

EFFECT OF KSHEERADHOOMA AND NAVANA NASYA IN BELLS PALSY W.S.R TO
ARDITA – A CASE REPORTMisriya K. H.^{1*} and Ananta S. Desai²¹PG Scholar Department of Panchakarma Government Ayurveda Medical College Bengaluru.²HOD and Professor Department of Panchakarma Government Ayurveda Medical College Bengaluru.

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Article Received on 06/04/2023

Article Revised on 26/04/2023

Article Accepted on 16/05/2023

ABSTRACT

Background: *Ardita* is one among the eighty *Nanatmaja Vata Vyadhi* explained by *Acharya Charaka*. The word meaning of *Ardita* is the condition caused due to unusual function of *Vata dosha* which turns the mouth in opposite direction. In contemporary science it is understood as Bell's palsy. Bell's palsy is a condition that cause a temporary weakness or paralysis of the muscles in the face due to inflamed nerve. **Aims and Objectives:** To assess the efficacy of *Ksheeradhooma* and *Navana nasya karma* with *Anutaila* in Bell's Palsy. **Materials and Methods:** *Ksheeradhooma* and *Navana Nasya* followed by physiotherapy were Advised and assessed before treatment, after treatment and after follow up. **Discussion:** *Acharya Charaka* and *Sushruta* described *Nadisweda* and *Nasya Karma* as the prime treatment modalities for *Ardita*. *Ksheeradhooma* is a variety of *Nadisweda* in which *Balamoola* and *Godugdha* are used for vapour. *Sneha* is considered as best *Vatashamana*, hence *Navana Nasya* with *Anutaila* is adapted in this current study. As it is in lipid media have greater affinity for passive absorption through nasal mucosa and blood brain barrier. **Result:** The treatment adapted is effective in the management of *Ardita* and shown Significant changes in the signs and symptoms of *Ardita*. **Conclusion:** Bell's palsy can be treated with comprehensive *Panchakarma* procedures.

KEYWORDS: Bell's palsy, *Ardita*, *Ksheeradhooma*, *Nasya karma*.

INTRODUCTION

Ayurvedic text books refer Bell's palsy or Facial palsy with the name disease *Ardita*. According to *Acharya Charaka*, *Ardita* disease is localized in face with or without involvement of body.^[1] But according to *Sushruta* it is affected only in face.^[2] Hence *Ardita* can be correlated to Facial palsy or Bell's palsy. The *Vata Dosha* vitiated by respective *nidana* gets lodged in head, nose, chin, forehead, and eyes manifest disease *Ardita*. According to *Charaka vata* *Dosha* situated in head causes *Shoshana of Rakta Dhatu* leading to *Ardita*.^[3]

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 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 is due to inflammation and oedema of Facial nerve are responsible for the symptoms. Bell's palsy can occur to anyone but it seems to occur more often in people who have Diabetes or those who are recovering from viral infection. Paralysis results from decreased blood supply (ischemia) and or compression of the 7th cranial nerve. Exact cause of Bell's palsy not known. Viral (Herpes zoster virus) and immune disorders are frequently suggested as a cause for

this disorder. There may also be an inherited tendency toward developing Bell's palsy.^[4]

The annual incidence is 15 to 20 per 100,000 with 40,000 new cases each year and the lifetime risk are 1 in 60. There is an 8% to 12% recurrence rate. Even without treatment, 70% of patients will have complete resolution. There is no gender or racial preference, and palsy can occur at any age, but more cases are seen in mid and late-life with the median age of onset at 40 years. Risk factors include diabetes, pregnancy, pre-eclampsia obesity and hypertension.^[5]

Causes

- Cold sores and genital herpes.
- Chickenpox and shingles (Herpes zoster)
- Infectious mononucleosis (Epstein-Barr)
- Cytomegalovirus infections
- Respiratory illness.
- German measles (Rubella)
- Mumps (Mumps virus)
- Flu (Influenza B)
- Hand-foot-and mouth disease (Coxsackievirus)

Symptoms are

- Rapid onset of mild weakness to total paralysis on one side of face – occurring within hours to days.
- Facial droop and difficulty making facial expression, such as closing eye or smiling.
- Drooling
- Pain around the jaw or in or behind your ear on the affected side.
- Increased sensitivity to sound on the affected side.
- Headache
- A loss of taste
- Changes in the number of tears and saliva you produce.^[6]

In contemporary science treatment strategy generally includes usage of glucocorticoids along with antiviral agents and massage of the weakened muscles. *Ardita* can be successfully managed with Ayurveda treatment. Certain *Panchakarma* procedures are helped in correcting of vitiated *Vata* and thereby restores the natural function of nerves and improves blood circulation to concerned areas of brain.

The treatment principle includes *Navana Nasya* (nasal administration of medicated oil/ ghee), *Murdhnitaila* (Different modalities of retaining medicated oil in head), *Tarpana* (Retaining medicated ghee over the eyes), *Nadisweda* (Fomentation with the help of tubular structure and *Upanaha* (Poultice).^[7] Here is a case where recovery observed by administering the *Ksheeradhooma*

and *Navana Nasya Karma* with *Anutaila* with some oral medication.

Case report**Chief complaint**

The present case study is on management of *Ardita* (Bell's palsy) through *Panchakarma*. A 24-year-old female patient having symptoms of *Ardita* reported to *Panchakarma* outpatient department (OPD) of SJIIM hospital, Bengaluru with chief complaints of

- Inability to close left eye in the last 2 months
- Pain in left half of the face – one month
- Slight deviation of mouth to right side - 2 month
- Loss of taste – 2month
- Pain in auricular area - 2 months
- Excessive lacrimation from left eye for 2 months

History of present illness

A female Patient aged about 25 years old apparently normal before 1 month then suddenly started blisters around nasolabial region with burning sensation, post auricular pain. After 3 days of this symptoms, suddenly developed deviation of angle of mouth to right side, inability to close left eye completely, gradually started pain and numbness in the left half of the face, loss of taste sensation and dribbling of liquid food from the mouth. For all these complaints she consulted a physician and took medication and physiotherapy. After physiotherapy she got mild relief in symptoms. For better management she approached ayurvedic treatment and admitted in SJIIM hospital on 15/09/2021.

Personal history

Name- XYZ	Bowel habit – Regular
Age – 24 years	Appetite- Moderate
Marital status – Married	Menstrual history – Regular
Occupation – Engineer	Weight -52kg
Bala – Madhyamika	Height – 158cm
Sleep – Sound	Addiction- none

Clinical findings - Physical examination

Asta vidha pareeksha:

• <i>Nadi- Pittavataja</i> 77/min	• <i>Shabdha – Prakruta</i>
• <i>Mala- Prakruta</i> 1tm /day	• <i>Sparsha – Anushna sheetha</i>
• <i>Mutra – Prakruta</i> 4-5 tm/day	• <i>Drik – Prakruta</i>
• <i>Jihva- Alipta</i>	• <i>Akriti – Madhyama</i>

Dashavidha pareeksha

• <i>Prakriti- Pitta vataja</i>	• <i>Samhanana- Madhyama</i>
• <i>Aharaja hetu- None</i>	• <i>Pramana – Ht – 5.2ft</i>
• <i>Viharaja hetu- None</i>	• <i>Wt – 52 kg</i>
• <i>Dosha- Vata pitta</i>	• <i>Satmya- Madhyama</i>
• <i>Dushya- Rasa, Rakta, Mamsa Sira</i>	• <i>Ahara Shakthi</i>
	• <i>Abhyavarana shakthi-Uttama</i>
	• <i>Jarana shakthi- Uttama</i>
• <i>Desha- Anupa</i>	• <i>Vyayama shakthi- Madhyama</i>
• <i>Sattva- Madhyama</i>	• <i>Vaya – 24 years</i>
• <i>Sara- Twak sara</i>	• <i>Bala- Madhyama</i>

Systemic examination

CVS- S1 and S2 heard, no added sounds.

R S – NVBS heard.

P/A – Soft, non-tender

Central Nervous System Examination

- Higher motor Functions – Intact
- Consciousness – Conscious
- Orientation to Time, place, person - Intact
- Memory – Recent and remote not affected
- Intelligence – Intact
- Hallucination and delusion – Absent
- Speech – Normal

- Eyebrow rising – Not possible on left side
- Eye closure - Incomplete closure of left eyelid
- Teeth showing – Possible
- Blowing of cheek- Not possible on left side
- Nasolabial fold – Intact
- Taste perception – Affected
- Dribbling of saliva- Present
- Bells phenomenon – Present on left side

Treatment schedule

Ksheeradhooma for 7 days.

Nasya karma with *Anutaila* for 11 days

Facial nerve examination

- Forehead frowning- Not possible on left side

Table No. 1: Showing treatment protocol.

	<i>Ksheeradhooma</i>	<i>Nasya karma</i>
<i>Poorvakarma</i>	<ul style="list-style-type: none"> • Preparation of <i>Kashaya</i> adding milk and <i>Balamoola qwatha</i>. • <i>Sthanika abhyanga</i> (<i>Mukha</i>, neck region) with <i>Ksheerabala taila</i>. • Patient is made to sit in erect. • Eyes are covered with cotton gauze 	<i>Sthanika Abhyanga</i> with <i>Ksheerabala taila</i> <i>Bashpa sweda</i> .
<i>Pradhana karma</i>	Vapours coming from <i>Nadiyantra</i> directed over face, neck. Duration – 15 minutes	<i>Nasya</i> with <i>Anutaila</i> 8 <i>Bindu</i> to each nostril.
<i>Paschat karma</i>	Area should be wiped off <i>Kavala</i> with <i>Ushnajala</i> .	<i>Kavala</i> with <i>ushanjala</i> <i>Dhoomapana</i> with <i>Haridra varthi</i> .

Table No 2: Assessment criteria of clinical features.

S. N.	Clinical features	B T (Left side)	A.T (Left side)	A F
1	Symmetrical wrinkling of forehead	Absent	Present	Present
2	Clenching of teeth	Symmetrical	Symmetrical	Symmetrical
3	Closing of left eye	Completely not possible	Possible	Possible
4	Blowing of cheeks	Not possible completely	Possible with effort	Possible with effort
5	Taste perception	Absent	Absent	Absent
6	Corneal reflex	Present	Present	Present
7	Bells phenomenon	Present	Absent	Absent
8	Ear ache	Intermittent present	Absent	Absent
9	House Brackmann scale	Grade 5	Grade 2	Grade 2

Table No 3: House brackmann scale.

Grade	Definition
1	<ul style="list-style-type: none"> • Normal Symmetrical Functions of all area
2	<ul style="list-style-type: none"> • Slight weakness noticeable only on close inspection • Complete eye closure with minimal effort • Slight asymmetry of smile with maximal effort • Synkinesis barely noticeable, contracture or spasm absent
3	<ul style="list-style-type: none"> • Obvious weakness, but not disfiguring • May not able to lift eyebrow • Complete eye closure and strong but asymmetrical mouth movement with maximal effort
4	<ul style="list-style-type: none"> • Obvious disfiguring weakness • Inability to lift eyebrow

	<ul style="list-style-type: none"> Incomplete eye closure and asymmetry of mouth with maximal effort Severe synkinesis, spasm
5	<ul style="list-style-type: none"> Motion barely perceptible Incomplete eye closure, slight movement corner mouth Spasm absent
6	<ul style="list-style-type: none"> No movement, loss of tone, no synkinesis, contracture and spasm

Table No. 4: Grading.

Clinical Features	Grading	B T	A T	A F
Watering from eye	No Watering – 0 Persistent but do not disturb routine work -1 Persistent disturb routine work -2 Constant watering- 3	3	0	0
Widening of palpebral aperture	No widening – 0 Slightly wide – 1 Moderately wide -2 Severely wide -3	2	0	0
The absence of nasolabial fold	Naso labial fold present normally -0 Seen while trying to speak-2 Seen while trying smile -3 Nasolabial fold never seen – 4	2	0	0
Smiling sign	Absent smiling sign – 0 Smiling sign present without upward movement of left angle of mouth -1 Smiling sign present with upward movement of left angle of mouth- 2 Smiling sign present all the time -3	2	1	0
Dribbling of saliva from left corner of mouth	No dribbling -1 Intermittent dribbling – 2 Constant but mild dribbling -3 Constant and profuse dribbling -4	2	1	1

BEFORE TREATMENT**AFTER TREATMENT**

DISCUSSION

Ardita is a broad-spectrum disease in which Facial paralysis /Bell's palsy can be considered as one of the conditions. Description of *Ardita* according to *Acharya Sushruta* holds more apt while we correlate to *Charaka*. It is considered under *Asthimajjagata Vata* in *Bhela Samhita*.^[8] Analysing both *Ayurvedic* and modern view *Ardita* can be compared to Facial palsy of lower motor neuron type or infra nuclear type more accurately. Bell's palsy is a type of LMN Facial nerve paralysis, the various manifestations of Facial nerve lesions at different site has been mentioned as *Lakshanas* of *Ardita* clearly *Acharyas* years back.

As it is one of *Vataja Nanatmaja Vyadhi*, *Vatahara* line of treatment should be adopted such as *Snehanakarma*, *Swedanakarma*, *Brumhana* etc. *Vata* is responsible for all activities of body. Hence sensory and motor activities of the body can be understood by the proper functions of *Vata Dosha*. Hence In this present case study *Ksheeradhooma* and *Navana Nasya Karma* is adapted for correcting aggravated *Vata dosha*, For nourishment of weakened Facial muscles, to improve the blood circulation and to stimulate the sensory nerve endings of face. *Ksheeradhooma* is a traditional treatment practiced in Kerala in different *Vata Vyadhi* especially in *Ardita*.

Probable mode of action of *ksheeradhooma*

Ksheeradhooma mainly acts as *Snehana*, *Swedana* and *Brumhana* which is required for *Vata vyadhis*. It is a type of *Snigdha sweda*. *Abhyanga* followed by *Snigdha sweda* in the form of *ksheeradhooma* relieves *Stabdhatata* by *Ushna guna*, *Rukshata* by *Snigdha guna*, *Sthanika srotovikasana* by *Ushnaguna* and *Balya* properties produced by of mixture of *Balamoola kwatha* and *Ksheera*.^[9] *Bala* is one among the *Balya mahakashaya* and *Madhura skanda Dravya*.^[10] Rise in temperature induces muscle relaxation and increases the efficacy of muscle function; increased blood supply ensures the optimum conditions for muscle contraction. *Dhooma* of *Ksheera* and *Balamoola Kashaya* is one of the best *Brumhana chikitsa* which can be normalise *Bhodhaka kapha vikriti*. It can be inferred that the *Ushna guna* of *Swedana karma* leads to stimulation of sympathetic nervous system and there is vasodilation. *Abhyanga* is done as a *Purvakarma*, it increases blood supply in that area. Hypothetically amino acids like tryptophan increase in blood after massage. An increase in plasma tryptophan subsequently causes a parallel increase in the neurotransmitter serotonin, which is made from tryptophan, a motor end plates.^[11]

Probable mode of action of *anutaila nasya in ardita*

Nasya Karma is a process by which medicated oil is administered through the nostrils.^[12] The *Nasya dravya* via *Sringataka marma* enter brain which is main vital point corresponding to nerve centres responsible for speech, vision, smell, taste and hearing.^[13] Bell's palsy involves disturbances in almost all the sense organs. Thus, *Anutaila* is used for *Nasya karma* as it is having

Brumhana, *Dravays* along with *Aja ksheera* it does the *Indriya Balaprada* and *Tridosahara* action. Due to its *Sukshma – Vyavahi guna* and the special preparatory process, *Anutaila* possess good penetrating capacity through minute channels. *Madhura rasa*, *Sheeta veerya*, *Snigdha guna* and *Tridosahara* properties will help in nourishment of *Dhatu* which ultimately increases the immunity leading to reduce the further inflammation of Facial nerve.^[14] The drug by general blood circulation after absorption from mucus membrane pool into venous sinuses of brain via inferior ophthalmic vein, there the absorption is directly into the cerebrospinal fluid. Nerve endings of olfactory and trigeminal nerve which are arranged in the peripheral surface of mucous membrane are stimulated by *Nasya karma* and impulses are transmitted to the central nerve system.

CONCLUSION

In Bell's palsy Facial nerve dysfunction leads to facial muscle paralysis with impairment of both sensory and motor function. In *Ardita*, *Vata dosha* is predominantly involved so *brumhana* line of treatment should be adapted. *Ksheeradhooma* and *Navana Nasya karma* highly effective in the Bells palsy. Along with *Panchakarma* treatment, *Shamana aushadhis* also advised. Combined treatment pacifies the vitiated *Vata dosha* in the body and nourishment to the sense organs. From the present case study, it can be concluded that *Ayurvedic* management described in classical texts is helpful in giving significant relief in symptoms and signs of the disease Bell's palsy.

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