TANTIA UNIVERSITY JOURNAL OF HOMOEOPATHY AND MEDICAL SCIENCE
Website- www.tjhms.com Email : tujhms@tantiauniversity.com
Peer-Reviewed Journal, E-ISSN: 2581-8899, P-ISSN: 2581-978X
Volume 8|Issue 1|Jan. –March 2025|

REVIEW ARTICLE

BELL'S PALSY – CLINICAL ANATOMY OF CRANIAL NERVE VII AND HOMOEOPATHY

Hemlata Singhal
Professor, Department of Anatomy, Homoeopathic Medical College, UP

Received- 15/03/2025
Revised- 28/03/2025
Accepted– 30/03/2025

Key Word- Bell's Palsy, Facial Nerve, Cranial Nerve VII, Anatomy

Corresponding Author:- Hemlata Singhal

Abstract

Bell's palsy is a condition that causes sudden facial weakness or paralysis, typically affecting one side of the face. While the exact cause is unknown, it is believed to be linked to viral infections. The progression of the disease involves sudden onset, peak severity, and gradual recovery. Symptoms include facial droop, difficulty with facial expressions, drooling, pain, sensitivity to sound, headache, loss of taste, and changes in tear and saliva production. Homeopathy offers individualized and effective treatment for Bell's palsy, with remedies such as Causticum, Belladonna, Aconite, Hypericum, and Gelsemium providing relief and promoting recovery.

INTRODUCTION

Bell's palsy is named after Sir Charles Bell (1774–1842), a Scottish surgeon, anatomist, and neurologist. He was one of the first to describe the anatomy and function of the facial nerve (cranial nerve VII) and its role in facial movement.

Bell's palsy is an acute, idiopathic, mononeuropathy affecting the facial nerve (cranial nerve VII), leading to sudden unilateral weakness or paralysis of the muscles of facial expression on one side of the face. It is the most common cause of peripheral facial nerve paralysis, occurring

without an identifiable cause such as trauma, stroke, or tumor.

The condition is thought to result from inflammation and swelling of the facial nerve, often triggered by viral infections (especially Herpes simplex virus type 1), leading to nerve compression within the facial canal (Fallopian canal) in the temporal bone. This compression disrupts nerve function, causing muscle weakness, loss of facial expressions, and impaired taste sensation, etc

Bell's palsy is typically self-limiting, with most patients recovering fully within weeks to months. However, in some cases, residual weakness or synkinesis (abnormal movement of facial muscles) may persist. (1-2)

Causes

The exact cause of Bell's palsy is unknown, but it is believed to result from inflammation, swelling, or compression of the facial nerve (cranial nerve VII), often triggered by:

- **Viral Infections** – Reactivation of viruses like Herpes simplex virus (HSV-1) or Varicella-zoster virus (VZV) causes inflammation and swelling of the facial nerve, leading to temporary paralysis.
- **Autoimmune Disorders** – Conditions like Guillain-Barré syndrome and sarcoidosis can trigger an immune response that mistakenly attacks the facial nerve, causing weakness or paralysis.
- **Ischemic or Vascular Causes** – Diseases such as diabetes mellitus and hypertension can damage small blood vessels supplying the facial nerve, leading to nerve dysfunction.
- Neurological & Inflammatory Conditions like multiple sclerosis can lead to facial nerve inflammation, mimicking Bell's palsy symptoms.
- **Mechanical & Traumatic Causes** – Direct trauma, surgery, or tumors affecting may compress or damage the nerve at the facial nerve pathway at the following sites i.e.- internal acoustic meatus, middle ear, facial nerve canal and parotid gland during its course.
- Pregnancy & Hormonal Factors – Increased fluid retention and hormonal changes, especially in the third trimester, can cause temporary facial nerve swelling and dysfunction.

Anatomy Of The Facial Nerve (Vii Cranial Nerve)

The facial nerve (VII Cranial Nerve) originates from the pons and enters the internal acoustic meatus within the temporal bone. It travels through the facial canal (Fallopian canal), forming the geniculate ganglion, where it gives off the greater petrosal nerve (lacrimation), nerve

to stapedius (sound modulation), and chorda tympani (taste and salivation). It exits the skull via the stylomastoid foramen, then passes through the parotid gland (without innervating it) and divides into five motor branches: Temporal, Zygomatic, Buccal, Mandibular, and Cervical, which control the muscles of facial expression. (3-4)

Clinical Anatomy Of (Vii Cranial Nerve)

Bell's palsy is characterized by a sudden onset of unilateral facial weakness due to lower motor neuron (LMN) paralysis of the facial nerve (cranial nerve VII). Symptoms peak within 48–72 hours.

- Unilateral facial paralysis (involves entire half of the face).
- Inability to close the eye (lagophthalmos) on the affected side.
- Drooping / Sagging of angle of the mouth with difficulty smiling or blowing air.
- Loss of forehead wrinkles (unable to raise eyebrows).
- Flattened nasolabial fold on the affected side.
- Loss or reduced taste sensation from the anterior two-thirds of the tongue (due to chorda tympani involvement).
- Hyperacusis (increased sensitivity to sound) due to paralysis of the stapedius muscle.
- Decreased tear production as the facial nerve also innervates the lacrimal gland, which produces tears. When Bell's palsy affects this nerve, it can reduce tear production, leading to dry eye.
- Incomplete Eyelid Closure - Paralysis of the orbicularis oculi muscle prevents complete eyelid closure. This leads to: Increased tear evaporation because the eye remains partially open.
- Poor Tear Drainage - People with Bell's palsy may experience excessive tearing (epiphora) because: Tears cannot drain properly through the nasolacrimal duct due to improper eyelid positioning. The lower eyelid may droop (ectropion), preventing tears from reaching the tear drainage system, causing them to spill over the cheek. Dry mouth or excessive salivation due to impaired control of the submandibular and sublingual glands.
- Ear pain (retroauricular pain), often an early symptom.
- Facial numbness (though true sensory loss is rare) (5)

Key Clinical Features To Differentiate From Stroke

Unlike a stroke, Bell's palsy affects the entire half of the face, including the forehead, because it is a lower motor neuron (LMN) lesion.

E-ISSN: 2581-8899, P-ISSN: 2581-978X

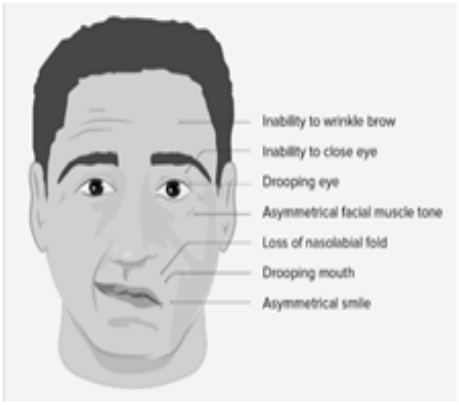

Fig 1: Clinical features of Bell's Palsy (6)

Stroke (UMN lesion) spares the forehead due to bilateral upper motor neuron innervation. In contrast, a UMN stroke results from damage to the corticobulbar tract in the brain, often due to a stroke involving the middle cerebral artery (fig 2).

The key distinguishing feature is **forehead sparing**—patients with a stroke can **still raise their eyebrows and wrinkle their forehead**, but they will have weakness in the **lower half of the face on the opposite (contralateral)** side. Unlike Bell's palsy, a UMN stroke often presents with **other neurological symptoms**, such as **hemiparesis, dysphagia, or speech difficulties.** Recovery from Bell's palsy is usually gradual over weeks to months, whereas stroke outcomes depend on severity and timely intervention. A simple clinical clue is: if the forehead is spared, think stroke; if the whole half of the face is affected, think Bell's palsy.

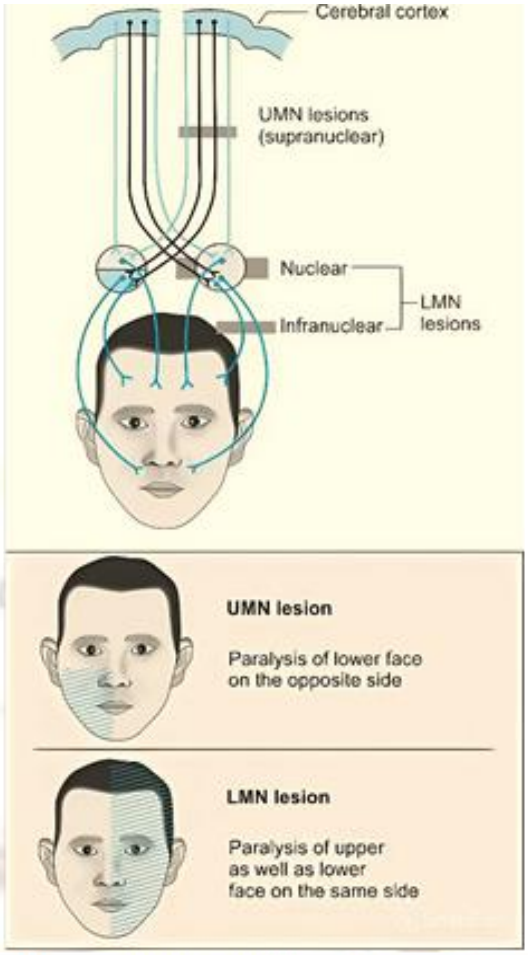

Fig 2: UMN vs LMN lesion of CN VII (7)

HOMOEOPATHY MEDICINES IN BELL PALSY

1. Aconitum Napellus (Aconite)

- Best for sudden onset of Bell's Palsy, especially after exposure to cold wind.
- Symptoms include numbness, tingling, and facial stiffness.
- Useful when the condition appears after fright or shock.

2. Belladonna

- Best for sudden inflammation of the facial nerve.
- Face appears red, swollen, and hot.
- Throbbing pain, sometimes accompanied by high fever.

E-ISSN: 2581-8899, P-ISSN: 2581-978X

3. Causticum

- Indicated for long-standing facial paralysis or slow recovery.
- When facial muscles feel weak and stiff.
- Suitable if tears flow from the affected eye involuntarily.
- Aggravation from cold weather and improvement with warmth.

4. Hypericum Perforatum

- Useful when facial paralysis occurs after nerve injury.
- Severe nerve pain and tingling sensation.
- Burning and shooting pains along the facial nerve.

5. Gelsemium

- Indicated when weakness and heaviness of facial muscles are prominent.
- Drooping eyelids and difficulty in closing the eye.
- Suitable for nervous individuals or cases linked to stress.

6. Nux Vomica

- Beneficial if Bell's Palsy is triggered by cold weather, stress, or alcohol.
- Best for hypersensitive, irritable and workaholic individuals.
- Accompanied by digestive disturbances.

7. Agaricus Indications

- Stiffness of facial muscles on one side, with grimacing or twitching occurring in other parts of the face.
- This remedy is often indicated for excitable individuals with overacute senses and deep anxiety about their health. (8-9)

CONCLUSION

Bell's palsy is a neurologic condition marked by sudden, unilateral facial paralysis resulting from dysfunction of the facial nerve (cranial nerve VII). While it can be distressing due to its abrupt onset and visible impact on facial expression, the prognosis is generally favorable, with most patients experiencing partial to full recovery within weeks to months. Accurate diagnosis, especially distinguishing it from upper motor neuron lesions like stroke, is critical to ensure appropriate management and to alleviate patient anxiety.

While modern medicine offers supportive treatments such as corticosteroids, antivirals, and physiotherapy, homoeopathy provides a valuable complementary approach by addressing the condition holistically. Homoeopathic remedies are selected based on a detailed understanding of the individual's physical, emotional, and constitutional state. Homoeopathic

E-ISSN: 2581-8899, P-ISSN: 2581-978X

medicines offer targeted support by stimulating the body's innate healing capacity, reducing inflammation, promoting nerve regeneration, and alleviating associated symptoms like pain, stiffness, and anxiety.

Moreover, homoeopathy's individualized methodology ensures that each patient receives a remedy best suited to their unique presentation — whether the paralysis followed exposure to cold wind, emotional stress, physical trauma, or nerve injury. This makes homoeopathy particularly appealing for chronic or recurring cases, or when conventional treatments offer limited relief.

In conclusion, Bell's palsy requires a multidisciplinary perspective for optimal management. Incorporating homoeopathy into the treatment regimen can enhance recovery. Further research and clinical studies may strengthen the evidence base for homoeopathy's role in treating facial nerve disorders, potentially offering new insights into integrative care approaches for neurological conditions like Bell's palsy.

REFERENCES

1. Singh, Vishram. Textbook of Clinical Neuroanatomy, 5th Edition
2. Hohman MH, Warner MJ, Varacallo MA. Bell Palsy. [Updated 2024 Oct 6]. In:
3. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025
4. Borley and Henry Gray, Gray's Anatomy: The Anatomical Basis of Clinical Practice. Livingstone/Elsevier
5. Snell, R.S. Clinical Neuroanatomy, 7th Edition
6. Singh, Inderbir. Textbook of Neuroanatomy, 2nd Edition
7. Bell's Palsy, Disease and Symptoms, Mayoclinic.com
8. Bell's Palsy, Healthline.com
9. Boericke W. New Manual of Homoeopathic Materia Medica and Repertory; 2000
10. Kent JT. Lectures on Homoeopathic Philosophy. Kolkata: Rup Publication; 2013

How to Cite this Article- Singhal H., Bell's Palsy – Clinical Anatomy Of Cranial Nerve Vii And Homoeopathy. TUJ. Homo & Medi. Sci. 2025;8(1):44-49.

Conflict of Interest: None **Source of Support: Nil**