



A Clinical Approach to Ardita (Facial Palsy) through Ayurveda: A Single Case Study

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Abstract

Aggravated *Vata*, affects face & leads to impaired function of facial muscle. The term *Ardita* denotes facial paralysis or Bell's palsy. *Ardita* comes under eighty *Nanatmaja Vyadhi*. Facial palsy is most common neurological disorder, in which seventh cranial nerve is affected. The facial nerve conveys both sensory & motor along with parasympathetic fibres. Damaged facial nerve (VII) results in loss of function of facial muscle leads to cosmetic impairment. In this manuscript we are presenting a case study of a 44 years old female patient with left LMN left hemifacial palsy with symptoms of weakness in the left side of body, drooping of angle of mouth towards the left side, difficulty in speech, difficulty in wrinkling of forehead in left side, lacrimation from left eyes, numbness in left side of face, altered sensation of taste. Ayurvedic & Herbal formulations like *Buhat Vata Chintamani ras*, *Giloy Satva*, *Ashwgandha Churna*, *Trayodhashang Gugulu*, etc along with the Panchkarma procedure has been given and treated for one week. Patient got complete relief with appreciable changes in all symptoms.

Keywords: *Ardita*; Facial palsy; Bell's palsy

Introduction

Vata is responsible for controlling all the functions as well as formation of body structures. It is the only motivating force in the body, having propulsive action, through which it moves things & expels waste products from the body [1]. It controls central nervous functions, neuro-muscular activities & mind. It is responsible for all movements in the body hence under the term "*Nanatmaja Vyadhi*" of *Vata* 80 disease have been included which covers wide range of symptoms like paresis, paralysis of muscles, monoplegia, diplegia, hemiplegia, facial paralysis, neuralgia, stiffness of muscles, sciatica, spondylitis, convulsions, tremors, atrophy of muscles & cramps[2]. *Acharya Charak* has explained *Ardita* as the contracture of mouth along with the involvement of forehead, eyebrow, eye, nasal fold on the affected side of face [3]. *Acharya Charak* opines that *Ardita* is localized in half face

with or without involvement of body. *Acharya Sushruta* has considered the involvement of face only [4]. *Ardita* is also termed as *Ekayaam* [5].

On the basis of symptoms *Ardita* can be correlated with facial palsy. Facial palsy is a common neurological disorder in which seventh cranial nerve is affected. 7th cranial nerve also known as facial nerve, responsible for all voluntary movement of face, taste to the anterior 2/3 of tongue as well as control of lacrimal gland & salivary gland secretions. Facial palsy is defined as a temporary inability to control the facial muscles on affected side of face [6]. It can be characterized by weakness, muscle twitching, or total loss of ability to move on affected side along with drooping of eyelid, pain around the ear and change in taste [6]. Typical symptoms come on over 48 hours. Its cause is unknown. On the basis of lesions it can be divided into two types, UMN & LMN lesion. If patient

involves paralysis of lower face on the opposite side, it comes under UMN. If involves upper as well as lower face on same side, it comes under LMN. Here the patient has come with symptoms involving left unilateral side of face with both quadrants upper & lower, so representing the symptoms of LMN lesion of facial nerve.

The incidence is around 23 per 1, 00,000 people per year, or about 1 in 60-70 people in a lifetime [7]. It affects men and women more or less equally, with a peak incidence between the age of 10-40. It occurs with equal frequency on the right & left sides of the face [8].

Probable Pathogenesis According to Ayurveda [9]

When *Vata* is aggravated, it affects the one half part of body, it dries up blood, hand, legs, nee and produces contracture in that half. Consequently face, nose, eyebrows, forehead, eyes, jaw also get crooked. There is salivation and the eyes on the affected side remains partially closed. Thus when the food is taken, the morsel goes on the affected side, as the tongue also get affected. Patient may also face slurred speech. Some time may also feel pain in foot, hand, eyes, temple, ear & cheeks.

Case Study

A 44 years old female, housewife by occupation, belonging to the low middle class, came to Panchkarma OPD department of Rishikul campus, Haridwar, India with the following complaints from 1 week

- Weakness in the left side of face along with other body parts
- Numbness in the left half side of face
- Angle of mouth drooped down towards the left side of face
- Lacrimation from left eye
- Altered taste sensation & smell
- Slurred speech
- Inability to make facial expression like smile, frowning.

Associated Complaints

- Constipated bowels since 1 months

History of Present Illness

According to the patient, she was asymptomatic before one week; suddenly she felt weakness in left side of face along with generalized weakness. She also noticed that her angle of mouth droop down towards left side & numbness in left half side of face. Few hours later she also felt altered sensation of taste and smell with slurred speech. For this she

came to *Panchkarma* OPD of Rishikul campus, Haridwar for management.

Past Medical History

- No significant history of same illness
- Patient is K/C/O hypertension for 1 year & DM for 3 month No H/o of fall, trauma or surgery.
- Patient does not have significant family history.

Personal History

- Appetite- reduced Thirst – reduced
- Dietary habit – vegetarian Micturition – normal
- Bowel – constipated, once in three days, consistency is hard Sleep – disturbed
- Addiction – not any

General Examination

- BP- 110/80 mm of hg
- Pulse- 78/min
- Temperature – afebrile R/R – 18/min
- Edema – not present
- Pallor – not present
- Icterus – not present
- Tongue – white coated
- Skin – dry

Systemic Examination

Patient was conscious & well oriented to time, place & person. Higher function like intelligence, memory, behavior, emotions are normal. Speech was slurred. Superficial & deep reflexes were normal. All the cranial nerves are intact except VII nerve i.e. facial nerve.

Forehead frowning	Affected on left side
Eyebrow raising	Affected on left side
Eye closure	Incomplete closure of left eyelid
Teeth showing	Not possible on left side
Blowing of cheek	Not possible on left side
Nasolabial fold	Loss on left side
Taste perception	Affected
Dribbling of saliva	Absent
Bells phenomenon	Present on left side
Deviation of mouth	Towards right side

Table 1: Facial nerve examination.

All the deep reflexes such as biceps, triceps, brachio-radialis, knee jerk, ankle jerk, planter reflex are normal.

Muscle tone & power are normal in all the limbs. Systemic examination of cardiovascular & respiratory system was observed normal. During the abdominal examination there was tenderness in hypo-chondrium region, rest thing was found normal.

Investigations

- Hematological reports, lipid profile, LFT, KFT were normal but sugar level raised (RBS- 220 mg/dl)
- MRI head shows normal study.

Diagnosis

Considering the symptoms & examinations, the condition was diagnosed as case of *Ardita* / facial palsy. Written informed consent from patient was taken prior to treatment. Study was carried out by following the good clinical practice.

Plan of Treatment

Considering the diagnosis, patient was treated on the line of treatment for *Ardita*. Internal medicine – all for 60 days

- *Bruhat vata chintamani ras*- 100mg – Twice daily with milk after meal
- *Giloy satva*-200mg – twice daily with milk after meal
- *Dhatri loh* – 200 mg – twice daily with milk after meal
- *Ashwgandha churna* – 2 gm – twice daily with milk after meal
- *Trayodashang gugulu*- 2 tablet twice daily with water after meal

- *Tab mentate*- 2 tablet twice daily with water after meal
- *Dashmoolharitaki avleha*- 20 gm with hot milk during hours of sleep
- Inj. neurobion forte – 2ml (IM) at alternate day for one week

Panchkarma Therapy Details

Planned for marsh *Nasya* with *Mashbaladi Pachana kashaya Nasya* along with pan.

Nasya

Purva Karma: *Sthanika Abhyanga* with *Go Ghrita*, *Nadi Swedana* with *Dashmoola Kwath*

Pradhan Karma: *Mashbaladi Pachana Kashaya Nasya* in two sittings (each sitting of 7 days with the gap of three days)

Paschat Karma: *Kavala Dharan* with lukewarm water followed by *Dhoompana*.

Note: *Mashbaladi Pachana Kashaya Pan* about 100ml/day for 14 days.

Results

After 7 days of therapy with internal medication, she got significant relief in complaints like lacrimation, numbness on left side of face, correction of facial symmetry, no difficulty in speaking.

Clinical assessments were made from the subjective symptoms & House-Brackmann's grading of facial nerve VII. The result was seen after 7 days of treatment. There was no side effect observed during & after the treatment.

Parameter	Before Treatment	After Treatment
Deviation of mouth towards right side	Grade IV	Grade II
Dribbling of saliva	Dribbling absent	Dribbling absent
Nasolabial fold	Loss from left side of mouth	Normal
Slurred speech	Mild difficulty in pronouncing	Normal speech
Lacrimation	Continuous lacrimation from left eye	Lacrimation absent
Chewing	Difficulty in chewing from left side	Easily chew from left side
Taste sensation	Altered	Normal

Table 2: Subjective parameters.

	Before Treatment	After Treatment of 7 Days
Left side of face	Grade IV (weakness with asymmetry of mouth, forehead frowning-none, incomplete closure of eyes with efforts)	Grade II (slight weakness noticeable on close observation, normal symmetry at rest, forehead- moderate to good function, eye- complete closure with minimum effort, mouth- Slight asymmetry.
Right side of face	Grade I (normal facial function in all area)	Grade I (normal facial function in all area)

Table 3: House-Brackmann's grading.

Discussion

Acharya Charak has mentioned *Nasya* for *Ardita* in *Vata Vyadhi Chikitsa* [10]. In *Ayurveda Nasya* is considered best to control the disease above neck [11]. The process by which the drug is administered through nostrils is called *Nasya* [12]. According to *Ayurveda* the drug administered through nostrils reaches *Shrungataka Marma* & distributed in *Murdha* (brain), *Siramukha* (opening of the blood vessels of *Netra* (eye), *Karna* (ear), *Kantha* (throat) etc. finally scratches the morbid *Dosha* from supra clavicular region completely just like removing *Munja* grass from its stem [13]. According to modern science there is no direct route for pharmacodynamic consideration between nose & cranial organ because blood brain barrier is a strict security system of human brain. But the direct transportation can be possible through two pathways – Vascular & lymphatic. Vascular path transportation is possible through the pooling of nasal venous blood to the facial vein, which naturally occurs. Just at the opposite entrance, the inferior ophthalmic vein also pool in the facial vein. As both facial & ophthalmic vein have no venal valves in between, so blood may drain on either side. That is to say the blood from facial vein can enter cavernous venous sinus of brain in reverse direction. Thus, such a pooling of blood from nasal vein to venous sinuses of brain, is more likely in the head lowered position due to gravity. On these lines, the drug absorption into meninges & related parts of intracranial organs. Drug transportation by lymphatic path, can reach direct into the C.S.F. it is known that arachnoid matter sleeve is extended to the submucosal area of the nose along with olfactory nerve.

Here in this case the patient was given *Sthanik Abhayanga* & *Swedana* prior to the *Nasya* therapy. *Sthanika Abhayanga* was done with *Go-Ghrita* followed by *Sthanik Dashmoola Kwath Naadi Sweda*. It dilates the micro-blood vessels of face & enhances the blood circulation to that area. The increased blood flow to the peripheral arterioles accelerates the fast drug absorption & results in fast improvement. Improved blood supply to particular area of face result in nourishment of facial muscle & increases strength of facial muscle to work properly.

Mashbaladi Pachan Kashaya Nasya was given to the patient. It reaches to *Shringataka Marma* from where it spread into various *Srotas* (vessels & nerve) and controls the vitiated *Vata Dosha*. Not only have this drugs of *Mashbaladi Pachan Kashaya* also had additional property to pacify the vitiated *Vata Dosha*. They have anti-inflammatory and analgesic effect which gives relief in the symptoms. *Kavala* with luke warm water followed by *Dhoompana* after *Nasya Karma* removes the remaining *Doshas* which enhance the efficacy of treatment. Thus, helps to improve proper muscle functioning by pacifying the vitiated *Vata Dosha* &

strengthening the muscles.

Conclusion

Here the patient is treated with *Ayurvedic* principles of *Ardita* & got marked improvement within one week without any side effect or recurrence. All the observation was done on the basis of clinical presentation & graded according to house- brookmans scale. Before the treatment the patient was unable to smile, had difficulty in speech, closure of eyelid, frowning, altered taste & smell. With the internal herbal preparation & *Panchkarma* therapy she got improvement in all the symptoms. After the completion two sitting of *Nasya* therapy & 60 days of internal herbal medication she got relief from all the symptoms successfully. From this study we can conclude that *Ardita* can be managed successfully by *Ayurvedic* principles. However, this is a single case study; similar studies are needed to be done on a large scale to establish statistical significance of the present line of treatment.

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