

Bilateral vocal cord palsy: A rare complication of varicella in children

Sir,

Varicella is usually a benign disease in children with severe forms and complications occurring more frequently among adults and immunosuppressed people. Common neurologic complications include cerebellar ataxia and encephalitis, while the rare ones are transverse myelitis, aseptic meningitis, Guillain-Barre syndrome and facial paralysis.^[1] Unilateral vocal cord paralysis complicating varicella-zoster infection has been mentioned in a few case reports in the literature.^[2] We report a child who presented with bilateral vocal cord palsy following varicella infection and was managed successfully.

A 2-year-old male child was admitted with complaints of fever for 9 days, hoarseness of voice and stridor for 4 days. He had varicella infection 12 days prior to admission. There was no history of dysphagia or regurgitation of feeds. The patient's father, mother and uncle were suffering from active varicella infection. On examination, the child was febrile, with a heart rate of 130/min and respiratory rate of 38/min. Evidence of post-varicella rash on the trunk and face with crusted lesions was present. In the intensive care unit, fiberoptic laryngoscopy was performed to determine the cause of his stridor, which revealed immobile vocal cords in the paramedian position. There were no vesicles or ulcers present on the larynx or palate. Gag reflex was present. Ear examination was normal. Respiratory system examination showed bilateral conducted breath sounds. Other systems were normal. A diagnosis of bilateral vocal cord paralysis following varicella infection was made. Intravenous acyclovir and intravenous fluids were started. Electromyography of the larynx was not performed as the facility is not available in our institution. Magnetic resonance imaging of the brain and spinal cord was normal. His cerebrospinal fluid studies were normal. Varicella titers were strongly positive. Complete blood count, serum electrolytes and serum calcium were

normal. Blood culture sent on the day of admission showed no growth. His fever subsided on the third day of admission. The patient was started on nasogastric feeds from the third day of admission. His stridor improved after 7 days and hoarseness of voice resolved 15 days after admission. Subsequent flexible fiberoptic laryngoscopy showed normal movement of both vocal cords. He was discharged on oral feeds and is well on follow-up after 6 months.

The presence of post-varicella lesions on the skin in our patient made us think of the possibility of varicella-induced vocal cord palsy. Neurological complications of varicella can be due to direct invasion of the virus or by immunological mechanisms. Our patient presented in the resolving phase of varicella infection thus explaining the absence of varicella lesions in the larynx. Vocal cord paralysis can occur due to mechanical, infections, neurological or idiopathic cause. The determination of the cause of paralysis is important in choosing the treatment, as those caused by a neurological cause have a higher likelihood of recovery as compared with idiopathic paralysis.^[3] Spontaneous recovery of mobility happens in a significant number of cases and hence conservative management is preferred.^[3,4] Surgical intervention is indicated when respiratory distress is significant. Varicella zoster virus is associated with multiple cranial neuropathies, the most common being facial nerve paralysis.^[5] Most of the cases described in the literature are due to varicella zoster reactivation. Some authors have even suggested that V-Z virus should be considered in the differential diagnosis of patients with idiopathic-associated laryngeal paralysis, and rapid antiviral therapy should be initiated when necessary.^[2]

In conclusion, although varicella is generally a mild and self-limiting illness, it can have complications like vocal cord paralysis. This case alerts us to the occurrence of rare complications of common diseases and the importance of prompt initiation of treatment.

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