Review Article

International Journal of Neurology and Neurosurgery
Volume 15 Number 1, January – March 2023
DOI: http://dx.doi.org/10.21088/ijnns.0975.0223.15123.3

Bell's Palsy (Facial Paralysis): A Systematic Review

Simrat Kaur[1], S.P. Subashini[2], Devendra Kumar[3]

How to cite this article:
Simrat Kaur, S.P. Subashini, Devendra Kumar/Bell's Palsy (Facial Paralysis): A Systematic Review/Int J Neurol Neurosurg.2023;15(1): 21-24.

Abstract

Bell's palsy is also known as "acute facial palsy of unknown cause." It's a condition in which the muscles on one side of your face become weak or paralyzed. It affects only one side of the face at a time, causing it to droop or become stiff on that side. It's caused by some kind of trauma to the seventh cranial nerve. This is also called the "facial nerve." Bell's palsy can happen to anyone. But it seems to occur more often in people who have diabetes or are recovering from viral infections. Most of the time, symptoms are only temporary. A few people don't recover fully and are left with some weakness or paralysis of the muscles on that side of their face.

Keywords: Bell's palsy; Acute; paralyzed; Trauma; Infections; Weakness.

INTRODUCTION

Bell's palsy is a condition that causes a temporary weakness or paralysis of the muscles in the face. It can occur when the nerve that controls the facial muscles becomes inflamed, swollen, or compressed. The condition causes one side of the face to droop or become stiff. The may have difficulty smiling or closing the eye on the affected side. In most cases, Bell's palsy is temporary, and symptoms usually go away within a few weeks or months. Although Bell's palsy can occur at any age, the condition is more common among people between ages 16 and 60. Bell's palsy is named after the Scottish anatomist Charles Bell, who was the first to describe the condition. It is caused by unilateral inflammation of the 7th cranial nerve, which results in weakness or paralysis of the facial muscles on the affected side. Although the cause is unknown, theories about causes include vascular ischemia, viral disease (herpes simplex), autoimmune disease or a combination of all these factors. Most adults with Bell's palsy are thenger than 45 years. Bell's palsy may be a type of pressure paralysis. The inflamed, edematous nerve becomes compressed to the point of damage or its blood supply is occluded, producing ischemia necrosis of the nerve. The face is distorted from paralysis of the facial muscles, increase lacrimation (tearing) and painful sensations in the face, behind the ear and in the eye. The patient may experience speech difficulties and may be unable to eat on the affected side because of the weakness or paralysis of the facial muscles. Most patients recover completely and bell's palsy rarely recurs.

Author Affiliation: [1]Professor, [2,3]Dean, School of Nursing, Department of Medical Surgical Nursing, School of Nursing, Galgotia University, Greater Noida 201306, Uttar Pradesh, India.

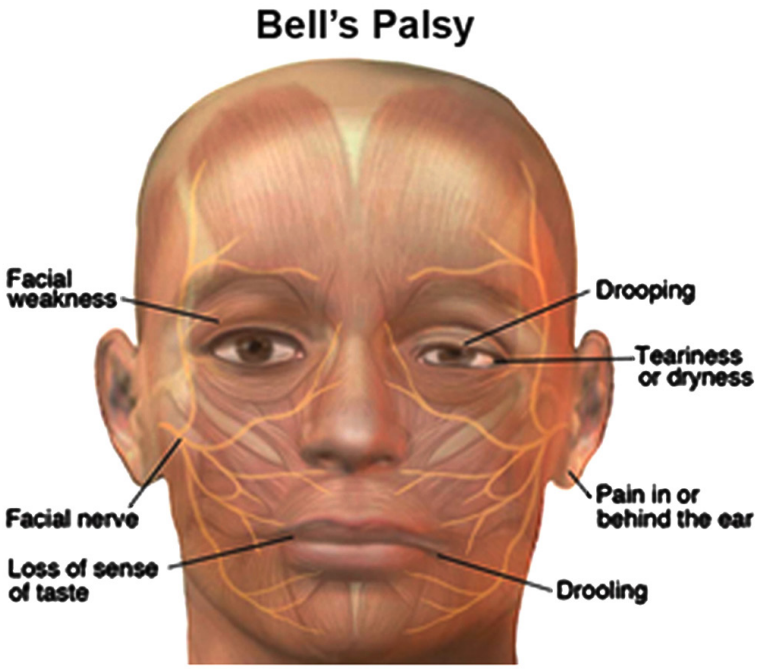
Corresponding Author: S.P. Subashini, Dean, Department of Medical Surgical Nursing, School of Nursing, Galgotia University, Greater Noida-201306, Uttar Pradesh, India.

E-mail: dean.son@galgotiasuniversity.edu.in

Received on: 02.01.2023

Accepted on: 10.03.2023

© Red Flower Publication Pvt. Ltd.



Source: Provide by author

CAUSES OF BELL'S PALSY

Bell's palsy occurs when the seventh cranial nerve becomes swollen or compressed, resulting in facial weakness or paralysis. The exact cause of this nerve damage is unknown, but many medical researchers believe it's most likely triggered by a viral infection.

The viruses and bacteria that have been linked to the development of Bell's palsy include:

- Herpes simplex, which causes cold sores and genital herpes
- HIV, which damages the immune system
- Sarcoidosis, which causes organ inflammation
- Herpes zoster virus, which causes chickenpox and shingles
- Epstein-Barr virus, which causes mononucleosis
- Lyme disease, which is a bacterial infection caused by infected ticks

Sign and Symptoms of Bell's Palsy

The symptoms of Bell's palsy can vary in severity, from mild weakness to total paralysis. The more inflammation and compression the facial nerve is exposed to, the more severe the paralysis tends to be, and the longer it takes for the nerve to heal and regain function.

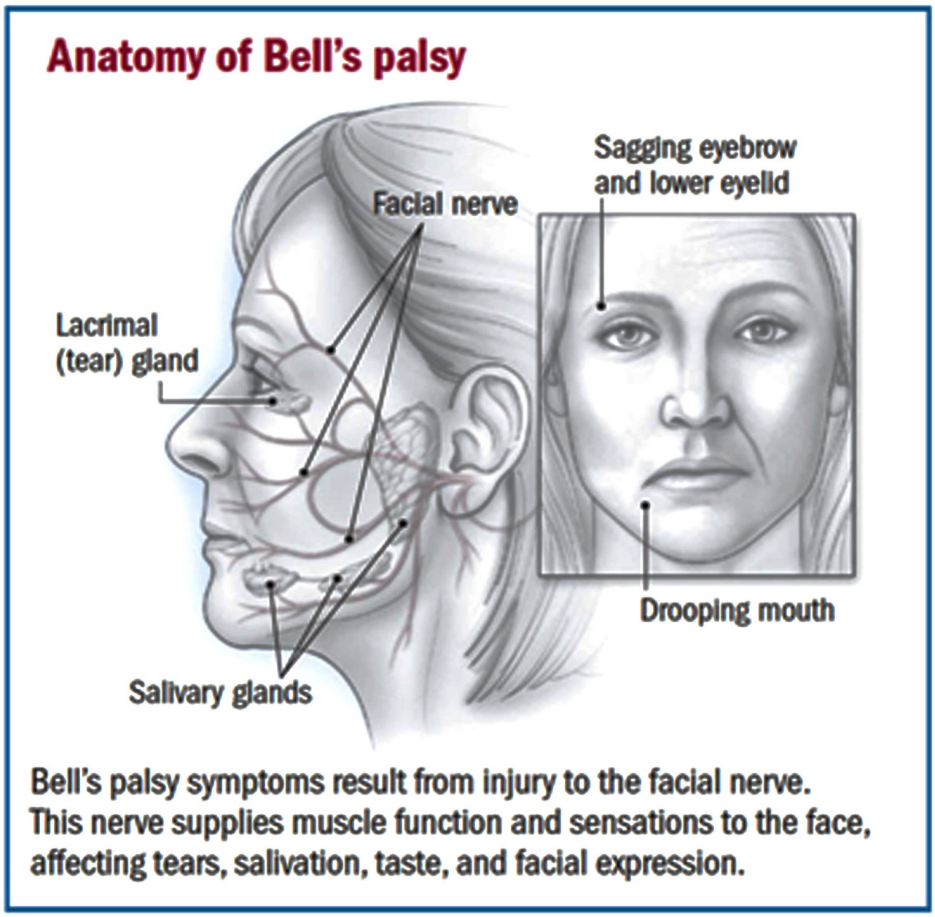
The symptoms of Bell's palsy can develop 1 to 2 weeks after:

- Cold
- Ear infection
- Eye infection

The symptoms usually appear abruptly, and may notice them when wake up in the morning or when try to eat or drink. Bell's palsy is marked by a droopy appearance on one side of the face and the inability to open or closeeye on the affected side. In rare cases, Bell's palsy may affect both sides of face.

Other signs and symptoms of Bell's palsy include:

- Facial weakness
- A droopy mouth
- An inability to make facial expressions, such as smiling or frowning
- Difficulty pronouncing certain words
- Dry eye and mouth
- Altered taste
- Drooling
- Sensitivity to sound
- Difficulty eating and drinking
- Muscle twitches in the face
- Irritation of the eye on the involved side
- Headache



Source: Provide by author

MEDICAL MANAGEMENT

Objectives of the treatment are: to maintain muscle tone of the face and to prevent or minimize denervation. The patient should be reassured that no stroke has occurred and that spontaneous recovery occurs within 3-5 weeks in most patients. Corticosteroid theapy (prednisone) may be prescribed to reduce inflammation and edema, this reduces vascular compression and permits restoration of blood circulation to the nerve. Early administration of corticosteroid theapy appears to diminish the severity of the disease, relieve the pain and prevent or minimize denervation. Facial pain is controlled with analgesic agents. Heat may be applied to the involved side of the face to promote comfort and blood throw the muscles.Electrical stimulation may be applied to the face to prevent muscle atrophy. Although most patients recover with conservative treatment, surgical exploration of the facial nerve may be indicated if a tumor is suspected for surgical decompression of the facial nerve or for surgical treatment of a paralyzed face.

- ***Use artificial tears or eye drops during the day:*** If the eyelid doesn't completely close, or if can't blink, the can develop a pretty significant case of dry eye, also known as exposure keratitis. Without treatment, the might develop some damage to the cornea. The eye doctor can give the more specific advice on how many times per day to use the drops. If the need to use lubricating eye drops more than four times a day, be sure to use preservative free eye drops, which won't irritate the eye.
- ***Use a heavy lubricating ointment in the eye at night:*** This kind of thicker ointment will prevent moisture loss in the eye while sleeping, but it can make the vision blurry. Apply right before the go to sleep.
- ***Tape the affected eye shut at night:*** To prevent the eye from drying out during the night, use surgical tape to close the eyelid when the go to bed. Be gentle with removing the tape when the wake up so as not to damage the eyelid or the skin around the eye.
- ***Consider using an eye patch:*** Some experts

suggest placing a patch or moisture chamber over the eye to reduce moisture loss and prevent dry eye.

- ***Use a straw:*** Sometimes it's hard to drink from a glass when the mouth is droopy. To reduce the likelihood of dribbling water or other beverages down the chin, try using a straw.
- ***Talk with someone:*** If feeling down about the appearance, don't hesitate to talk about the feelings with a trusted friend or even a counselor or therapist.
- ***Consider alternative therapies:*** Complemen -tary therapies won't cure the Bell's palsy symptoms, but they might help the feel better.
- ***Try to rest as much as possible:*** Dealing with facial paralysis and the changes it brings can be stressful. Try to rest as much as the can, get plenty of sleep, and focus on eating nutritious, wholesome foods.

CONCLUSION

Bell's palsy is a type of facial paralysis that results in a temporary inability to control the facial muscles on the affected side of the face. In most cases, the weakness is temporary and significantly improves over weeks. Symptoms can vary from mild to severe. They may include muscle twitching, weakness, or total loss of the ability to move one or, in rare cases, both sides of the face. Other symptoms include drooping of the eyelid, a change in taste, and pain around the ear. Typically symptoms come on over 48 hours. Bell's palsy can trigger an increased sensitivity to sound known as hyperacusis. The cause of Bell's palsy is unknownand it can occur in any age. Risk factors include diabetes, a recent upper respiratory tract infection, and pregnancy. It results from a dysfunction of cranial nerve VII (the facial nerve). Many believe that this is due to a viral infection that results in swelling. Diagnosis is based on a person's appearance and ruling out other possible causes. Other conditions that can cause facial weakness include brain tumor, stroke, Ramsay Hunt syndrome type 2, myasthenia gravis, and Lyme disease.

REFERENCES

1. https://rspmanguharjo.jatimprov.go.id/wp-content/uploads/2020/02/11.-Handbook-for-Brunner-and-Suddarths-Textbook-of-Medical-Surgical-Nursing-12th-Edition-Suzann.pdf
2. https://www.healthline.com/health/bells-palsy#causes
3. https://en.wikipedia.org/wiki/Bell%27s_palsy
4. https://www.webmd.com/brain/understanding-bells-palsy-basics
5. https://www.healthdirect.gov.au/bells-palsy
6. https://www.google.com / search?q = bell%27s +palsy & rlz=1C1UEAD_enIN1021IN1021 & source = lnms & tbm=isch & sa=X & ved =2ahUKEwjVkuvXiLj9 AhVURWwGHX w CC0AQ_AUo AXoECAQQAw & biw=1600 & bih=789 & dpr=1#imgrc = K0uLMuLy4a OiKM
7. https://www.google.com / search?q = bell%27s +palsy & rlz=1C1UEAD_enIN1021 IN1021& source=lnms & tbm=isch & sa=X & ved = 2ahUKEwjVkuvXiLj9 AhVURWw GHXwCC0 AQ_AUoAXo ECAQQAw & biw =1600 & bih=789 & dpr=1# imgrc =- MJ2TY v DKeotpM