



Recovery in Child with Bell's Palsy

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Abstract

Bell's palsy is an acute, idiopathic, ipsilateral facial nerve neuropathy aetiology that can cause facial expression muscles to become weak. The parasympathetic innervation of the glands of the oral cavity and the lacrimal gland, the sensory innervation of the anterior two-thirds of the tongue, and the motor innervation of the facial muscles that control facial expression are all provided by the facial nerve. The compression and eventual ischemia of cranial nerve seven can be caused by acute inflammation and oedema. Herpes simplex virus is the most typical viral cause of Bell's palsy. In this case report we report a case of 12-year-old child with bell's palsy and eventual recovery.

Keywords: paediatrics, bell's palsy, facial nerve Idiopathic; Steroid therapy; Good prognosis.

Introduction

First described by Scottish Surgeon, Dr Charles Bell in 1821, Bell's palsy is an idiopathic peripheral-nerve palsy that affects the facial nerve and renders the facial muscles on the affected side partially or fully paralysed.¹ The most prevalent facial nerve dysfunction, Bell's palsy, affects 11 to 40 people out of every 100,000 people each year.² Diabetes and pregnancy are the most prevalent risk factors, with less common being high blood pressure, toxins, infections, and ischemia.³ Numerous studies back up the use of corticosteroids and eye care to minimise Bell's Palsy symptoms.^{4,5} Bell's palsy can be complete or partial and is typically unilateral. Both sides may be equally impacted. The compression and eventual ischemia of cranial nerve seven can be

caused by acute inflammation and oedema. The labyrinth segment contains the most frequent location.⁶ We present a case of a twelve-year-old male with Bell's palsy.

Case Report

A twelve-year-old boy presented to OPD with right hemifacial paralysis over one week. There was no history of trauma, skin eruptions, fever, ear discharge, localised swelling or hearing loss. On examination restricted movement of right upper and lower lips were observed. Figure 1&2 shows facial asymmetry with total lower motor neuron type paralysis of the right facial nerve affecting the right eye and causing asymmetry of mouth.



Figure 1: facial asymmetry



Figure 2: Facial asymmetry on opening of mouth

No tenderness or skin lesions were observed around that region. No lymphadenopathy was observed. Imaging of the face and neck did not reveal any clinically important abnormalities. He was given the diagnosis of viral left hemifacial

Bell's palsy. He began a course of acyclovir, vitamin B complex, prednisolone, and artificial tears. After six weeks, a follow-up appointment was set up, and a sizable recovery was noted (figure 3 & 4).



Figure 3 Recovery of orbicularis oculi function



Figure 4 Resolution of Facial asymmetry

Discussion

The aetiology of Bell's palsy is unknown, despite the fact that there are many theories about its cause. Bell's palsy, also known as idiopathic facial palsy, is thought to be caused by inflammation of the facial nerve at the geniculate ganglion, which results in compression, ischemia, and demyelination. Most common infective agent is Herpes virus.

There may be initially a prodrome of sharp pain in ear, sensitivity to noise followed by unilateral paresis of both upper and lower face. There may also be a reduced sense of taste. Patient is unable to wrinkle both sides of forehead, there is weakness of muscles of eyelid, reduced lacrimation with ocular erythema/irritation. Weakness of muscles of facial expression and nasolabial fold. While Bell's palsy symptoms can vary slightly between individuals, the majority of patients, or about 70% of them, will recover on their own, whether or not they receive treatment. The patient has trouble closing their eyes due to sagging eyelids, and when they do so, Bell's phenomenon causes the eye to roll up. Eye irritability is frequently caused by inadequate lubrication and prolonged exposure. Tear production decreases, but the patient develops

epiphora because they are unable to control their eyelids, causing their tears to flow freely. Food and saliva may collect in the mouth's affected side and possibly spill out of the mouth's corner. The paralysis frequently causes patients to feel numb, but facial sensation is still present.

Patient management consists of antivirals, corticosteroids and eye protection. Eye protection is achieved with eye ointments. Steroids are used for their anti-inflammatory effect and acyclovir suppresses herpes virus infection if present. Other treatment modalities for Bell's palsy include tarsorrhaphy, transcutaneous peripheral nerve stimulation, and occasionally surgical nerve decompression for patients with persistent paralysis.

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