AYURVEDIC MANAGEMENT OF FACIAL PALSY: A CASE STUDY

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ABSTRACT

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 sufferers of facial paralysis are increasing day by day. Major complications of the condition are chronic loss of taste, chronic facial spasm, facial pain and corneal infections. The oral medications prescribed for patients of facial palsy are steroids, which in turn causes severe side effects. Although most of the patients get recovery up to maximum extent, unfortunately, even with all current options for therapy, some cases of facial paralysis may never completely go away.

For these people, Alternative therapy like Ayurveda must be tried. Keeping this fact into consideration a case study which comprised of Ksheerdhooma Nasya, Kawala, Sthanika Pichu, Matravasti and Shirodhara was planned and it was proved to be a great success.

KEYWORDS: Ksheerdhooma Nasya, Sthanika Pichu, Matravasti, Shirodhara, Ardita.

INTRODUCTION

Facial paralysis is not an uncommon problem, and the annual incidence has been estimated to be approximately 70 cases per 100,000 population.1,2] Furthermore, in a study published by Bleicher et al3, it was estimated that approximately 127,000 cases of permanent facial paralysis occur annually. Peripheral facial paralysis remains a diagnostic challenge. Every effort must be made to determine the cause so that appropriate treatment can be initiated (observation, pharmacology, and/or surgery).

Causes of facial paralysis.4]

According to the National Institute of Neurological Disorders and Stroke, Bell’s palsy is the most common cause of facial paralysis. Every year, around 40,000 Americans experience
sudden facial paralysis due to Bell’s palsy. This condition causes inflammation of the facial nerve, which commonly causes the muscles on one side of the face to droop.

A more serious cause of facial paralysis is stroke. Facial paralysis occurs during a stroke when nerves that control the muscles in the face are damaged in the brain. Depending on the type of stroke, damage to the brain cells is caused by either lack of oxygen or excess pressure on the brain cells caused by bleeding. Brain cells can be killed within minutes in each case. Other causes of facial paralysis or weakness include:

- skull fracture or injury to the face
- head or neck tumor
- middle ear infection or other ear damage
- Lyme disease, a bacterial disease transmitted to humans by a tick bite
- Ramsay-Hunt Syndrome, a viral reactivation that affects the facial nerve
- autoimmune diseases such as multiple sclerosis, which affects the brain and spinal cord, and Guillain-Barré syndrome, which affects the nervous system

**Assessment of severity**

Most grading systems rely on the evaluation of resting symmetry, degree of voluntary excursion of the facial muscles, and the degree of synkinesis (involuntary movement accompanying a voluntary movement) triggered by specific voluntary movements [5]. Facial nerve palsy can be categorized as complete if there is inability to voluntarily contract the facial muscles, hyperacusis, or loss of taste [6] or incomplete (partial). The progression of weakness may be additionally assessed by reviewing old photos and comparing them with the actual status. The degree of nerve damage can also be assessed by nerve conduction studies of the facial nerve. Reduction of the compound muscle action potential suggests axonal degeneration whereas increase in latency suggests demyelination of the nerve[7].

The most common system used for describing the degree of paralysis is the House-Brackmann scale, where 1 is normal power and 6 is total paralysis[8].

**Imaging and Electrophysiologic Studies**

**Imaging-**

Computed tomography (CT) scanning and magnetic resonance imaging (MRI) are useful in the diagnosis of injury to intratemporal and/or intracranial affections of the facial nerve, as they may reveal temporal fracture patterns (vertical, transversal, mixed) and edema.
formation. Under certain circumstances, the facial nerve can be viewed, and swelling or disruption may be seen."^{9}

**Electrophysiologic studies**

These can be useful to determine the extent of nerve disruption, possible outcome, and treatment options."^{10} Most frequently, the minimal and maximal stimulation test (MST) and electroneuronography (ENog) are used. These tests are performed with percutaneous stimulation of the facial nerve.

ENog studies are required to determine timing and necessity of surgical intervention (decompression or microneurorrhaphy). ENog records a compound action potential (CAP), as well as latency after nerve stimulation. Degeneration of 90% or more has been shown to predict poor prognosis without surgical intervention."^{11,12}

**Management**

Except in the mildest cases, ideally this should be a multidisciplinary approach, encompassing ophthalmologists, ENT surgeons, plastic surgeons, physiotherapists and psychologists."^{13} Reassurance has a very important role to play, since the majority of cases resolve spontaneously. Ophthalmologists play an important role in preventing irreversible blindness from corneal exposure. This may be successfully achieved by using lubricating drops hourly and eye ointment at night ± an eye patch.

Botulinum toxin or surgery (upper lid weighting or tarsorrhaphy) may also be required temporarily. After the cornea has been protected but recovery is thought to be unlikely, longer-term management of eyelid and facial re-animation may be arranged.

**Prognosis**

Facial nerve palsy can improve up to 1 year later. Patients with incomplete palsy have a better prognosis than patients with complete palsy"^{14} and the younger the patient the better the prognosis."^{15,16} 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."^{17}
AYURVEDIC VIEW

On the basis of etiology, clinical features 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 ‘Ardhe hatham iti ardhitham’.

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

These Nidanas (aeitiology) leads to vitiation of Vata and manifestation of symptoms of Ardita. The symptoms include distortion of the affected side of the face, deviation of angle of mouth to the normal side, tremors of the head, shaking of tooth, incomplete closure of the eye in 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.[18]

In Ayurveda, treatment described for Ardita is safe and effective. The treatment provides strength to facial muscles, strengthens the nerves, improve the blood circulation and there will not be any recurrence of the disease. As per Acharya Vagbhata and Charaka, Ardita requires a nourishing type of therapy. Treatment principle is

‘Ardhithe navanan moordhini thailam tarpanamevacha !
Nadi sweda upanahasch apyanoopa pisithair hitha !!’[19]

i.e. Nasya Karma, Moordha Taila (application of oil to the head), Tarpana Kriya, Nadi Sweda, Upanaha Sweda are included in the treatment principle of Ardita.

Acharya Sushruta has also supported the above view.

CASE REPORT

A 63 years old man visited in 2016 at Shalakya OPD of Patanjali Ayurved Hospital as a diagnosed case of facial paralysis. According to him, one day morning when he woke up from the bed, noticed a sudden weakness in right side of face. Also right side of the mouth was deviated to opposite side, with difficulty in chewing and holding water in the mouth. He could not close his left eye completely. He noticed watering from the left eye also. He
consulted an allopathic doctor and took a steroid therapy for 10 days. Having gotten no relief from Allopathic treatments he visited this hospital.

As discussed above, facial paralysis is equivalent to disease Ardita described in Ayurvedic literature. Taking this very fact into consideration, the patient was introduced following Ayurvedic procedures for 7 days:

I. Ksheerdhooma Nasya – with Ksheerabala Taila (101A)
II. Kawala/Gandusha – with Mulethi, Bala, Lodhra and Irimeadi Taila
III. Sthanika Pichu – with Prasaarini Taila
IV. Shirodhara – with \textit{Mahanarayana Tailam} for 45min.
V. Matravasti with Ksheerabala Taila

\textbf{Details of procedures}

First of all, Mukhaabyanga (using Prasarini \textit{Taila} for 10min) followed by Naadi Sweda with steam of decoction of Dashmoola, Rasna and Bala for 10 minute was done as a preparatory phase which was followed by \textit{Ksheera Dhum Nasya}, (with \textit{Ksheerapaka} of Bala, Dashmool, and Rasna.) After \textit{Nasya}, \textit{Kavala} (with Mulethi, Bala, Lodhra and Irimeadi Taila) was carried out which was succeeded by Sthanika Pichu with Prasaarini Taila for 3 hours. Afterwards Shirodhara with \textit{Mahanarayana Tailam} for 45min was introduced. As a final procedure, the patient was made to undergo the process of Matravasti with Ksheerabala Taila.

After the completion of these 7-day procedures, in order to maximize their effects, he was advised to take internal medicines (vatashamak aushadhi) along with continuing facial exercise and \textit{Mukhaabyanga} for a period of 2 weeks.

\textbf{OBSERVATIONS AND RESULTS}

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

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

In Facial palsy or Ardita, facial nerve dysfunction leads to facial muscle paralysis with impairment of both sensory and motor functions. These functions are governed by Vata, 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 the sensory motor integrity also. Swedana liquefied the deranged Dosha and facilitated its expulsion by subsequent procedure. The pacification of vitiated Vata was further enhanced by Ksheeradhuma Nasya by virtue of its nourishing capacity. Kavala performed after Nasya, was capable of clearing the remaining Dosha.
So far as Shirodhara is concerned, prolonged and continuous pressure due to pouring of the medicated liquid had an effect on impulse conduction through tactile and thermo receptors and resulted into the improvement observed.

*Vasti - Vasti* is the best treatment for *Vata* as said by *Acharya Charaka* "Vastih Vataharanam". *Vasti* drug first reaches to the *Pakvashaya* (large intestine). *Pakvashaya* is the chief site of *Vatadosha*. Thus, by its action on the chief site, *Vasti* gets control on *Vata* all over the body.

According to mainstream healing science, as per *Vasti* /Enema concerned, in trans rectal route, the rectum has a rich blood and lymph supply and drug can cross the rectal mucosa like other lipid membrane. Thus by entering in general circulation, *Vasti* drugs acts on whole the body.

**CONCLUSION**

The potential of Ayurvedic treatment is yet to be exploited enthusiastically and carefully. Facial paralysis can be successfully managed by Ayurvedic treatment with lesser chance of recurrence and without any side effects.

**REFERENCES**

4. www.healthline.com