

Quality of neck dissection operative reports



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ABSTRACT

Purpose: The operative report is the official documentation of an operation and a key form of surgical communication. The objective of this study is to assess completeness of operative reports for neck dissections.

Methods: This is a retrospective review of narrative operative reports for neck dissections for head and neck squamous cell carcinoma. Forty-nine operative reports were provided by ten surgeons from seven academic institutions. Operative report completeness was expressed as a percentage of variables from a standardized checklist created by an expert panel.

Results: For level 1 dissections, most reports identified critical structures, such as the marginal mandibular nerve (84%) and the submandibular gland (84%). Of the cases that involved submandibular gland excision, reports were deficient in identification of the lingual nerve (74%), hypoglossal nerve (58%) and submandibular duct (22%). For neck dissections involving levels 2, 3 and 4, most described identifying spinal accessory nerve (92%) and internal jugular vein (98%), whereas fewer described identification of carotid artery or vagus nerve (67%), ansa cervicalis (31%), or cervical rootlets (48%). For level 5 dissections, only 75% of reports reported identification of spinal accessory nerve. Sixty percent of reports provided some description of the removed lymph nodes, but there was no consistency in terminology or definitions. Overall completeness of all NORs was 64% (40%–79%, SD 9%).

Conclusions: There is heterogeneity and incompleteness in neck dissection operative reports across surgeons and institutions, despite being a crucial record of head and neck cancer treatment. © 2016 Elsevier Inc. All rights reserved.

1. Introduction

The operative report is the official documentation of an operation and a key form of surgical communication. It also serves other important functions related to education, billing, quality assurance, research and medico-legal issues. A dictated narrative by the surgeon is the documentation method used for the vast majority of surgical procedures. Traditionally, these reports are nonstandardized and include information deemed relevant by the individual surgeons. There are minimum standards required by the Joint Commission of Accreditation and Healthcare Organizations (JCAHO), but for the most part the content of operative reports is not regulated [1].

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Despite the importance of this document, prior research in several surgical fields has demonstrated that the completeness of the operative report is poor and can benefit from standardized checklists or synoptic reports [2–4]. In the otolaryngology literature, a 2007 audit of operative reports from an ENT department in the UK demonstrated an improvement in documentation after the introduction of a simple memory aide for dictating surgeons [5]. However, the quality of operative reports has not been studied critically in the field of head and neck surgery.

The objective of this study is to assess the completeness of operative reports for neck dissections in comparison to an expert panel consensus on essential and relevant data. We hypothesize that the operative reports for neck dissections from different surgeons are heterogeneous. We predict that they include varying amounts of the information deemed essential in a neck dissection operative report by a panel of head and neck experts.

2. Methods

This is a retrospective review of narrative operative reports (NORs) for neck dissections for head and neck squamous cell carcinoma (HNSCC). Head and neck surgeons from the University of Chicago Medical Center and six other academic institutions were invited to provide de-identified NORs for our study. NORs were stripped of all identifying information, including attending and resident surgeon names and hospital name, in order to preserve anonymity.

A panel of fellowship-trained head and neck surgeons, radiation oncologists and medical oncologists created a standardized checklist of variables considered necessary in an operative report for a neck dissection. These items include the operative steps needed to perform the procedure and the anatomic structures that are critical to identify and preserve during the procedure. We performed a literature search of synoptic operative reports and operative report checklists for other surgical procedures to help inform our own checklist.

To analyze the completeness of the NORs compared to our checklist, a database was created using Microsoft Excel 2007 (Microsoft Corp, Redmond, WA). The information contained in the NORs was coded in a binary fashion: 1 (present), 0 (absent), or non-applicable (NA). After non-applicable variables were excluded, the percentage of present codes for each variable and the mean values of percentages from all reports were calculated.

The Institutional Review Board (IRB) at the University of Chicago categorized this study as non human subjects research, thereby waiving the need for IRB review.

3. Results

Forty-nine NORs describing dissection of some or all of levels I–V were obtained from ten head and neck surgeons from seven academic institutions for analysis. Table 1 presents the list of essential variables included in our standardized checklist and the percentage of NORs that included them.

Almost all NORs described incision, subplatysmal flaps and identification of the sternocleidomastoid muscle (100%,

Table 1 – Completeness of operative reports (n = 49).	
Description of operative step	% complete NOR
Approach	
Describe incision	100%
Elevate subplatysmal flaps	90%
Identify sternocleidomastoid muscle	94%
Identify greater auricular nerve	8%
Identify external jugular vein	6%
Level I dissection	
Identify marginal mandibular nerve	84%
Identify submandibular gland	84%
Identify lingual nerve	74%
Identify hypoglossal nerve	58%
Identify submandibular duct	22%
Levels II–V dissection	
Identify spinal accessory nerve	92%
Identify internal jugular vein	98%
Identify vagus nerve	67%
Identify ansa cervicalis	31%
Identify cervical rootlets	48%
Level V dissection	
Identify spinal accessory nerve	75%
Closure	
Confirm hemostasis	94%
Check for chyle leak	24%
Closure technique	100%
Use of drains	100%

90%, and 94% respectively). Conversely, identification and preservation or sacrifice of the greater auricular nerve (8%) and external jugular vein (6%) were rarely recorded.

For level 1 dissections, most NORs identified critical structures, such as the marginal mandibular nerve (84%) and the submandibular gland (84%). Of the cases that involved submandibular gland excision, NORs were deficient in identification of the lingual nerve (74%), hypoglossal nerve (58%) and submandibular duct (22%). For neck dissections involving levels 2, 3 and 4, most described identifying spinal accessory nerve (92%) and internal jugular vein (98%), whereas fewer described identification of carotid artery or vagus nerve (67%), ansa cervicalis (31%), or cervical rootlets (48%). For level 5 dissections, only 75% of NORs reported identification of spinal accessory nerve.

Sixty percent of NORs provided some description of the removed lymph nodes, such as number, appearance, or surgeon suspicion for malignancy, but there was no consistency in terminology or definitions. Most described inspecting for hemostasis (94%), but few for chyle leaks (24%). All reported the closure technique (100%) and use of drains (100%). Overall completeness of all NORs was 64% (40%–79%, SD 9%).

4. Discussion

To our knowledge, this is the first analysis of the quality of operative reports in the head and neck surgery literature. Research in other surgical fields, however, has been active and corroborates our findings that the operative report is often deficient. Recent articles have highlighted the usefulness of the Download English Version:

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