>
<td>Total Score</td>
<td>-0.15</td>
<td>-0.48*</td>
<td>-0.43*</td>
</tr>
</tbody>
</table>

*p < .05
Correlation between PCI-LOI and SPADI

<table>
<thead>
<tr>
<th>PCI-LOI</th>
<th>Pre-surgery</th>
<th>Discharge</th>
<th>1-month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Function</td>
<td>0.27</td>
<td>0.40*</td>
<td>0.62*</td>
</tr>
<tr>
<td>Total Score</td>
<td>0.31</td>
<td>0.45*</td>
<td>0.57*</td>
</tr>
</tbody>
</table>
Discussion

- Top Patient Concerns for neck dissection surgery:
  - “Shoulder” concerns arise at Discharge

- Validity of PCI-LOI supported at Post-SX timepoint
Future Research

• Identify changes in patient concerns at pre-surgery, 1-month, 3-month and 6-month post surgery

• Further evaluation of PCI-LOI as a practical tool
We acknowledge:

- Our patients for their efforts
- Simon Rogers for the use of his PCI