Objective

To present an unusual case of Ramsay-Hunt Syndrome initially presenting with vocal cord paralysis originally treated as stroke in an elderly hypertensive woman. To discuss the probable contributing factors leading to this unusual disease process.

Case Report

A 62-year-old elderly, hypertensive woman presented with hoarseness associated with odynophagia, dysphagia, aspiration, left facial pain and left facial paralysis of three days duration. The patient was initially treated as a case of stroke. However, the imaging study of the brain revealed a normal result. Video laryngoscopy revealed left true vocal fold paralysis, with left arytenoid vesicular lesion. The patient was treated as a case of Ramsay Hunt Syndrome involving involvement of 7th and 8th cranial nerves, facial nerve, vagus nerve, glossopharyngeal nerve, and vestibulocochlear nerve, and recovered with anti-viral and oral corticosteroids after 2 weeks of treatment.

Discussion

Ramsay Hunt Syndrome is caused by the reactivation of pre-existing herpes zoster virus infection in the geniculate ganglion. The disease typically affects areas innervated by the facial nerve, and its signs and symptoms include otalgia, vesicular lesions involving the external ear, facial paralysis, deafness, and dizziness. This phenomenon most commonly occurs secondary to an immunocompromised state, especially in patients younger than 50 years but in advanced age it is most likely related to decreased VZV-specific cell-mediated immunity with increasing age. This could be the most probable mechanism by which the patient described in this case report developed facial palsy.

Ramsay Hunt syndrome may atypically involve the trigeminal nerve, the facial nerve, vestibulocochlear nerve, glossopharyngeal nerve, vagus nerve and/or cervical nerves simultaneously. Like in the case of our patient where—in she presented with unilateral facial paralysis, ipsilateral facial pain, otic herpes all of which are typical symptoms of patients experiencing the said disease. Although our patient presented with hoarseness, odynophagia and dysphagia as well, both of which are atypical symptoms.

Involvement of the facial nerve which is responsible for taste, somatosensory information from ear, and control of muscles of facial expression causes facial palsy or paralysis. While involvement of the trigeminal nerve leads to herpetic eruptions and neuralgia of the external auditory canal and the concha. Otalgia and odynophagia are induced by involvement of the glossopharyngeal nerve, which mediates sensation for the tongue base, tonsil and mesopharynx. Lastly, the vagus nerve which innervates the larynx via its superior laryngeal and recurrent laryngeal branches. Injury to the recurrent laryngeal nerve, which supplies all the intrinsic muscles of the larynx except for the cricothyroid, causes vocal fold paralysis. It is believed that multiple cranial nerve involvement could be due to the close proximity of the above mentioned cranial nerves, common embryonic origin in the same branchial arch or by blood involvement through their vessels.

Herpes Zoster Laryngitis is uncommon and patients would usually present with odynophagia, sudden hoarseness and dysphagia. It is also usually associated with vocal cord paralysis and unilateral laryngeal edema suggesting a laryngeal tumor, laryngeal tuberculosis, fungal infection, syphilis, abscess, or nonspecific laryngeal inflammation, so making a differential diagnosis is necessary. Having known this the patient in our case underwent series of diagnostic testing and imaging such as Cranial with Neck MRI with IV contrast and chest radiography to rule out other causes of the said symptoms. Flexible Laryngoscopy is the gold standard for the diagnosis of vocal cord paralysis; direct observation of abnormal movement confirms the diagnosis.

Conclusion

Elderly patients typically exhibit a greater degree of loss of function and a more difficult recovery. The presence of multiple cranial nerve involvement results in greater loss of function and is a negative prognostic indicator for recovery of vocal fold function. It is suggested that consideration should be given to early treatment of all Ramsay Hunt Syndrome patients with a 7- to 10-day course of Acyclovir and oral corticosteroids. These drugs have been shown to be both safe and effective treatment modalities.

The presentation of Ramsay Hunt Syndrome can be atypical and should not be disregarded merely on the basis of dysphagia. Consideration must be given to the possibility of multiple cranial nerve involvement, particularly when swallowing and airway protection are compromised. Swift diagnosis and treatment is crucial in the successful management of the disease.

References