Advances in Bioresearch

Adv. Biores., Vol 16 (4) July 2025: 243-250 ©2025 Society of Education, India Print ISSN 0976-4585; Online ISSN 2277-1573 Journal's URL:http://www.soeagra.com/abr.html CODEN: ABRDC3 DOI: 10.15515/abr.0976-4585.16.4.243250



CASE STUDY

Ayurvedic Management of *Ardita* (Bell's Palsy): A Case Study of Restorative Therapies for Facial Paralysis

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ABSTRACT

Ardita is one of the 80 Vataja Nanatmaja Vyadhis described in Ayurveda, caused by an imbalance of Vata dosha. It leads to facial asymmetry and unusual facial muscle movements. Common symptoms include difficulty chewing, a crooked nose, stiffness in the eyes, weak speech, and hoarseness. A 25-year-old male was diagnosed with Ardita, experiencing weakness on the right side of his face, trouble chewing, and slight drooping of his right eyelid. His treatment involved Panchakarma therapies such as Nasya, Shiropichu, Abhyanga, Swedana, and herbal medicines to restore balance to Vata dosha. The therapies resulted in noticeable improvements, including reduced pain, better facial muscle strength, increased movement, and an overall better quality of life. This case demonstrates the potential of Ayurvedic Shodhana and shamana treatments in managing Ardita effectively.

Keywords: Ardita, Bell's palsy, Nasya, Shodhna, Facial paralysis, Vata Vyadhi

Received 20.03.2025 Revised 21.05.2025 Accepted 19.06.2025

How to cite this article:

Surbhi T, Manjiri K, Shalaka M. Ayurvedic Management of *Ardita* (Bell's Palsy): A Case Study of Restorative Therapies for Facial Paralysis. Adv. Biores., Vol 16 (4) July 2025: 243-250.

INTRODUCTION

Ardita is one among the 80 vataja nanatmaja vyadhis [1]. It is primarily caused by the aggravation of Vata dosha. The condition manifests as facial asymmetry due to the involvement of the nose, evebrows, forehead, eyes, and jaws, leading to visible distortion. Symptoms include abnormalities in facial muscle movement, with the bolus of food moving irregularly within the mouth, a crooked nose, and stiffness of the eyes. Additional symptoms include a curved tongue when raised, feeble and impeded speech, hoarseness of voice, loose teeth, and impaired hearing [2]. In modern medical science, Ardita can be correlated with Bell's palsy, a neurological disorder causing paralysis or weakness on one side of the face. Facial paralysis often results from damage or dysfunction in the nerve that controls facial muscles. Bell's palsy is the leading cause of this condition. Symptoms of Bell's palsy include Sudden weakness or paralysis on one side of the face, A drooping eyebrow and mouth, drooling from one side of the mouth, and Difficulty closing one eyelid, which causes eye dryness [3]. Epidemiological data indicates that annually, between 15 and 23 individuals per 100,000 are affected by this condition, with a recurrence rate of 12%. The condition may result from ischemic compression of the seventh cranial nerve, potentially due to viral inflammation [4]. The Ayurvedic treatment for Ardita (facial paralysis) includes Murdhini Taila (application of medicated oil on the head), Nasya (nasal administration of medicated oil), Abhyanga (therapeutic oil massage), and Swedana (fomentation or sweating therapy). These therapies help balance Vata dosha, improve circulation, and restore normal function to the affected areas [5]. This case involves the presentation of Ardita, who was treated with Ayurvedic interventions, which yielded favourable clinical outcomes.

CASE REPORT:

Patient Information-

Name- ABC

AGE and Sex- 25 Years/Male

OPD No.- 24004033

Religion-Christian

Chief Complaints-

- Right-sided facial weakness for 1 week
- Difficulty in chewing from the right side for 1 week
- Mild pain during chewing from the right side for 1 week

Past History-

History of present illness- The patient, a 25-year-old male, initially presented with good health but gradually developed mild pain, difficulty in chewing on the right side, and right-sided facial weakness over one week. The patient initially sought other treatments but experienced no relief. Consequently, the patient sought further treatment at Parul Ayurved Hospital.

Personal History-

Appetite- Normal, Bowel- Regular, Sleep- Disturbed due to pain, Addiction- None

ON EXAMINATION:

General Examinations-

- BP-122/86mmHg
- Pulse Rate- 80/min
- RR-15/min
- Gait- Normal
- Pallor- NA
- Clubbing- NA

Table 1: Otorhinolaryngological Examination before treatment

Otorhinolaryngological Examination		
B/L External Auditory Canal Normal		
B/L Tympanic Membrane	Intact	
Right Ear Pinna Normal		
B/L Nostrils	Normal	
Throat Normal		
Angle of Mouth Deviated to the left side		
Cringing of Mouth Asymmetrical		

Table 2: Cranial Nerves Examination before treatment

Cranial Nerves Examination			
Oculomotor Nerve Mild drooping of the right eye			
Facial Nerve • Asymmetrical clenching of teeth predominantly on the right side			
 Weakness in blowing of cheeks on the right side 			
Mouth deviation to the left side			

Astavidha Pariksha:

• *Nadi*: 80/min

Mala: 2 times a day *Mutra*: 4-5 times a day

Jivha: Lipta Shabda: Aspshta

• Sparsha: Samsheetoushna

Druka: Nirmala Akriti: Madhyam Samprapti Ghataka:

• Dosha: Vata Pradhan Tridosha

• Dushya: Rasa, Rakta, Mamsa

• Srotas: Rasavaha, Raktavaha, Mamsavaha

Srotodushti: Sanga Adhistana: Mukhardha

Assessment Criteria:

- Otorhinolaryngological Examination
- Cranial Nerves Examination
- Sunnybrook Facial Grading System [6]

Table 3: Sunnybrook Facial Grading System

Component	Area	Scoring	Before	After	First Follow
			Treatment	Treatment	Up
Resting Symmetry		Compared to the normal side			
Symmetry .	Eye	Normal (0)	1	0	0
	2,0	Narrow (1)	-		
		Wide (1)			
		Eyelid surgery (1)			
	Cheek	Normal (0)	1	0	0
	(nasolabial fold)	Absent (2)			
		Less pronounced (1) More			
		pronounced (1)			
	Mouth	Normal (0)	1	0	0
		Corner dropped (1) Corner			
		pulled up/out (1)			
	Total Resting	The sum of scores is multiplied	3*5=15	0*5=0	0
	Symmetry	by 5.			
Symmetry of		Degree of muscle movement			
Voluntary		(Excursion compared to			
Movement		normal side)			
	Forehead	1 (No movement)	3	4	5
	Wrinkle (FRO)	5 (Full movement)			
	Gentle Eye	1 (No movement)	5	5	5
	Closure (OCS)	5 (Full movement)			
	Open Mouth	1 (No movement)	3	4	5
	Smile (ZYG/RIS)	5 (Full movement)			
	Snarl (LLA/LLS)	1 (No movement)	3	4	5
		5 (Full movement)			
	Lip Pucker	1 (No movement)	3	4	5
	(00S/00I)	5 (Full movement)			
	Total Voluntary	The sum of the above scores is	17*4=68	21*4=84	25*4=100
	Movement	multiplied by 4.			
Synkinesis		Involuntary Muscle			
		Contraction with each			
		movement			
	Forehead	0 (None)	1	0	0
	Wrinkle	1 (Mild)			
		2 (Moderate)			
	Contla	3 (Severe)	1	10	10
	Gentle Eye	0 (None)	1	0	0
	Closure	1 (Mild)			
		2 (Moderate) 3 (Severe)			
	Open Mouth	0 (None)	1	0	0
	Open Mouth Smile	1 (Mild)	1	U	U
	JIIIIC	2 (Moderate)			
		3 (Severe)			
	Snarl	0 (None)	1	0	0
	J.1011	1 (Mild)	_		
		2 (Moderate)			
		3 (Severe)			
	Lip Pucker	0 (None)	1	0	0
		1 (Mild)			Ī
		2 (Moderate)			
		3 (Severe)			
	Total Synkinesis	The sum of the above scores.	5	0	0
			•	•	

Table 4: Composite score of Sunnybrook facial grading

Composite Score			
Before Treatment After First F			
		Treatment	Up
(Voluntary Movement Score + Resting Symmetry Score)	68+15-5= 78	84+0-0= 84	100+0-0= 100
- Synkinesis Score			

Interpretation of Sunnybrook Facial Grading System:

Scores close to 100: Indicate near-normal or complete recovery of facial nerve function.

Scores in the mid-range (50-70): Reflect moderate dysfunction with significant voluntary movement but noticeable asymmetry or synkinesis.

Scores below 50: Suggest severe dysfunction with minimal voluntary movement and possibly pronounced synkinesis.

DIAGNOSIS:

Based on comprehensive assessment and clinical examination, the diagnosis of *Ardita* is established, which can be scientifically correlated with Bell's Palsy in modern medical terminology. This correlation is supported by the similarity in clinical presentations, such as unilateral facial paralysis, observed in both conditions.

TREATMENT PLAN:

Table 5: Shodhana Treatment

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Shodhana Treatment			
Procedure	Date	Number of days	
Urdwajatrugata Abhyanga with ksheerbala tail	08/02/24 to 20/02/24	13 days	
Sthanik Swedana	08/02/24 to 20/02/24	13 days	
Nasya with ksheerbala tail 101 10-10 drops in each nostril	08/02/24 to 20/02/24	13 days	
Shiropichu with ksheerbala tail for 45 min. f/b Talam with	08/02/24 to 20/02/24	13 days	
Kacchuradi churna			
After First Follow Up			
Pratimarsha Nasya with ksheerbala tail 101 2-2 drops in	01/03/24 to 19/03/24	19 days	
each nostril			

Table 6: Shaman medicine

Shaman Medicine			
Medicine	Dose	Anupana	Date
Ekangveer Rasa 250mg+Mahavata	1 Tsf BD	Luke warm water	08/02/24 to 20/02/24
Vidhvans Rasa 250mg+Sootshekhar Rasa			
125mg+Mahayograja Guggulu 500mg			
Ashwagandha+Shatavari Churna	1 Tsf BD	Luke warm milk	08/02/24 to 20/02/24
After First Follow Up			
Ekangveer Rasa 250mg+Mahavata	1 Tsf TID	Luke warm water	01/03/24 to 19/03/24
Vidhvans Rasa 250mg+Sootshekhar Rasa			
125mg+Mahayograja Guggulu 500mg			
Ashwagandha+Shatavari Churna	1 Tsf BD	Luke warm milk	01/03/24 to 19/03/24

RESULST AND DISCUSSION

A comparison of the clinical examination results before and after treatment highlights the observed changes or improvements brought about by the intervention.

Table 7: Otorhinolaryngological Examination before, after treatment and after the first follow-up

Otorhinolaryngological Examination					
Before Treatment After Treatment After First Follow Up					
B/L External Auditory Canal	Normal	Normal	Normal		
B/L Tympanic Membrane	Intact	Intact	Intact		
Right Ear Pinna	Normal	Normal	Normal		
B/L Nostrils	Normal	Normal	Normal		
Throat	Normal	Normal	Normal		
Angle of Mouth	Deviated to the left side	Slightly deviated to left side	Normal		

Table 8: Cranial nerve examination before, after treatment and after the first follow-up

Cranial Nerves Examination			
	Before Treatment	After Treatment	After First Follow Up
Oculomotor Nerve	Mild drooping of the right eye	Eye Normal	Eye Normal
Facial Nerve	 Asymmetrical clenching of teeth predominantly on the right side Weakness in blowing of cheeks on the right side Mouth deviation to the left side 	of teeth predominantly on the right side reduced.	normal. • Blowing of cheeks proper.

Table 9: Sunnybrook Facial Grading Score before, after treatment and after the first follow-up

Sunnybrook Facial Grading Score					
	Before Treatment After Treatment After First Follow Up				
Score	78	84	100		

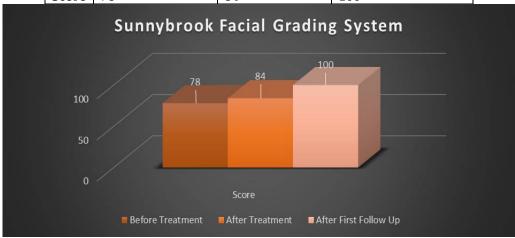


Figure 1: Sunnybrook facial grading graph

Pictographic Observations:



Figure 2: Before Treatment









Figure 3: After Treatment

DISCUSSION

Ardita encompasses a range of conditions, with facial paralysis being one of its key features. Acharya Sushruta's explanation of Ardita is particularly relevant when compared to Bell's palsy, while Acharya Charaka and Vagbhata also highlight the involvement of the entire body in this condition. By integrating insights from both *Ayurvedic* and modern medical frameworks, *Ardita* can be equated with Bell's palsy, which is characterized as a lower motor neuron lesion. Therefore, the treatment (*Chikitsa*) should be designed according to the Adhishtana (*affected area*) of the illness (*Vyadhi*).

Abhyanga: According to Acharya Susrutha *Abhyanga* helps *Mardhavakara* (softness of body), Pacifies *Kapha* and *Vata*, *Dhatu Pusti* (promotes Dhatu), Provides *Mruja* (cleanliness), *Varna* (complexion) and *Balaprada* (strength) [7].

The oil used for *Abhyanga* in this case study was *ksheerbala tail* which is known to be *Rasayanam* (rejuvenator), useful in various Neurological disorders, and is Beneficial for sense organs [8]. *Ksheerabala Taila* possesses Snigdha, Manda, Sukshma, Vyavayi, and Ushna properties. These qualities work together to nourish and strengthen the tissues, calm the mind, enhance mental function, and clear bodily channels, making this formulation particularly effective in managing *Ardita*.

Swedana: Swedana serves as a preparatory step before any Panchakarma procedure, and in this instance, it is conducted prior to *Nasya Karma*. The process facilitates enhanced local microcirculation by promoting vasodilation, which increases blood flow to the peripheral arterioles. This improvement in circulation accelerates the absorption of therapeutic agents, contributing to quicker recovery and improved outcomes. This mechanism facilitates the subsequent elimination of *Doshas* (toxins) following the administration of the *Nasya dravya*.

Nasya Karma: A therapeutic procedure within Panchakarma, involves administering medicated oils through the nasal passage. The head, or Shira, is regarded as the most vital and prominent part of the body (Uttamanga) Aacharya Charaka describes the nose as the gateway to the head (Shiras). Medications administered through the nasal route in Nasya therapy are believed to reach the brain directly, targeting and expelling the morbid Doshas that contribute to disease, thereby facilitating therapeutic benefits [9].

The nasal route provides a practical, efficient, and highly vascularized pathway for drug administration, enabling rapid absorption into the systemic circulation while circumventing hepatic first-pass metabolism. This method results in quicker therapeutic effects, reduced dosages, and minimized side effects. Additionally, intranasal drug delivery can bypass the blood-brain barrier (BBB), allowing direct transport of active compounds to the central nervous system (CNS), making it a valuable approach for CNS-targeted therapies and vaccines [10].

In this case of Ardita, the nasya treatment employed was *Ksheerabala Taila* 101, A potentized formulation of *Ksheerabala* oil prepared through a 101-fold potentiation process [11]. *Ksheerabala Taila* 101 is a renowned Ayurvedic oil effective in managing neurological conditions like facial palsy and hemiplegia. Known for its rejuvenating properties, it enhances cognitive clarity, sensory perception, longevity, and physical strength, making it a key remedy for neurological wellness and vitality in *Ayurveda*.

Shiropichu: The procedure involves folding a pad, saturating it with medicated oil, and placing it on the anterior fontanelle. This application, known as *Shiropichu*, is believed to enhance the power of the *Ajanam Chakra*, aiding in the treatment of various disorders. The placement of the *Pichu* on the scalp promotes immediate absorption, while prolonged duration increases transdermal uptake. The therapeutic action is

facilitated by the properties of *Tarpak Kapha, Sadhak Pitta*, and *Praan Vayu*, as well as the *Tikshna*, *Vyavayi*, and *Sukshma* characteristics of the oil [12].

Thalam: is an *Ayurvedic* therapy involving the application of medicated herbal paste to the head, targeting scalp pores to stimulate peripheral nerves and support neurological health. In this case, *Kachooradi Churna*, a classical blend from *Sahasrayogam*, was used post-*Shiropichu*. Comprising herbs like *Shati, Yashti, Dhatri*, and *Bala*, it is effective in balancing *Kapha* and *Vata doshas*, promoting vitality and well-being.

Shaman Aushadi: A therapeutic formulation combining Ekangveer Rasa [13], Mahavatavidhwans Ras [14], Sootshekhar Ras [15], and Mahayograj Guggulu [16] was administered to the patient twice daily with warm water. This combination, composed of Vatahar herbs, exhibits potent Vata-Kapha Shamaka and Tridosha Shamaka effects, along with properties beneficial for promoting nerve stimulation (Nadi Uttejaka), and strengthening (Balya) properties. The synergistic action of this formula effectively pacifies aggravated Vata Dosha and Kapha Dosha through its Tikta, Katu, and Kashaya tastes, as well as its Laghu, Ruksha attributes, Ushna Veerya, and Katu Vipaka. These qualities aid in restoring motor functions (Gati) and sensory perception (Gandhana). Clinically, this formulation is expected to alleviate symptoms associated with Vata aggravation in the musculoskeletal and nervous systems, such as impaired motor activity (Cheshtanasha), joint laxity (Sandhishaitilya), facial asymmetry (Mukhavakrata), speech difficulties (Vakagraha), and sensory loss (Sagnynahani).

A combination of *Ashwagandha Churna* [17] and *Shatavari Churna* [18] was administered to the patient with milk twice daily. This formulation exhibits *Rasayana* properties, promoting rejuvenation and vitality. Additionally, it possesses strengthening (*Balya*) and *Vatahara* effects, making it beneficial for balancing *Vata Dosha*. The synergistic action of these herbs functions as a nervine tonic, which is particularly effective in alleviating symptoms associated with Ardita (facial paralysis).

CONCLUSION

In conclusion, the management of *Vata*-related disorders, exemplified by *Ardita* (facial paralysis), through *Shodhana* therapies demonstrates a comprehensive approach to restoring balance in the nervous system. *Abhyanga* and *Swedana*, particularly when using *Ksheerbala taila*, offer potent *Vata*-pacifying and rejuvenating effects, promoting vitality and reducing the exacerbation of *Vata dosha*. The application of *Nasya* therapy, utilizing the nasal route for direct delivery of medicinal substances to the brain, further enhances therapeutic efficacy by stimulating the central nervous system and supporting the restoration of neuromuscular function. Additionally, the use of *Shiro Pichu* aids in soothing the nervous system and alleviating *Vata* disturbances in the cranial region. Complementary *Vata*-pacifying *Shamana* medications bolster the overall treatment by providing strength and stabilizing the body's inherent Vata imbalances. Collectively, these integrative Ayurvedic interventions offer a scientifically grounded, holistic approach to the management and rejuvenation of patients suffering from *Vata-vyadhi*, specifically *Ardita*, by addressing the root cause and promoting long-term recovery.

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