



## EFFICACY OF KUKKUTANDA PINDA SWEDA AND NASYA KARMA IN THE MANAGEMENT OF ARDITA (BELL'S PALSY) – SINGLE CASE STUDY

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### ABSTRACT

*Ardita* is considered one of the eighty *Vata Nanatmaja Vyadhis* in Ayurveda. Aggravated *Vata*, affects the face & leads to impaired function of facial muscles. It can be correlated with the disease 'Bell's palsy'. Facial palsy is the most common neurological disorder, in which the seventh cranial nerve is affected. Because speech, mastication, and expression of moods and emotions are based on the ability to move facial musculature—be it voluntary or involuntary successful treatment of facial nerve paralysis is a vital concern. The facial nerve conveys both sensory & motor along with parasympathetic fibres. A damaged facial nerve (VII) results in loss of function of facial muscle leading to cosmetic impairment. Major complications of the condition are chronic loss of taste, chronic facial spasms, facial pain, and corneal infections. In this manuscript, we are presenting a case study of a 26-year-old female patient with left LMN left hemifacial palsy with symptoms of weakness in the left side of the face, drooping of the angle of the mouth towards the right side, difficulty in speech, difficulty in wrinkling of the forehead in left side, lacrimation from left eyes, numbness in the left side of the face. Ayurvedic & Herbal formulations like *Bruhat Vata Chintamani ras*, *Giloy Satva*, *Ashwagandha Churna*, *Mahayogaraja Guggulu*, etc along with the *Panchkarma* procedure have been given and treated for two weeks. The patient got complete relief in all symptoms with appreciable changes. Bell's palsy can be managed by giving comprehensive management of *Panchkarma* and palliative treatment which reflects that it is a good remedy for Bell's palsy.

**Keywords:** *Ardita*, *Bell's Palsy*, *Panchakarma*, *Nasya*, *facial nerve*, *vyadhi*.

## INTRODUCTION

Ardita is considered one of the eighty Vata Nanatma-ja Vyadhis in our Ayurvedic classics.[1] It is also considered as also as a “Shiro Roga since Shiras is the Adhista in this entity. Hence also considered as Shiro roga. Charaka Acharya opines that this disease is localized in half of the face with or without the involvement of the body [2]. While Sushruta has considered as the face is only affected in Ardita. He further added that auxiliary points that following Rakta Kshaya, (depletion of blood) in a specific group of patients get afflicted by Ardita.

Ardita is also explained as Ekayaam by Ashtang Hrudaya. Acharya Arunadatta has clarified that Ardita is a disease of the body mostly affecting half of the face [3], due to excessive aggravation of Vata and causes distortion of the face. It can be correlated with the disease 'Bell's palsy in modern aspects. It is a condition that developed, facial palsy the paralysis of the facial nerve also affects the movement of facial muscles and shows similar symptoms due to inflammation of the facial nerve within its canal above the stylomastoid foramen [4]. Bell's palsy has an incidence of 23 cases per 100,000 population/year, or about 1 in 60 to 70 people in a lifetime [5].

Facial nerve dysfunction can have a significant impact on a patient's overall happiness. The human face

serves as a meeting point for correspondence and appearance.[6] Because the face nerve carries motor, sensory, and parasympathetic fibres, facial palsy affects both function and appearance.[7] On clinical examination, facial nerve paralysis is found to cause facial muscular weakness. Idiopathic, traumatic, infective, neoplastic, innate, and immune system factors should all be evaluated when one-sided facial paralysis occurs.[8,9] The inability to completely seal the mouth and eye on the influenced side of the face causes problems with eating and communicating, as well as corneal dryness and disintegration.[10] Agony around the ear, sometimes spreading to the back of the head or neck, altered taste, synkinesis, facial spasm, facial contractures, dysfunctional lacrimation, and voice intolerance are some of the later signs.[11] Bell's palsy can cause severe mental discomfort due to the ensuing impairment of oral fitness, verbal correspondence, and social connection.[12,13]

Lacrimation of the ipsilateral eye during eating (crocodile tears) and closure of the ipsilateral eyelid when the jaw expands are the two most basic atypical regeneration patterns (jaw winking). This indication can be compared to Ardita Vata in Ayurveda based on symptomatology.[14,15] (Table 1)

Table 1- Shows comparison of Bell's Palsy with Ardita Vata-

Sr.no.	Bell's Palsy	Ardita Vata
1	Deviation of mouth toward the right side.	Vakreebhavati vaktraardham Vakreekaroti nasa bhru lalata akshi hanustatha
2	Watering of eyes	Netramaavilam
3	Unable to blink or close eye properly on the affected side.	Stabdham netram, Ekasya aksho nemeelanam
4	Sudden onset of deviation of mouth and weakness	Samutkshipteli atitwaritah
5	Slurred speech	Vaak sanga

‘Ardhe hatham ithi ardhitham’.

The causes of Ardita have also been explained in detail in Samhitas. Excessive laughing, speaking loudly, chewing hard food, yawning, sneezing, carrying heavy loads on the head, sudden movement of head and neck, exposure to cold and wind, etc. are some of the causes. for developing Ardita.

### AYURVEDIC VIEW

On the basis of etiology, clinical features of Facial palsy can be correlated with Ardita. This is one among the 80 Nanatmaja Vyadhis of Vata. The word Ardita means partially destroyed as revealed by the quote.

These *Nidanas* (etiology) lead to vitiation of *Vata* and manifestation of symptoms of *Ardita*. The symptoms include distortion of the affected side of the face, deviation of the angle of mouth to the normal side, tremors of the head, shaking of the tooth, incomplete closure of the eye on the affected side, distortion of the nose, difficulty in speech and hoarseness of voice, loss of hearing and impairment in smell sensation, pain in the ear, difficulty in mastication and swallowing of food, etc.[16]

In Ayurveda, the treatment described for *Ardita* is safe and effective. The treatment provides strength to facial muscles, strengthens the nerves, and improves

blood circulation and there will not be any recurrence of the disease. As per Acharya Vagbhata and Charak, *Ardita* requires a nourishing type of therapy. The treatment principle is-

*'Ardite navanam moordhini tailam tarpanamevacha!  
Nadi sweda upanahasch apyanoopa pishitair hita !!'*  
[17]

i.e., *Nasya Karma*, *Moordha Taila* (application of oil to the head), *Tarpana Kriya*, *Nadi Sweda*, and *Upanaha Sweda* are included in the treatment principle of *Ardita*. Acharya Sushruta has also supported the above view.

## CASE STUDY

### Table 2

#### CHIEF COMPLAINTS OF THE PATIENT-

Sr. No.	Chief Complaint	Duration
1	Slight Deviation of mouth on the right side	From 20 days
2	Unable to chew from left side properly	From 20 days
3	Inability to blink a left eye or smile completely	From 20 days
4	Slight drooling from the left side of the mouth	From 20 days
5	Slurred speech	From 20 days
	Associated complaints	
1	General debility	From 2 months
2	Constipation	From 2 months

#### History of Present Illness—

A 26-year-old female patient was apparently normal before 20 days but post-dinner after a sleep of two hours when she woke up; noticed a slight deviation of mouth to the right side. In the morning on the next

day gradually she suffered from symptoms such as a slightly deviated face on the right side, unable to chew from the left side properly, facial droop, and difficulty making facial expressions, such as closing her eyes, smiling, or pouting.

#### History of Past Illness—

##### Table 3-

Past medical history	No H/o HTN, DM, fall or trauma, no surgical history
Personal history	Diet- Mixed No addiction Sleep- late at night & irregular Occupation- housewife
Drug history	NA
Family History	Not significant

On Examination- Systemic examinations of the Respiratory system observed no significant abnormality.

**Table 3- General Examination**

GC	Fair, conscious, alert, and oriented to time, place & person.
Temperature	Afebrile
Pulse	78/min
BP	130/84 mmhg
P/A	Non tender, no organomegaly
Lymphadenopathy	Absent
Oedema	Absent
Icterus	Absent
Cyanosis	Not seen
Pallor	Absent
Nourishment	Moderate
Built	Moderate

— *Central Nervous System Examination* -

1. Higher Motor Functions intact
2. Consciousness- Conscious
3. Orientation to- Time, place, and person- Intact
4. Memory - Recent -not affected, Remote- not affected
5. Intelligence- Intact
6. Hallucination & Delusion - Absent
7. Speech - Slow and words are mumbled

— *Cranial Nerve Examinations* -

Neurological exam noting functions of all other cranial nerves, aside from the facial nerve, is intact. The cerebellar examination is also normal.

- a. Forehead frowning - not possible on the left side
- b. Eyebrow raising - not possible on the left side.
- c. Eye closure - the left eyeball moves upwards and inwards when the patient attempts to close it along with incomplete closure of the eyelid. (*Bells phenomenon*)

- d. Teeth showing - not possible in left side denture.
  - e. Blowing of cheek - not Possible on left side
  - f. Nasolabial fold - Nasolabial fold loss on the left side.
  - g. Taste perception - not affected.
  - h. Dribbling of saliva – slight Dribbling of saliva present from the left side of mouth and spilling of food contents during eating from the left side
  - i. Bells phenomenon – present on left side
  - j. Deviation of the mouth towards the right side
- Deep Reflexes such as Biceps, Triceps, Supinator, Knee jerk, Ankle jerk, and Plantar reflex are normal. Muscle power and tone in all limbs were also normal.
- Co-ordination Upper limb • Dysdiadokinesia- absent • Finger to nose test- possible • Pronator Drift- Possible • Fine movements- No abnormality detected Lower limb • Tandem walking- Possible • Heel shin test- Possible • Heel Walk-Possible.

**DIAGNOSIS- BELL'S PALSY.**

**Table 4- Plan of External Treatment –**

Sr.no.	Type of Panchakarma treatment	Drugs
	For the First 7 days	
1	Whole body massage	Prasarini taila
2	Facial massage	Prasarini taila
3	Nadi sweda (over face)	Dashmool kwatha
4	Kukkutanda pinda Sweda (over face)	Kukkutanda ( egg white ) + saindhava lavana (Rock Salt) + nimbuka (lemon)

	<u>After 7 days nasya is given along with the above therapy for the next 7 days.</u>	
5	<u>Marsha Nasya</u>	Anu taila- starting from 4 drops- gradually increasing upto 10 drops then decreasing in dose in each nostril.
6	Jhiva Pratisarana	Trikatu (Black Pepper, Long Pepper, rhizome of Ginger powder) +Vacha (sweet flag) + Yashtimadhu (Licorice) powder with honey

### Plan Of Internal Treatment-

Table 5-

Sr.no.	Medicine	Dose	Anupana	Duration
1	Bruhat Vatchintamani rasa	125 mg in rasayan kala (early morning empty stomach)	Go-ghrut or cow milk	7 days
2	Mahayograj Guggulu	250mg × BD after the meal	Lukewarm water	7 days
3	Giloya satwa	250mg × BD after the meal	Lukewarm water	7 days
4	Eranda taila	15 ml × HS	Lukewarm water	7 days
5	Ashwagandha + Brahmi powder	2 gm + 2 gm at night	Lukewarm Milk	7 days

#### Assessment criteria-

The House–Brackmann scale of facial nerve weakening revealed that grade IV facial paralysis exists (weak with incomplete eye closure) and after the commencement of 14 days of treatment; it was Grade 2. There was no side effect observed during and after the treatment.

#### Clinical Parameters-

Symptoms such as eye closure (95 percent), speech (100 percent), and difficulty eating and drinking improved completely after 2 weeks of treatment. The drugs were given to the *shaman of Doshas* for the next week. The patient was completely free of all symptoms, and the treatment was stopped.

#### OBSERVATIONS AND RESULTS-

As a result of the adopted treatment protocol, the following symptomatic changes in the patient were observed (see figure1&2) which indicate the complete recovery from the Palsy:

1. Complete closure of the left eye.
2. Reduction of lacrimation from the eye.
3. Improvement in the strength of Facial muscles.
4. Normal symmetry of the face.
5. No dribbling of saliva



Fig-1 – Before treatment

Fig- 2 – After treatment

## PROGNOSIS-

Facial nerve palsy can improve up to 1 year later. Patients with incomplete palsy have a better prognosis than patients with complete palsy [18] and the younger the patient the better the prognosis [19,20]. In patients with incomplete palsy, up to 94% make a full recovery. For elderly patients and those with severe weakness, the outcome is less favorable.[21]

## DISCUSSION

In Ayurveda, Bell's paralysis is referred to as *Ardita vata*. Despite the fact that this disease is gradually improving with time, adequate and prompt medication organization is required to avoid irreparable effects. As a result, steroid organization as early as feasible is considered the first line of treatment in traditional treatment. In this example, treating Bell's paralysis without steroid medication resulted in complete recovery within 14 days of treatment. When looking at the causative elements for *Vata vyadhi* (*Vata Dosh* – dominating diseases – *Ardita Vata* in this case), one of the causative variables in the vitiation of *Vata* that was proven in this case is severe exposure to cold air.[19,20]

*Charaka* attributed the root cause of *Ardita* (Bell's palsy) to highly vitiated *Vata* dosha whereas *Ayurveda* experts *Shodhal* classified *Ardita* on the doshic influence of *Kapha* and *Pitta* rather than *Vata*. *Nadi swedna* (Tubal sudation) and *Nasya* (Errhine therapy) are explained in classics like *Charaka* and *Sushruta* for the treatment of *Ardita*. *Sushruta* described medication for *Ardita* in his *Sutra sthana* giving special emphasis on *Nasya* (Errhine therapy). hence the improvement can be expected only by attaining the normalcy of *Vata*. This very principle of treatment was adopted in this case study.

*Abhyanga* stimulated the nerves and gave passive exercises to muscles thereby strengthening them. The gentle pressure used during massage relaxed the muscles and provided sensory motor integrity also. *Swedana* liquefied the deranged *Dosha* and facilitated its expulsion by the subsequent procedure. The pacification of vitiated *Vata* was further enhanced by *Marsha Nasya* by virtue of its nourishing capacity

As per *Vagbhata* and *Charaka*, *Ardita* requires a nourishing type of therapy [22]. *Nasya Karma* (Errhine therapy), *Moordha Taila* (application of oil to the head), *Tarpana* (Libation) with medicated oil to the eyes and ears, *Nadi Sweda* (Tubal sudation), *Upanaha Sweda* (application of poultice) are included in the treatment principle of *Ardita*.

Keeping all these efficacious treatment modalities in mind, a comprehensive treatment was planned for the present case.

*Sarvang abhyanga & Mukhabhyanga with Prasarini taila* (Whole body & facial massage with *Prasarini* oil) [23] –

*Prasarini Taila* pacifies *Vata-Kapha*, strengthening and anabolic nutritive properties. So, it provides a very good effect on aggravated *Vata*. The massage and sudation will help to loosen the adhesive doshas thereby facilitating the subsequent treatment. Facial massage improved motor function by stimulating and strengthening the facial nerves and muscles. Internal medicines were also selected for the pacification of *Vata*. *Nadi Swedana* liquefied the deranged *Doshas* and facilitate their expulsion by subsequent *Panchakarma* procedures.

*Kukuntanda sweda* – It comes under the variety of *Ushma sweda* (wet sudation)[24]. Mild sudation before the Errhine therapy, and after facial massage enhances local microcirculation by dilation of blood vessels and increasing blood flow to the peripheral arterioles which accelerates the drug absorption and fast improvement. It also stimulates the local nerves [25].

*Nasya* (Errhine) therapy with *Anu Taila*- The Errhine therapy is indicated in speaking difficulty. Oil has mainly *Vata* pacifying properties, which relieves *Vata* obstruction especially the flow of *Vyana* (one of the varieties of *Vata*). Blinking is the function of eyelids which was hampered due to the *Chala* property of aggravated *Vata* and is relieved by the *Sthira* property of oil. Errhine therapy due to its therapeutic effect as well as the pharmacological effect of *Anu Taila* helps to combat it by its purifying as well as nutritive properties. The relief in Bell's palsy may be due to the decreased inflammatory response by re-

lieving compression and ischemia of the nerve in the narrowest part of the fallopian canal, which is the collective effect of therapy. Dribbling of saliva is though due to the dropping of the corner of the mouth. It may be improved as the affected side of the mouth restores its normal position.

Errhine therapy relieves the obstruction of vitiated *Vata* in the *Murdha* (head) and it restores the natural functionality of affected nerves and improves blood circulation to concerned areas of the brain [26]. It also provides nourishment to the nervous system through neural, diffusion, and vascular pathway [27].

#### Probable Combined Mode of Action of Treatment

Sudation and Errhine therapy were found to be highly effective in the management of Bell's palsy. The treatment provides strength to facial muscles, strengthens the nerves, and improves blood circulation. It improved motor function by stimulating and strengthening the facial nerves and muscles.

## CONCLUSION

Here the patient is treated with Ayurvedic principles of *Ardita* & got marked improvement within two weeks without any side effects or recurrence. All the observation was done on the basis of clinical presentation & graded according to the House- Brookmans scale. Before the treatment, the patient was unable to smile, had difficulty in speech, closure of eyelid, frowning, and altered taste & smell. With the internal herbal preparation & *Panchakarma* therapy, she got improvement in all the symptoms. The potential of Ayurvedic treatment is yet to be explored enthusiastically and carefully. Facial paralysis can be successfully managed by Ayurvedic treatment with a lesser chance of recurrence and without any side effects. However as this is a single case study, similar studies needed to be done on a larger sample size to establish the statistical significance of the present line of treatment.

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