

Case report – Dysphonia and Vocal Cord Paralysis

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Abstract

Vocal cord paralysis occurs when one or both of the bands of muscle inside the voice box (larynx), known as vocal cords or vocal folds, fail to move as they should. These muscles are situated atop the windpipe (trachea). When there is an alteration in normal voice quality, dysphonia can occur, and this may be attributed to structural and/or functional causes. According to Traditional Chinese Medicine (TCM) theory, there is a close connection between the function of the lungs and the throat, as well as the ability to speak. In order to function optimally, the throat and lungs, like other parts of our body, rely on nourishment from Qi and blood. Insufficient circulation or depletion of blood and Qi to the lungs and throat can adversely impact their roles in speaking, breathing, and swallowing. In this article is presented a case of 37 years old woman with vocal cord paralysis due to surgery papillary type of thyroid cancer. The patient was operated in January 2023, she came to the acupuncture center and started the therapies in August 2023 and has done 13 therapies until now. She had a significant improvement after the 10th therapy, her tone of voice finally returned, just had a little difficulty breathing. Acupuncture, as a part of TCM, is an effective treatment and can directly help the localized area to improve on the circulation of blood and Qi.

Key words: acupuncture, TCM, vocal cord, paralysis, dysphonia.

Introduction

Vocal cord paralysis occurs when one or both of the bands of muscle inside the voice box (larynx), known as vocal cords or vocal folds, fail to move as they should. These muscles are situated atop the windpipe (trachea). Vocal cord paralysis can significantly impact both speech and breathing. The vocal cords, or vocal folds, play a crucial role beyond sound production. They serve as a protective barrier for the airway, preventing the entry of food, liquids, and saliva into the windpipe (trachea), thus reducing the risk of choking. As a result, the challenges posed by vocal cord paralysis extend beyond communication difficulties to include potential breathing complications. Dysphonia, characterized by a rough, raspy, strained, or breathy voice, can impact the quality of the vocal expression. Hoarseness associated with dysphonia may influence the volume of the speech and the pitch of the voice, determining its high or low tones. While hoarseness can result from various factors, it is important to note that it is seldom indicative of a serious illness.

Symptoms and signs of vocal cord paralysis may include: hoarseness, noisy breathing, inability to speak loudly, frequent throat clearing etc. Symptoms of dysphonia include:

voice sounds raspy or breathy, the speaking is more quietly or softer than usual, and the voice sounds as if a person is having a hard time talking.

Vocal cord paralysis causes may include: Neck or chest injury, Injury to the vocal cord during surgery, tumors, Infections, and neurological conditions. Dysphonia can be caused by: laryngitis, vocal cord hemorrhage, vocal cord paralysis, age, vocal nodules, cysts and polyps, chronic acid reflux and etc.

Factors that may increase risk of developing vocal cord paralysis include: undergoing throat or chest surgery, having a neurological condition.

Dysphonia can be prevented if the patient: quits smoking, drinks plenty water, avoids spicy food, avoids activities that strain voice like speaking loudly and speaking for a long time. [1,2]

Case report

In this article is presented a case of 37 years old woman with vocal cord paralysis due to surgery papillary type of thyroid cancer. The diagnosis was obtained after the biopsy performed at the Institute of Pathophysiology and Nuclear Medicine, and the biopsy sample was examined in a cytology and histopathology laboratory. The patient was operated in January 2023. She came to the acupuncture center and started therapy in August 2023 and has done 13 therapies. She had a significant improvement after the 10th therapy, her tone of voice finally returned, just had a little difficulty breathing. Medication therapy includes Neurobion 1x1, Emanera 20 mg 2x1.

The acupuncture treatments were made in an acupuncture clinic for acupuncture and TCM in Skopje, North Macedonia by a doctor specialist in acupuncture. Acupuncture treatments were with a duration of 30 to 45 minutes. Treatments were done indoors, on a room temperature, with normal (dry) acupuncture with fine sterile disposable needles sized 0.25x25mm. Acupuncture points used in the treatments are: Gb20, Du14, Gb15, Li11, Du17.

In ancient times, the Chinese nation, one of the earliest civilizations in the world, forged a splendid culture through the creative endeavors of its ancestors. Through the accumulation of practical experiences, Traditional Chinese Medicine (TCM) has undergone a lengthy process of development, with its theoretical framework continually evolving and improving. TCM interprets the human body as an objectively existing entity, aligning with the material perspective embraced by modern Western medicine. In this regard, it can be asserted that TCM's comprehension of the body incorporates anatomical considerations. With aim to understand the body's structure, TCM offers a distinct perspective by explanation of the the arrangement and dimensions of certain organs through the concept of "Correspondence between Man and the Universe." This involves establishing connections, such as the correspondence between the body's five viscera and the five elements, as well as their alignment with the natural seasons and other aspects. In Chinese philosophy, the concept of Qi holds significant importance. According to Traditional Chinese Medicine (TCM) theory, Qi is the essential inner energy of human beings and plays a crucial role in maintaining health. TCM theory delves into the human body from an emotional perspective, identifying joy, anger, grief, thought, sorrow, fear, and fright as the seven emotions. According to this theory, these emotions exert a significant influence on an individual's physical well-being. [3]

For many years, acupuncture, a traditional Chinese medicine (TCM) therapy, has been utilized in the treatment of voice hoarseness. The insertion of small needles at specific points within the body, known as meridians, is the process involved in acupuncture. By stimulating these meridians, one can reduce Qi stagnation and blood stasis, facilitating the

flow of Qi through these energy pathways. It is believed that acupuncture can stimulate the nerves under the skin and muscles, in the end triggering an inflammatory response that stimulate tissue healing. [4]

Conclusion

Acupuncture as a part of Traditional Chinese Medicine (TCM) brings positive improvement in treating vocal cord paralysis. Acupuncture effectively provides a holistic and long-term improvement in the patient's general well-being.

References

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