Opioid Prescription Patterns Among Patients With Head and Neck Cancer

Head and neck cancer (HNCA) pain represents a significant physical, psychological, and financial burden for patients. Opioids remain a mainstay of treatment for these patients, and selected local area vaccination coverage among adolescents aged 13-17 years—United States. MMWR Morb Mortal Wkly Rep. 2016;66:207-832. doi:10.5558/mmwr.mm6633a2


Methods

A retrospective cross-sectional analysis of the 2011, 2013, and 2015 Prescription Medicines Files, published as part of the Medical Provider Component of the Medical Expenditures Panel Survey (MEPS), was performed. MEPS is a nationally representative survey of households conducted annually by the Agency for Healthcare Research and Quality that provides an assessment of health care utilization. Every other year was selected, giving sampling period of 2 years per published data set. Massachusetts Eye and Ear Infirmary exempted the study from institutional review board approval.

The database was queried for all prescription events associated with an existing diagnosis of HNCA (Clinical Classification Software [CCS] code 011), as well as lung cancer (CCS 019) and colon cancer (CCS 014). The proportion of prescriptions that were opioids, mean pain per opioid prescription, duration of supply, and quantity of opioid prescribed were quantified and compared between HNCA and LCCA cohorts.

Results

A total of 739 prescriptions associated with HNCA (n = 168) and LCCA (n = 571) diagnoses during the study period were identified and included in the analysis. Patients with HNCA were at significantly greater odds of being prescribed an opioid than patients with LCCA (odds ratio [OR], 1.68; 95% CI, 1.13-2.49). In addition, a greater quantity of oxycodone tablets was provided per prescription for HNCA (mean [SD], 87.1 [82.4] tablets) compared with LCCA (mean [SD], 71.0 [56.3] tablets), although the standardized mean difference was highly variable (Cohen d = 0.25; 95% CI, −10.9 to 11.36). There was no difference in mean duration of supply or mean payment per opioid prescription between the 2 groups (Table).

Discussion

Head and neck cancer diagnoses were associated with significantly greater odds of opioid prescription. Data suggest that patients with HNCA have a higher prevalence of pain than patients with other cancer types, which may explain a necessity for more intensive pain management regimens. In a study of patients undergoing surgery for oral cancer, long-term use of opioids was associated with significantly decreased disease-free survival. Furthermore, there is a significant correlation between physician prescribing patterns and risk of overdose among patients with cancer receiving opioid therapy. Indeed, opioid use is not without risk, and achieving adequate pain management while minimizing the risk of substance overdose and misuse is critical.

It is imperative that head and neck cancer physicians are mindful of opioid prescription trends for patients with HNCA, especially in the context of the current opioid epidemic. This study provides preliminary insight into opioid prescription behaviors; however, it is limited by the absence of prior oncologic treatment, tumor stage, and location, as well as comorbid chronic pain conditions. There is an urgent need for further quantification and understanding of postprocedural and chronic opioid use in this patient population.

Table. Summary of Data on Opioid Prescription Patterns in Head and Neck Cancer (HNCA) and Lung or Colon Cancer (LCCA)

<table>
<thead>
<tr>
<th>Measure</th>
<th>HNCA</th>
<th>LCCA</th>
<th>Effect Size (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total prescription events, No.</td>
<td>168</td>
<td>571</td>
<td></td>
</tr>
<tr>
<td>Opioid prescriptions, No. (%)</td>
<td>48 (28.6)</td>
<td>110 (19.3)</td>
<td>1.67 (1.13 to 2.39)</td>
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<tr>
<td>Supply duration, mean (SD), d</td>
<td>15.7 (12.7)</td>
<td>15.5 (12.4)</td>
<td>0.02 (−2.41 to 2.45)</td>
</tr>
<tr>
<td>Payment per opioid prescription, mean (SD), $</td>
<td>57.63 (47.81)</td>
<td>53.06 (82.49)</td>
<td>0.06 (−11.37 to 11.50)</td>
</tr>
<tr>
<td>Quantity of oxycodone per prescription (tablets), mean (SD)</td>
<td>87.1 (82.4)</td>
<td>71 (56.3)</td>
<td>0.25 (−10.86 to 11.36)</td>
</tr>
</tbody>
</table>

*Effect size for means determined by Cohen d standardized mean difference, and effect size for categorical proportions determined by odds ratio (interpreted as odds of opioid prescription for HNCA as compared with LCCA).
Injectable Soft-Tissue Augmentation for the Treatment of Tracheoesophageal Puncture Enlargement

Tracheoesophageal voice restoration is currently the preferred surgical method for alaryngeal speech production. While it is a safe procedure with a high success rate, minor adverse consequences have been described, including enlargement of the tract around the tracheoesophageal prosthesis (TEP). This can result in periprosthetic leakage, which has been shown to increase the risk of pneumonia, voice prosthesis enlargement, and aspiration of the prosthesis. Frequently, a combination of nonsurgical and surgical strategies are used to effectively address this. Tissue augmentation around the tract has been described using a variety of injectable substances with varying degrees of success. The objective of this study was to determine the effectiveness of injectable augmentation with either nonresorbable calcium hydroxyapatite (CaHA) or resorbable hyaluronic acid (HA) in the treatment of TEP puncture site enlargement after total laryngectomy.

Methods | After appropriate institutional review board approval from Massachusetts Eye and Ear Infirmary, a retrospective medical review was performed for patients who had undergone soft-tissue filler injection to manage periprosthetic leakage between January 2008 and March 2015. Patients provided written informed consent. All patients underwent office-based injection by the senior author (D.G.D.) of either CaHA or HA after leakage was confirmed by a speech language pathologist. Injection was performed with the prosthesis removed. The TEP site was examined, and 3 to 4 sites of augmentation were selected. Each site was injected until submucosal filling was seen (Figure, A). The volume of filler injected ranged from 0.1 to 0.3 mL per site of injection.