

Abstract

for the Pevoc 12, 2017, Gent

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SUPERIOR LARYNGEAL NERVE PARALYSIS: THE HIDDEN DIAGNOSIS AND OVERLOOKED ENTITY

INTRODUCTION:

The external branch of the superior laryngeal nerve (ESLN) innervates the cricothyroid muscle of the larynx, a vocal fold tensor primarily responsible for pitch elevation. In the literature is a longstanding controversy revisited regarding the laryngeal and phonatory signs that should be considered indicative of unilateral ESLN paralysis/paresis. Paresis of the superior laryngeal nerve is one of the most frequent causes of dysfunction of this nerve, mainly occurring in the context of thyroid surgery, surgery of the cervical vertebrae and caused by viral infections. These lesions often have gone unrecognized in the past and the patients mistakenly have been referred to the speech therapist with an incorrect diagnosis of "functional voice disorder."

METHODS:

In this retrospective study 10 patients with symptoms of restricted voice range, restricted loudness and voice fatigues where examined by following parameter:

Exact vocal history

Stroboscovideolaryngoscopy

Voice Range measurement.

Acoustics Analysing

At four patient we confirmed the examination result by laryngeal electromyography

DISCUSSION:

Some authors have concluded, that deviation of the petiole to the side of cricothyroid muscle weakness during high-pitched voice production represents a potential diagnostic sign of unilateral ESLN denervation

In our retrospective study all patients has had bilateral symmetrical vocal folds movement and a normal healthy mucosal situation, the upper voice range and the loudness in all patients were clear restricted, the deviation of the petiole was present in some cases. The frequent causes of these dysfunction disorder were in the context of thyroid surgery, surgery of the cervical vertebrae and idiopathic in two cases

The patients were treated by Principles of Lax Vox Therapy, Vocal Function Exercises according to Stemple and the Therapy principles for SLN Paresis according to Kruse (Göttingen). Posttherapeutic improvement was evident in all the parameters that were investigated.

The authors suggest that voice range measurement is the most useful parameter for analyzing the effects of SLN paresis or paralysis on voice and in measuring the outcome following voice therapy, the diagnosis of paralysis or paresis of the superior laryngeal nerve can be confirmed by laryngeal electromyography.

Literature:

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