



AN AYURVEDIC APPROACH TO ARDITA (BELL'S PALSY): A CASE REPORT

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ABSTRACT

Ardita (Bell's palsy) is considered as one of the 80 *Vataja Nanatmaja Vyadhis* in Ayurvedic classics. In modern-day science, it could be correlated with the disorder of Unilateral facial paralysis. Bell's palsy, additionally termed as Idiopathic facial paralysis (IFP), is the common cause of unilateral facial paralysis. Facial palsy is a neurological ailment wherein the 7th cranial nerve gets affected. The facial nerve conveys sensory and motor fibres with parasympathetic nerve fibres. Damaged facial nerve (VII) consequences are functional loss of facial muscle, resulting in facial impairment. The current study has been performed to discover the effective Ayurvedic management of Bell's palsy in a 16-year-old male patient who approached Ayurveda Mahavidyalaya and Hospital, Hubballi. He was diagnosed with *Ardita* (Bell's palsy) – Left-sided Bell's Palsy and managed with *Karpasasthyadi taila mukhabhyanga* (Facial oil massage), *Panasa patra sweda* (Jackfruit leaf sudation) followed by *nasya* (nasal drops) with *Ksheera bala taila* 101 for 10 days and confirmed well-sized development in the signs and symptoms with no adverse effects. The house-Brackmann facial nerve grading system was used for the patient's pre-test and post-test assessment.

Keywords: Ayurveda, *Ardita* (Bell's Palsy), unilateral facial paralysis, *Vatavyadhi* (disorders of vata dosha), *Mukhabhyanga* (Facial massage), *Nasya* (nasal drops), *Sweda* (Sudation therapy)

INTRODUCTION

The face is the reflection of thoughts. Facial expression plays an important role in communication in our everyday lives. Facial expressions permit individuals to share messages through the use of their eyes, eyebrows, mouth and group of facial muscles. This ability of facial expression and speech gets hampered in *Ardita* (Bell's palsy), one among the eighty *Vataja Nanatmaja vyadhi* as enumerated by *Acharya Charaka*¹

Ardita (Bell's palsy) is a medical condition inflicting *vakrata* (deviation) of *mukha ardha* (half of the side of the face) and leads to facial asymmetry and mal-function, i.e. *Ardhe hatham iti arditam*. *Acharya Vagbhata* has stated it as *Ekayaam* (lack of movement related to one-half of the face or half of the body with half of the face)²

In line with *Charaka*, it affects *sharirardha* (half of the body) whilst half of the face is affected in *Ardita* (Bell's palsy), according to *Acharya Sushruta*³.

The causes of *Ardita* (Bell's palsy) have also been explained in classical texts, including speaking loudly, immoderate guffawing, chewing tough meals, yawning, sporting heavy loads, adopting incorrect postures while sleeping, exposure to cold wind and many others. These *nidanās* (causative factors) cause vitiation of *Vata dosha* (dosha regulating movement and cognition), leading to the manifestation of signs and symptoms of *Ardita* (Bell's palsy). The signs and symptoms consist of distortion of the affected side of the face, deviation of mouth to the normal side, shaking of the head, obstruction to speech, problems of eyes, and aches in the neck, chin and tooth of the affected side, etc.

Bell's palsy, additionally termed idiopathic facial paralysis (IFP), is the most common cause of unilateral facial paralysis. It accounts for about 60-75% of cases of acute unilateral facial paralysis. It is triggered due to the 7th cranial nerve paralysis, The facial nerve. Salivary and lacrimal glands are managed with the aid of this nerve. The motor function of the peripheral facial nerve controls the upper and lower facial muscles. The symptoms are weakness of the facial muscles, poor eyelid closure, aching of the ear

or mastoid, and taste alteration. Epidemiological evidence⁴ indicates that 15-23 people per 1,00,000 are affected each year, with a recurrence rate of 12%. Medical treatment for Bell's palsy encompasses corticosteroid therapy, Antiviral agents, and topical ocular lubricants, while surgical treatment consists of facial nerve decompression, suborbicularis oculi fat lift, tarsorrhaphy and so on. In Ayurveda, treatments described for *Ardita* (Bell's palsy) are *Abhyanga* (oil massage), *Sweda* (sudation), *Navana Nasya* (nasal drops) and different *vatasya upakrama* (control of diseases of *vata* - *Dosha* regulating movement and cognition). Keeping this in view, a 16-year-old *Ardita* (Bell's palsy) patient from the IPD of Ayurveda Mahavidyalaya and hospital, Hubballi, was treated with *mukha abhyanga* (facial oil massage) with *Karpasasthyadi taila*, *Ksheera Dhuma*, *Panasa patra sweda* (Jackfruit leaf) followed by *nasya karma* (nasal drops) with *Ksheera bala taila* 101.

Case Details:

A male patient aged 16 years was apparently healthy, but on 11/7/24 he observed a slight deviation of mouth towards the right, observed deviation of mouth while speaking, and dribbling of water while drinking water through a left angle of mouth. A few days before the incident, he travelled more at night (getting exposed to cold air). He neglected thinking it would get corrected itself, but even after two days, it did not improve; on 13/7/23, the patient visited Ayurveda Mahavidyalaya Hospital, Hubballi, with the above-mentioned complaints. After relevant examination, he was diagnosed as Bell's Palsy. To avoid facial dysfunction, he was advised to get admitted to the hospital for 10 days. There was no record of any co-morbidities, allergic history, past medications or any surgical history.

Past Medical and Family History :

Nothing significant

Personal history :

Diet – Mixed diet (non-veg – twice a week)

Bowel- Clear (1time/day)

Appetite – Good

Micturition – Regular (3-4times/day)

Sleep – sound, No day sleep.

Occupation – Painter

Nidana Panchaka

Nidana – Exposure to cold air, cold water baths, and food consumption.

Poorvaroopa – Avyakta

Rupa – Vakraata of Mukha Ardha (towards the right side)

Upashaya – Residing in the warmth climate

Anupashaya – Cold, dry weather and food.

Samprapthi –

Nidana sevana

(Sheetala paana anna-cold water drinking and cold food intake) , sheeta vayu sevana(exposure to cold wind) ,ratrijagarana(staying awake at night) and Vishamashana(Unhealthy dietetics)



Vata prakopa (Aggravation of dosha regulating movement and cognition)



Sthana samshraya in mukhaardha of vama bhaga
(Doshas get seated on the left side of the face)



Mukha ardha vikriti
(Deviation of the left half of the face)



In vyakta avastha - Aridita vyadhi utpatti
(Manifestation of signs and symptoms of the disease –Bell's Palsy)

Samprapthi Ghataka –

Dosha – Vata pradhana tridosha

Dooshya – Rasa,Rakta,Mamsa,Sira and snayu

Agni – Vishamagni

Ama – Jataragni and Dhatwagni mandya janya

Srotas –Rasavaha,Raktavaha,Mamsavaha Srotas

Srotodushti prakara – Sanga and Vimargagamana

Udbhavasthana –Pakvashaya

Sancharasthana – urdhwajatru

Vyaktasthana – Mukhaardha

Vyadhi swabhava – Ashukari

Sadhya Asadhya – Sadhya

Ashta sthana pariksha

Nadi- 78bpm

Mootra – Niyamita

Mala- Niyamita

Jihwa- Alipta

Shabdha – Prakruta

Sparsha – Prakruta

Drik – Prakruta

Akruti - Madhyama

Examination

On General Examination:

General condition: Dusky, Built - Moderately built, Nourishment - Moderately nourished.

Pulse – 78beats/min, Respiratory rate – 18cycles/min, Blood Pressure - 120/80mmHg, Temperature – 98°F

Pallor – Absent, Icterus – Absent, Lymphadenopathy – Absent, Cyanosis – Absent, Clubbing – Absent, Edema – Absent

Respiratory System:

Inspection - Bilaterally Symmetrical chest movements on breathing, No surgical scars, redness, rashes
 Palpation – No local tenderness and palpable mass felt.

Percussion – Resonant note heard.

Auscultation – No Abnormal bronchovesicular sounds heard

Gastro Intestinal Tract:

Inspection – No surgical scar marks, scaphoid-shaped abdomen

Palpation – No palpable mass and tenderness felt.

Percussion – the fluid thrill and shifting dullness absent.

Percussion – Normal bowel sounds heard 8/min

Cardiovascular System:

Inspection

No surgical or scars were seen

Chest Shape - Normal

Position of trachea – Central

Apex beats – not visible dilated and engorged veins

Palpation

Apex beats are palpable

Trachea – centrally placed

Percussion

Cardiac dullness heard

Auscultation – S1 S2 heard, no added sounds or murmurs.

Central nervous system examination

- Higher Mental Functions – Intact; consciousness- conscious, well oriented to time, place and person; memory (Recent and Remote) –Intact; Intelligence – Intact; Hallucination and Delusion – Absent; speech – slightly difficult.

- Cranial nerve examination –

A neurological examination of all cranial nerves was performed and found intact except for the facial nerve. Cerebellar examinations were also within normal limits.

- 7th cranial nerve examination –

Motor

Eyebrow Raising	Difficulty on the left side of the face
Forehead Frowning	Difficulty on the left side of the face
Eye closure	Incomplete closure of left eye
Clenching of teeth	Mouth deviates to the right side.
Blowing of cheek	Leakage of air through the left angle of the mouth
Drooping of the angle of the mouth	Left angle of mouth
Bells Phenomenon	Present on the Left side.
Smile	Deviation of the mouth towards the right
Nasolabial fold	Mild loss on left side

Sensory – Taste sensation in the anterior 2/3rd of the tongue is intact.

- Deep reflexes such as Triceps, Biceps, Supinator, Knee jerk, plantar reflex and ankle jerk were normal.
- Muscle power and muscle tone in all limbs were also normal.

Therapeutic Intervention :

DATE RANGE	PROCEDURES DONE
13/07/2024 – 15/07/2024	1. <i>Mukha abhyanga</i> (Facial oil massage) with <i>Karpasasthyadhi taila</i> . 2. <i>Ksheera Dhuma</i> - 1 sitting per day 3. <i>Nasya</i> (nasal drops) with <i>Ksheera Bala</i> 101 3 ^o - 3 ^o
16/07/2024 -23/07/2024	Continued 1 and 3 4. <i>Sthanika panasa patra sweda</i> (Jackfruit leaf sudation) – 1 sitting per day
ORAL MEDICATIONS	
13/07/2024 – 23/07/2024	1. <i>Tab. Dhanadhanayanadi Kashaya</i> tab 2. <i>Tab. Yogaraja Guggulu</i>
	1-0 -1 After food 1-0-1 After food

	3. <i>Kalyanaka Gulam</i>	1tsf-0-1tsf After food With warm water.
24/07/2024 – 6/08/2024 (follow-up period)	Continued 2 4. <i>Tab Brihat vata chintamani rasa</i> plain 5. <i>Ashwagandarishtha</i>	1-0-0 After food 15ml -0-15ml With warm water.
Pathya(healthy diet and activities)	<i>Sukoshna bhojana</i> (warmth food)	
Apathya(unhealthy diet and activities)	<i>Sheethambu</i> (cold water), <i>Rookshanna</i> (dry food), <i>Katina Bhakshya</i> (hard food items), <i>Ucchair bhashya</i> (speaking loudly)	

Comparison of Subjective Parameters

Parameters	Before Treatment	After 10 days of Treatment	After 25days
Deviation of the mouth towards the right	Visible deviation of mouth Grade IV	Improvement in the deviation of mouth Grade II	Normal Grade I
Nasolabial fold	Mild loss of Nasolabial fold from the left side of the face Grade II	The nasolabial fold is completely seen while attempting to smile. Grade I	Normal Grade I
Speech	Deviation of the mouth towards the right while talking Grade IV	Reduced deviation of mouth while talking Grade II	Normal Grade I
Raising of Eyebrows	Difficulty in raising eyebrows on left side Grade IV	Easily raises eyebrows Grade II	Normal Grade I
Frowning of Eyebrows	Difficulty in frowning of eyebrows on left side Grade IV	Able to frown the eyebrows Grade I	Normal Grade I
Eye Closure	Incomplete closure of the left eye Grade IV	Complete closure of the eye is possible Grade I	Normal Grade I
Dribbling of water	Dribbling of water from the left angle of mouth while drinking water Grade III	No dribbling of water from the left angle of mouth while drinking water Grade I	Absent Grade I
Clenching of teeth	Deviation of the mouth towards the right Grade IV	Improvement in the angle of deviation Grade II	Normal Grade I
Blowing of cheek	Slightly Air leaks out from the left angle of the mouth Grade III	Normal Grade I	Normal Grade I

The above table uses the house-Brackmann facial nerve grading system to grade the patient's symptoms.

House Brackman grading

	Before Treatment	After 10 days of Treatment	After 25days
The right side of the face	Grade IV	Grade II	Grade I
Right Side of face	Grade I (normal facial function in all areas)	Grade I (normal facial function in all areas)	Grade I



Before(13/07/2024)



After(6/08/2024)



Before(13/07/2024)



After (23/07/2024)



Before (13/07/2024)



After (6/08/2024)

Assessment Criteria ⁵

Grade	Defined by
I – Normal	Normal facial Function in all areas.
II – Mild Dysfunction	A slight weakness is noticeable only on close inspection; there may be very slight synkinesis. At rest: normal symmetry and tone Motion: Forehead –Moderate to good function, ability to move corners of the mouth with maximal effort and slight asymmetry. No synkinesis, contracture, or hemifacial spasm.
III – Moderate dysfunction	There are obvious but not disfiguring differences between the two sides, no functional impairment, noticeable but not severe synkinesis, contracture, and hemifacial spasm. At rest: normal symmetry and tone. Motion: slight movement of the forehead, ability to close the eye with maximal effort and obvious asymmetry, ability to move corners of the mouth with maximal effort and obvious asymmetry. Patients who have obvious but no disfiguring synkinesis, contracture, and hemifacial spasm are grade III regardless of the degree of motor activity
IV – Moderately severe dysfunction	Obvious weakness and disfiguring asymmetry. At rest: normal symmetry and tone. Motion: no movement of the forehead, inability to close the eye completely with maximal effort. Patients with synkinesis, mass action, and hemifacial spasms severe enough to interfere with function are grade IV regardless of motor activity.
V – Severe dysfunction	Only barely perceptible motion. At rest: possible asymmetry with a hang of the corner of the mouth and decreased function or absence of nasal labial fold. Motion: No movement of the forehead, incomplete eye closure, only slight movement of the eyelid with maximal effort, and slight movement of the corner of the mouth. Synkinesis, contracture and hemifacial spasms are usually absent.
VI-Total Paralysis	Loss of tone, asymmetry, no motion; no synkinesis, contracture, or hemifacial spasm

DISCUSSION

Vata (*Dosha* regulating movement and cognition) governs all of the flow and movements within the body. *Ardita* (Bell's palsy) is an ailment resulting from vitiated *Vata dosha*. *Vatasypakrama* can be the line of treatment principle as per Ayurveda. Here, we have adopted *Mukha Abhyanga* (Facial oil massage) with *Karpasasthyadi taila*, *Ksheeradhooma*, *Panasa patra sweda* (Jackfruit leaf sudation) and *Nasya karma* (nasal drops) with *ksheera Bala taila* 101.

Abhyanga (Facial oil massage) gives passive exercise to the facial muscle tissues, stimulates the nerves and strengthens the muscles. *Mukha Abhyanga* with *Karpasastyadi Taila*⁶ was done, which has a direct indication in *Ardita Vyadhi*. *Karpasastyadi Taila* includes drugs which are having *Teekshna guna* (strong in nature) and *Ushna Veerya* (hot potency). It does *Vedanahara* (analgesic), *Sarvanilapaha* (Alleviates all five types of *dosha* regulating movement and cogni-

tion), *Shothahara* (anti-inflammatory) and provides energy to the facial muscle tissues.

Swedana (sudation therapy) is one of the prime treatment modalities defined in *Vata vyadhi chikitsa*⁷. *Swedana has teekshna* and *ushna guna*. Its primary actions, like *Sthambhagna* (relieves stiffness), *Gouravagna* (relieves heaviness), and *sheetaghna*, are quite opposite to the symptoms of *vata vyadhi*. *Swedana* (sudation therapy) increases blood flow to the affected region, strengthens facial muscle tissue, and improves tissue potential within the body.

Abhyanga (oil massage) followed by *Snigdha Sweda* (sudation therapy) in the form of *Ksheera Dhooma* relieves *Stabdhatā* through *Ushna Guna*, *Rukshata* by meaning *Snigdha Guna*, *Sthanika Srotovivarana* by means of *Ushna Guna*, *Mridutva* and *Balya* effects are accomplished by steam of mixture of *Ksheera* and *Balamoola kwatha*.

Dhooma of *Ksheera* with *Balamoola Kashaya* is among the excellent *Brimhana Chikitsa*, which can also normalize *Bodhaka Kapha Vikruti*.⁸

*Panasa Patra Sweda*⁹ (Jackfruit leaf sudation) was later adopted. *Panasa Patra Swedana Karma* before the *Nasya* (nasal drops) relieves Sheeta Guna (cold nature) of Vata Dosha (Dosha regulating movement and cognition), and it has *Balya* (Strengthening), *Brumhana* (Nourishing), *Mamsala* (Muscular growth) and *Santarpana* properties offers strength to facial muscles. *Panasa Patra* has beta sitosterol as an active principle. It is a steroid and precursor of an anabolic steroid, boldenone. The probable topical absorption of beta-sitosterol in lipid base can be substantiated through the pharmacokinetics of boldenone. It also enhances local microcirculation by dilating blood vessels and increasing blood flow to the peripheral arterioles, accelerating drug absorption and resulting in fast improvement.¹⁰

According to *Charaka*, *Nasa* is the gateway of *Shiras*. The drug administered via nostrils reaches *Shringataka Marma* via *Nasa Srotas* (Channels of the nose), spreads in the *Murdha*, reaches *Netra marmas* (eye), *Shrotra* (ear), *Kantha* (throat), *Shira Mukhas* (opening the vessels, etc.) and absorb morbid *Doshas* from supra clavicular area and gets rid of only the morbid *Doshas* liable for producing the ailment from the head. *Aridita* (Bell's palsy) is mainly the *vata dosha* disease of the supra clavicular area. Among *Nasya* (nasal drops), the *Snehana* type of *Navana nasya* is considered the best type and offers better results. For this reason, *Ksheerabala Taila 101 Nasya* was performed.

Bala (*Sida cordifolia*) in the *Ksheera bala taila* is kept amongst *Balya* (Strengthening) *Mahakashaya* by *Acharya Charaka* and *Vata* alleviating drugs by *Acharya Sushruta*. Those properties now not only help relieve *Vata* (*Dosha* regulating movement and cognition) but also nourish nerves. Because of its ephedrine content, it possesses psycho-stimulant properties, affecting the central nervous system¹¹. *Tila Taila* (Sesame Oil) provides a lipophilic base to the *Nasya* (nasal drops) drug, which helps in its better absorption, as lipid-soluble substances have greater affinity through the cellular walls of nasal mucosa¹². It also possesses anti-inflammatory and

antioxidant properties. *Acharya Charaka* has indicated it in *Vataja* disorders.¹³

CONCLUSION

In this study, *Sthanika abhyanga* (Facial oil massage) with *Karpasasthyadi taila*, *Sthanika panasa patra sweda* (Jackfruit leaf sudation), *Navana nasya* (nasal drops) with *Ksheera Bala 101* was employed and has shown significant results in all parameters. The treatment employed here acts as *Vata shamana* (Alleviation of *dosha* regulating movement and cognition), Alleviation of *Sthabdatha* (Stiffness) due to *Ushna guna* (Hot nature) of *Swedana* (Sudation therapy). *Navana nasya* alleviates the *Vata dosha* (dosha regulating movement and cognition) due to the *Bruhmana* (Nourishing) effect and disintegrates the *Samprapthi* (Pathogenesis) involved in *Aridita* (Bell's Palsy).

REFERENCES

1. Dridhabala C. Caraka Samhita by Agnivesha with Ayurveda Dipika commentary of Chakrapanidatta. Vaidya Jadavji Trikamji Acharya, editor. Varanasi Chowkhamba Krishnadas Academy, 2015; 738.
2. Acharya Vriddha Vagbhata, Astanga Samgraha, edited with Saroj Hindi commentary by Ravi Dutt Tripathi, published by Chaukhamba Sanskrit Pratishthana Varanasi, UP; Edition 2003, Sutrasthana, chap.3:63, pg. 50.
3. Sushruta of Sushruta Samhitha with Nibandha Sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana, edited by Vaidya Yadavji Trikamji Acharya, Nidanasthana, 1st Chapter, verse no 68-73
4. Rajangam J, Lakshmanan AP, Rao KU, Jayashree D, Radhakrishnan R, Roshitha B, Sivanandy P, Sravani MJ, Pravalika KH. Bell Palsy: Facts and Current Research Perspectives. CNS Neurol Disord Drug Targets. 2024;23(2):203-214. doi:10.2174/1871527322666230321120618. PMID: 36959147.
5. House, J.W., Brackmann, D.E. Facial nerve grading system. Otolaryngol. Head Neck Surg, [93] 146-147. 1985
6. Sahasrayogam, Text with English Translation by Dr.K.Nishteswar, Dr.R.Vidyanath, Taila Prakarana,

- Published by Chaukhamba Sanskrit series, Varanasi, page no 118.
7. Charaka Samhita of Agnivesha- elaborated by Caraka and Drdhabala with the Ayurveda Dipika commentary by Sri Chakrapanidatta edited by Vaidya Yadavji Trikamji Acharya reprint edition 2014 Varanasi Chaukhamba Surabharati Prakashan Chikitsa sthana 28-chapter 78 verse pp-620
 8. Dr Dingari Lakshmana Chary's "The Shalakyā Tantra II, Head and ENT diseases" Published by Smt D Jayashree, Hyderabad, Is Edition, August 2000.
 9. D. Sriman Nampoothiri, Yogamrutam, Vatavyadhi chikitsa verse 4, Vidyarambham Publishers, Edition 6, 2014, p 234.
 10. Sindhu H.V, Abdul Khader. Arditā and its Ayurvedic Management- A True Story. J Ayurveda Integr Med Sci 2024;3:260-266
<http://dx.doi.org/10.21760/jaims.9.3.42>
 11. Adam C Munhall, Steven W Johnson. Dopamine-mediated actions of ephedrine in the rat substantia nigra. Brain Research. 2006. 1069 (1):96-103.
 12. Srikanth KY, et. Al. Pharmacodynamics of Nasya Karma - A Review Article. IJRAP. 2011;29(1)24-26.
 13. Caraka. Caraka Samhita. Kashi Nath Shastri, Gorakh Nath Chaturvedi, editors. 1st ed. Varanasi: Chaukhamba Bhartiya Academy; 2007. Sutrasthana, 13/44. p.187.

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