Post-Operative Outcomes of Laryngectomy Patients Discharged to Home vs. to Facility

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Introduction

Head and Neck Cancer patients often present with multiple medical co-morbidities as well as socioeconomic difficulties. A prototypical patient is one who undergoes total laryngectomy, often presenting with advanced disease and limited access to care. These patients have increased supportive care needs from effects due to the disease process, treatment, and other global issues. A major decision for these patients post-operatively is discharge planning in which patients are either discharged home versus a secondary facility, such as a subacute facility, acute rehabilitation unit, or long term acute care hospital. Our study aimed to evaluate outcomes as they related to the setting and quality of continued post-operative care in these complex patients.

Methods and Materials

A retrospective analysis was performed of all patients undergoing total laryngectomy from January 2018 through April 2019. We divided this cohort into patients discharged home with family versus to a facility. After retrospective chart review, we examined patient demographics, preoperative factors such as comorbidities and disease risk factors. Surgical specific factors were also recorded with respect to complexity of surgery, reconstructive options, and other treatment related factors. Finally, we examined post-operative outcomes such as 30 day readmission rates, our primary outcome, as well as return to the Evaluation and Treatment Clinic (ETC). The ETC is a hospital based post-operative urgent care type clinic specifically available to patients of Keck Hospital. We compared outcomes between these two cohorts and how they related to patient and treatment related factors.

		# Patients	Readmissions	Free/loco-regional reconstruction	TEP	ETC Evaluation
Home	# Patients	13	4	7	6	3
	Percentage	62%	31%	54%	46%	23%
Facility	# Patients	7	2	6	4	0
	Percentage	33%	29%	86%	57%	0%

Figure 1.

Results

There were a total of 21 patients who had total laryngectomy identified. 62% (13/21) patients were discharged home versus 33% (7/21) to a nursing facility. One patient expired while in the hospital. The 30-day hospital readmission rate was 31% (4/13) for patients discharged home versus 28% (2/7) who were sent to nursing facilities.

Out of those discharged to home, 54% (7/13) had reconstructions with free or regional flap and 46% (6/13) had a primary TEP (tracheoesophageal puncture) placed, compared to 6/7 (86%) free or regional reconstruction and 4/7 (57%) TEP rate for those discharged to facilities.

23% (3/13) of patients discharged to home required evaluation at ETC, whereas none of those discharged to a facility came to the ETC.

Discussion

Laryngectomy patients have high re-admission rates as is described in the literature and supported by our findings.[1,2] Our data supports the theory that complexity of surgery is a deterrent to patient family being able to support the patient at home, as seen by the higher percentages of patients with TEP and free/loco-regional flaps that were discharged to a facility. Even in patients who had less complex surgery and were cleared from a multidisciplinary perspective to be discharged had increased readmission rate. This highlights the difficulty and continued post-operative care that laryngectomees require after their initial hospital stay.

Because Keck Hospital does not have an Emergency Room (ER), the ETC is a relatively new resource to help prevent readmission and to increase post-discharge access to the medical team at Keck Hospital. In our study, only patients discharged to home utilized this resource. A future direction of research would be if the ETC could be utilized more frequently by facilities, which generally contact ERs directly when patients require a higher level of care. Established partnerships with facilities and our outpatient clinic would help coordinate appropriate triage to ETC. Another topic for future study is difference in frequency of ER visits between these two patient groups. The improved capabilities of the electronic health record in accessing outside medical information will facilitate this endeavor.

Conclusions

Laryngectomee patients present complex post-operative care challenges that extend beyond the hospital. Even with favorable conditions, patients discharged home are at risk for continued difficulties in recovery. Transitioned post-inpatient care with nursing facilities should be considered in this patient population.

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