



**RESEARCH ARTICLE**

**CASE OF POST-MEASLES BILATERAL VOCAL CORD PARALYSIS IN CHILDHOOD PRESENTING WITH RECURRENT UPPER RESPIRATORY INFECTION IN ADULT**

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**ABSTRACT**

Vocal cord paralysis is due to involvement of vagus nerve or distant branch of recurrent laryngeal nerve, it may occur as a consequence of encephalitis. Commonest cause of encephalitis is herpes simplex. Encephalitis may occur as a complication of measles. But bilateral vocal cord involvement in case measles is rare and till date no case has been detected. We has described a case of bilateral vocal cord paralysis as a consequence of encephalitis due to measles.

**Key words:**

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**INTRODUCTION**

Bilateral vocal fold paralysis (BVFP) is characterized by reduced or absent mobility of vocal cords due to weakness or paralysis of vagus nerve or distant branches recurrent laryngeal nerve. Commonest acquired cause of BVFP in child is neurological<sup>1</sup>, which may be due to different types of viral infection, namely, herpes, Epstein-barr, Varicella-zoster, mosquito borne tick-borne and measles virus<sup>2,3</sup>. Commonest type of vocal cord paralysis is left sided (56.82%), followed by right sided (36.36%) and bilateral (31.1%)<sup>4</sup>. Usually, this patient presents with dysphonia inspite of too apart, but in due course his voice will be normal inspite of encroachment of both vocal cords towards midline. So, the patient may present with recurrent respiration and cough. Here we presented a case of post-measles bilateral vocal cord paralysis in childhood presenting with recurrent upper respiratory infection in adulthood.

**Case report**

Sixty years old hypertensive, non-diabetic Indian male, farmer by occupation, was admitted with respiratory distress, hoarseness of voice and stridor. His respiratory distress was aggravated by intake of food and cold. On repeated enquiry to the patient and his party, the following past facts were came out. He was physically normal before 7 years of age. But, suddenly he developed rhinorrhea of acute onset with high fever. Two days after, diffuse macula-papular rash developed

all over the body and mucosa of the throat for which he complained of odynophagia. The patient was diagnosed as measles and was treated with intravenous fluid, antipyretic and antibiotics to cover secondary infection. But after two days, this patient developed progressively increasing headache followed by loss of consciousness and the patient was diagnosed as encephalitis, a complication of measles. Hematological report revealed leucocytosis with raised ESR, other blood reports, like, liver function test, renal profile, electrolytes were within normal limit. Computerized tomography of brain revealed no abnormality. After three days of intense treatment patient regained consciousness. But during course of recovery, the patient complained sudden stridor with mild respiratory distress which was treated conservatively and was discharged.

Since then the patient developed recurrent stridor with mild respiratory distress aggravated common cold and during taking food. He was treated conservatively in different village doctors and/or quacks, sometimes by homeopathic doctors.

In last January, 2015, he got admitted in Faridpur Medical College Hospital in Bangladesh with complaints of severe breathlessness, cough and stridor followed by unconsciousness. Indirect laryngoscopy revealed bilateral vocal cord paralysis. Here hematological investigation showed mild leucocytosis, raised ESR, LFT, electrolytes, renal profile were noncontributory. Lipid profile demoed raised cholesterol. Culture-sensitivity of blood, urine and sputum were negative.

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After recovery from acute condition, he was treated with proper antibiotics, antipyretics, antihypertensives, nasal decongestant and proton pump inhibitor and was discharged from the hospital in early February.

Again, he developed severe respiratory distress with stridor and neck pain in our hospital. After proper initial conservative management he was referred to Otolaryngologist. After proper examination, posterior laser cordotomy was done and the patient was recovered permanently.

## DISCUSSION

At the age of 7 years, the patients suffered from measles and complications of measles in the form of encephalitis. The same process involved basal meninges as well as vagus nerves producing bilateral vocal cord paralysis. Respiratory compromise in case of vocal cord paralysis is due to nearly complete adduction of vocal cord bilaterally<sup>5</sup>.

After thorough literature hunting it has been shown that herpes simplex virus produced recurrent laryngeal nerve paralysis<sup>6</sup>, but no study is able to show any evidence of vocal cord paralysis. So, it may be the isolated case of bilateral vocal cord paralysis probably due to involvement of bilateral vagus nerve as a result of involvement of basal meninges or due to involvement distant branch of recurrent laryngeal nerve. This patient was ultimately was treated by posterior laser cordotomy<sup>7</sup>.

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## References

1. Benninger MS, Gillen JB, Altman JS. Changing etiology of vocal cord paralysis. *Laryngoscope*, 1988; 108(9):1346-1350.
2. Toutouchi SJS, Eydi M, Golzari SEJ, Ghaffari MR, Parvizian N. Vocal cord paralysis and its etiologies: A prospective study. *J cardiovasc Thorac Res*, 2014; 6(1):47-50.
3. Schneider-Schaulies J, Niewiesk, Schneider-Schaulies S, Meulen VT. Measles virus infection in the CNS: The role of virus and host factors for the establishment and maintenance of a persistent infection. *Journal of neurovirology*, 1999; 5:613-622.
4. Rosin DF, Handler SD, Potsic WP, *et al.* Vocal cord paralysis in children. *Laryngoscope*. 1990; 100(1):90-91.
5. Broniatowski M, Grundfest-Broniatowski S, Hedley AJ, Shah NS, Barbu AM, Phillipbar SA *et al.* Improvement of respiratory compromise through abductor reinnervation and pacing in a patient with with bilateral vocal fold impairment. *Laryngoscope*, 2010; 120(1): 76-83.
6. Magnussen CR, Patanella HP. Herpes simplex virus and recurrent laryngeal nerve paralysis. Report of a case and review of the literature, 1979; 139:1423-1424.
7. Laccourreye O, Paz Escovar MI, Gerhardt J *et al.* CO<sub>2</sub> laser endoscopic posterior partial transverse cordotomy for bilateral paralysis of the vocal fold. *Laryngoscope*, 1999; 109(3):415-418.

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