

The Role of the Speech-Language Pathologist in Assessment and Therapeutic Decision-Making for Post-Total Laryngectomy Dysphagia: Letter to the Editor

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Letter to Editor

Keywords: Swallowing disorders; Speech therapy; Total laryngectomy

Citation: Poorjavadi M. The Role of the Speech-Language Pathologist in Assessment and Therapeutic Decision-Making for Post-Total Laryngectomy Dysphagia: Letter to the Editor. J Res Rehabil Sci 2024; 20.

Received date: 31.12.2023

Accept date: 04.02.2024

Published: 03.04.2024

Introduction

Laryngeal cancer is one of the most prevalent malignancies of the upper aerodigestive tract (1). Although the proliferation of organ-preservation strategies, including radiotherapy and limited resections, has reduced the necessity for total laryngectomies, this procedure remains the gold standard for patients with advanced or recurrent cancers of the larynx and hypopharynx. In a total laryngectomy, the larynx is completely excised, resulting in the permanent separation of the respiratory and digestive tracts. While the primary objective of this surgery is the eradication of the tumor, the preservation of swallowing function and the restoration of oral intake are also critical goals of the therapeutic process (2).

In individuals who have undergone total laryngectomy, the risk of aspiration is eliminated, provided there is no fistula or leakage from the voice prosthesis. This anatomical separation may lead some speech-language pathologists or other healthcare professionals to overlook the possibility of other types of swallowing disorders in these patients. However, dysphagia is one of the most prevalent complications following total laryngectomy, with reported prevalence rates ranging from 35% to 89% across various studies (3). This impairment can result in malnutrition, weight loss, dietary restrictions, reduced social participation, and a decline in the quality of life. Patients commonly report symptoms such as food bolus stasis in the pharynx, the need for multiple

swallows, the use of liquids to facilitate bolus transit, prolonged mealtime, regurgitation, and difficulty swallowing solid foods (1, 3).

The pathophysiology of dysphagia following total laryngectomy is multifactorial. In addition to the anatomical alterations resulting from the excision of the larynx, it is influenced by factors such as radiotherapy, the specific method of pharyngeal reconstruction and closure, the extent of pharyngeal mucosal resection, and postoperative complications (4). The removal of the larynx eliminates the superior excursion of the hyolaryngeal complex, impairs the function of the pharyngeal constrictor muscles, increases bolus transit time, increases pharyngeal residue, and reduces esophageal contractile pressure. Furthermore, pharyngeal contractile weakness, increased resistance at the pharyngoesophageal junction, dysfunction or spasms of the pharyngoesophageal segment (PES), and pseudodiverticula formation are among the most significant structural and functional causes of swallowing disorders in these patients. Additionally, radiotherapy may further exacerbate swallowing dysfunction through the induction of xerostomia, pain, edema, fibrosis, lymphedema, and sensory neuropathy (3). Consequently, the origin of dysphagia in this population is often a combination of structural and functional factors, which complicates the identification of the primary etiology.

Given the diversity of mechanisms underlying dysphagia following total laryngectomy, a precise

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swallowing assessment is imperative before any therapeutic decisions are made.

In this context, speech-language pathologists (SLPs) play a pivotal role in clinical and, specifically, instrumental swallow evaluations to identify the source of the impairment and to differentiate functional disorders from treatable structural lesions. Since many causes of dysphagia in these patients, such as PES dysfunction or pseudodiverticula, may require surgical or endoscopic interventions, the findings from SLP assessments can be decisive in guiding patients toward the appropriate treatment and avoiding unnecessary interventions.

Acknowledgments

The author would like to express sincere gratitude to Dr. Leila Ghasisin for her constructive feedback

and comprehensive support throughout the drafting of this manuscript.

Authors' Contribution

Dr. Marzieh Poorjavad was solely responsible for the conceptualization, literature search, design, drafting, and critical revision of the manuscript.

Funding

This work received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Conflict of Interest

There is no conflict of interest in this article.

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