

Case report of a patient with bell's palsy

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Abstract

Bell's palsy is defined as an acute ipsilateral facial nerve paralysis with unknown aetiology which can result in weakness of the muscles of facial expression and is characterized by unilateral paralysis of all muscles of facial expression. Physical therapies including tailored facial exercises, acupuncture to affected muscles, massage, thermotherapy and electrical stimulation have been used to hasten recovery. Early facial exercise may reduce recovery time, long-term paralysis and number of chronic cases.⁵

Assessment: The patient noticed heaviness of half side of face and pain anterior to her left ear, just above the facial nerve trajectory. There was flattening of nasolabial furrow and angle of mouth was deviated to one side. Restricted movement was noticed for muscles of lips, left superior palpebra and left eyebrow region. Movement was associated with moderate pain around the left ear. He also demonstrated an inability to close the right eye, to corrugate the left eyebrow or to move her lips.

Treatment: We have set the goals for the rehabilitation such as to improve the condition of face, Improve speech, eating, to prevent the secondary complications and to Re-education of muscle of facial expression. Patient received physiotherapy for 25 days. Grade of muscle strength and facial appearance started to improve within a week. After successful completion of treatment, patient recovered with minimal residual weakness.

Keywords: paralysis, Aetiology, thermotherapy, electrical, inability

Introduction

Bell's palsy is defined as an acute ipsilateral facial nerve paralysis with unknown aetiology which can result in weakness of the muscles of facial expression and is characterized by unilateral paralysis of all muscles of facial expression^[1]. Bell's palsy has an incidence of 20-30 cases for 100,000 and it accounts for more than half of all cases of unilateral peripheral facial palsy^[2]. It occurs in people of all ages but, most commonly, individuals 15–50 years of age with equal sex^[3]. Most patients recover completely, although some have permanent disfiguring facial weakness.⁴ Poor prognostic factors include older age, hypertension, impairment of taste, pain other than in the ear, and complete facial weakness. Electrical stimulation may facilitate partial reinnervation in patients with chronic facial paresis/paralysis^[4]. Physical therapies including tailored facial exercises, acupuncture to affected muscles, massage, thermotherapy and electrical stimulation have been used to hasten recovery. However, there is no evidence for any significant benefit. There is a Cochrane review concluded from poor-quality evidence that tailored facial exercises can help improve facial function, mainly for moderate paralysis and chronic cases. Early facial exercise may reduce recovery time, long-term paralysis and number of chronic cases^[5].

Case Report

A 61-year-old man reported to our Physiotherapy department with Bell's palsy and asymmetry of side of the face from 5-days ago.

Assessment

1. History of the patient

He noticed heaviness of half side of face and pain about 10

mm anterior to her left ear, just above the facial nerve trajectory.

2. On Observation

- There was flattening of nasolabial furrow.
- Angle of mouth was deviated to one side.
- Right eyebrow is upper than the left one.

3. Clinical examination revealed

- Vital sign
- blood pressure 100/60 mmHg,
- pulse rate 80 beats per minute,
- respiratory rate 16/min and
- temperature of 37.3°C
- Restricted movement was noticed for muscles of lips, left superior palpebra and left eyebrow region. Movement was associated with moderate pain around the left ear.
- He demonstrated an inability to close the right eye, to corrugate the left eyebrow or to move her lips.
- Ocular examination there WAS weakness or paralysis of the orbicularis oculi muscle and normal function of the levator muscle. The patient frequently is not able to close the eye completely of the affected side. While the patient is examined in this test and he is unable to do it, his eye rolls upward and inward on the affected side.
- Taste and salivation are affected in many patients with Bell's palsy. Taste was assessed by holding the tongue with gauze and testing each side of the tongue independently with salt, Sugar and vinegar. In our case, taste sensation was impaired.
- he was unable to close his eye and did not complain from headache, nausea and
- There was no hearing disorder

- Asymmetry of face during smile.
- Tone:

Table 1

S. No.	Muscle	Left	Right
1	Nasalis	0	4
2	Depressor septi	1	4
3	Procerus	1	4+
4	Levatorangulioris	2	4
5	Zygomaticus Major	0	4
6	Levatorlabii	1	4
7	Orbicularis oris	1	4
8	Buccinator	1	4
9	Orbicularis oculi	2	4+

4. Posture Examination

- Left eye is less wide open than the right one
- Left lower corner of the mouth is lower.



Fig 1: Muscle Stimulation

Rehabilitation

Goals

- Improve the condition of face,
- Improve speech, eating etc.
- Prevent the secondary complications.
- Protect the patient from other infection.
- Re-education of muscle of facial expression.
- Educate patient about prognosis and plan of care (POC).

Treatment

Patient received physiotherapy for 25 days. Grade of muscle strength and facial appearance started to improve within a week. After successful completion of treatment, patient recovered with minimal residual weakness.

1. Muscle stimulator

Initially we have started with the galvanic stimulation. Then, we switched to faradic stimulation. Individual muscle were stimulated by using pen electrode

2. Facial exercise

Patient were instructed to do all the movement of the facial muscles (5-10 times)

3. Face Massage

To relax and mobilise the face muscles

4. Visual Feedback

Patient were instructed to do all the facial expression movement in front of the mirror so that he can differentiate between normal and abnormal pattern of the movement and

also can try to correct them

5. Counseling of patient To Reassure the Patient.
6. Education of Patient

To keep the left eye closed with tape or a sleep mask during the night to avoid conjunctive dryness



Fig 2

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