



Case Study

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AYURVEDIC MANAGEMENT OF BELL'S PALSY: A CASE STUDY

Praveen BS¹, Dharshana Krishnan O^{2*}

¹ Professor and HOD, Department of Panchakarma, Alva's Ayurveda Medical College, Moodbidri, Dakshina Kannada, Karnataka, India

² PG Scholar, Department of Panchakarma, Alva's Ayurveda Medical College, Moodbidri, Dakshina Kannada, Karnataka, India

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*Corresponding author

E-mail: dharshanakrishnanao@gmail.com

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ABSTRACT

Introduction: Vatavyadhi is considered one of Mahagada. Ardita vata is one among the vatavyadhi, which may be correlated to Bell's palsy due to the resemblance of signs and symptoms like deviation of angle of the mouth, decreased function of the affected muscle, numbness or pain in the affected side of the face. Bell's palsy is the most common unilateral lower motor neuron facial palsy that usually develops spontaneously. Bell's palsy is around 23 per 100,000 people per year, and it affects men and women equally, with a peak incidence between the age group 10-40 years. Ardita can be successfully managed with Ayurvedic treatment, viz. Nasya karma, Murdhni taila, Karnapurana, Snehana Svedana. Materials and method: A 49-year-old male patient complained of deviation of the angle of the mouth towards the left side and was unable to close the right eye for four days was reported to Panchakarma OPD of Alva's Ayurveda Medical College and hospital, Moodbidri. Snehana, Svedana, Nasya karma and Murdhni taila were selected, along with internal medications and Kinesio taping. The duration and outcome of the treatments were recorded. Result: The patient recovered markedly with the treatment. Conclusion: Ardita can be managed successfully with various Panchakarma measures, internal medications, and the taping technique.

Keywords: Vatavyadhi, Ardita, Bell's palsy, Panchakarma, Physiotherapy

INTRODUCTION

Bell's palsy is the most common cause of unilateral peripheral facial weakness with acute onset. It may occur at any age and affects men and women more or less equally¹. The annual incidence of this idiopathic disorder is approximately 25 per 100,000 annually or about 1 in 60 people in a lifetime². Ardita is one among the nanatmaja vata vyadhi³. Excessive laughing, speaking loudly, chewing hard food, yawning, sneezing, carrying heavy loads on the head, sudden movement of the head and neck, and exposure to cold and wind are the etiological factors for the manifestation of Ardita. Due to the vata prakopa, distortion in half of the face, the curvature of the nose, eyebrow, forehead, eye and mandible are observed⁴.

Charaka opines Facio-Brachio-Crural hemiplegia as Ardhita. Whereas other scholars opine presentation like Bell's palsy is considered as Ardita. Management of Ardita may be simulated with vata vyadhi treatment principles. If vata dosha is not associated with other doshas, it should be treated with Snehana (oleation therapy). Moreover, the person who has become weak by drinking fats should be reassured and administered oleation therapy by use of milk, soups of grains, meat soup, the meat of animals domesticated aquatic and marshy lands or with payasa (milk pudding), krishara (rice boiled with green gram) mixed with fats, sours and salts and also by administration of therapies like Anuvasana (oil enema), Navana (nasal medication), intake of Tarpana ahara (foods added with fats), and doing Svedana (giving sudation therapy) by sankara sveda repeatedly^{5,6}.

Specific treatment of Ardita includes Navana Nasya (nasal medication), Murdhni taila (anointing oil on the head), Tarpana (filling oil to the ears and eyes), intake of Tarpana ahara

(nourishing foods), Nadi Sveda (fomentation) and Upanaha (poultice) with anupa pashu pakshi (meat of marshy animals and birds). It is also advised to do Vamana (emesis) if it is associated with swelling and Siravyadha (venesection) if there is a burning sensation and redness of the affected side^{7,8}. The treatment described for Ardita is safe and effective. The treatment provides strength to facial muscles, strengthens the nerves, and improves blood circulation; there will not be any disease recurrence.

Physiotherapy plays a pivotal role in the rehabilitation of Bell's palsy. The patient was advised to do Kinesio taping and Mirror therapy daily. Kinesio taping, a technique that uses latex-free tape structurally similar to the human skin, is used in conjunction with other physical modalities in rehabilitating some musculoskeletal and neurological conditions. It decreases pain by stimulating the neurological system, restores correct muscle function by supporting weakened muscles, reduces congestion of lymphatic fluid or oedema under the skin, and decreases muscle spasms⁹. Mirror therapy works on the principle of mirror neuron systems and visual feedback. In 2012 Cochrane review found the positive effects of Mirror therapy on motor function and activities of daily living. Facial exercises are proven to be for muscle activity and lip and tongue dysfunction, which are done to restore function¹⁰.

CASE HISTORY

A 49-year-old male patient reported to Alva's Ayurveda medical college and hospital, Moodbidri, in May 2021. The main complaints were deviation of the angle of the mouth towards the left, unable to close the right eye and raise the forehead for four days and associated ear pain since then. The patient received medical management, which included steroid and antiviral drugs, and no cure was noted for the condition, so he approached the

hospital for better management. Nothing significant was added to the history of past illness and family history. In the personal history, appetite was good, bowel habits were regular, micturition frequency was 4-5 times/day, sleep was sound, and in vihara excessive travel, atiseethala vayu sevana was noted. The study was carried out after obtaining consent from the patient on the first day of treatment.

On physical examination

On general examination, the patient was found to be normal. Nervous system examination revealed conscious, well-oriented. Forehead frowning, eyebrow-raising, eye closure, blowing of cheeks – not possible on the right side, clenching of teeth – not possible on right side denture, nasolabial fold – obliterated in the right side, taste perception – not affected, Bell’s phenomenon - present on the right side, angle of mouth – deviated to the left side, facial symmetry – asymmetrical, vertigo and tinnitus-absent.

Treatment Plan

Table 1: Treatments advocated during hospitalization

| Date | SN | Treatment | Medicine Used |
|--|----|--|---|
| 17/5/2021 - 20/5/2021 | 1 | Sthanika Abhyanga | Prabhanjana vimardhana taila |
| | 2 | Sthanika Svedana | Arka patra pinda sveda |
| | 3 | Nasya | Shadbindhu taila – 4 ml in each nostril |
| | 4 | Taping was done (Dynaplast). Mirror exercises | |
| 21/5/2021 - 25/5/2021 | 1 | Sthanika Abhyanga | Prabhanjana vimardhana taila |
| | 2 | Sthanika Svedana | Balamoola saditha shashtika shali pinda sveda |
| | 3 | Nasya | Karpasasthyadi taila - 4 ml in each nostril |
| | 4 | Taping Mirror exercises | |
| Shamanoushadi, given during hospitalization | | | |
| 17/5/2021 - 25/5/2021 | | Danadanayanadi kashayam | 20 ml with an equal quantity of water, thrice daily, before food. |
| | | Eye drop containing- Madhu, Amalaki, Haridra, Vishnupriya, Satapatri, Vibhitaki, Yavani, Karpoora. | 2 drops once in 3 hours on the affected eye. |

Table 2: Treatments advocated during discharge and follow up

| Date | SN | Treatment | Medicine Used |
|--|----|--|---|
| 26/5/2021 - 7/6 /2021 | 1 | Shiro Pichu | Karpasasthyadi taila- Kept for 2 hours |
| | 2 | Pratimarsha Nasya | Mahamasha taila- 1 ml in each nostril |
| 1 ST Follow up 7/6/2021 | 1 | Shiro Pichu | Karpasasthyadi taila -Kept for 2 hours |
| | 2 | Pratimarsha Nasya | Mahamasha taila- 1ml in each nostril. |
| 2 nd Follow up 14/6/2021 | 1 | Shiro Pichu | Karpasasthyadi taila- Kept for 2 hours |
| | 2 | Pratimarsha Nasya | Mahamasha taila- 1 ml in each nostril |
| 26/5/2021- 7/6/2021 | | Mirror exercise advised to do. | |
| Shamanoushadi, given during discharge and follow up | | | |
| 26/5/2021- 7/6/2021 | | Dhanadanayadi kashayam | 20 ml with an equal quantity of water, thrice daily, before food. |
| | | A capsule containing Ativisha, Atibala, Vacha, Vriddhadaruka, Vajradanthi, Devadaru, Bharangi, Dashamoola, Dusparsha, Yavani, Pushkaramoola, Sadapushpa, Erandamoola, Balamoola, Amrita, Nirgundi. | 500 mg- thrice daily, after food. |
| | | A capsule containing Brihat Vata Chintamani Rasa, Dashamoola, Trayodasanga Guggulu, Lashuna, Bala, Eranda, Kapikachu. | 500 mg- thrice daily, after food. |
| 1 ST Follow up 7/6/2021 | | Ashtavargam kashayam | 20 ml with an equal quantity of water, twice daily, before food. |
| | | A capsule containing Brihat Vata Chintamani Rasa, Dashamoola, Trayodasanga Guggulu, Lashuna, Bala, Eranda, Kapikachu. | 500 mg- thrice daily, after food. |
| | | Tab. Triphala Guggulu | 500 mg - thrice daily, after food. |
| 2 nd Follow up 14/6/2021 | | A capsule containing mahavata Vidhwams Rasa, Sameer Pannaga Rasa, Ekangaveera Rasa, Sootashekhara Rasa. | 250 mg - thrice daily, after food. |
| | | Tab. Mahayogaraja Guggulu | 500 mg - thrice daily, after food. |

OBSERVATION AND RESULT

The assessment of the current case was done throughout treatment and follow-up. The different treatment modalities like Snehana, Svedana, Nasya and Masthishky were adopted for one month. Shaman aushadi was also continued for the same course. During hospitalization initially, for four days, sthanika abhyanga with

Prabhanjana vimardhana taila, followed by sthanika Arka patra pinda sveda and Nasya with Shadbindhu taila was advised along with shaman aushadhi Danadanayanadi kashayam. During the examination on the 4th day, these findings were noted - deviation of the angle of mouth – decreased by 10%; ear pain- reduced by 10%; Bell’s phenomenon- Improved; forehead frowning- right side, Closure of eyes- 10% improved, Nasolabial fold slightly

visible on the right side. Later five days of hospitalization sthanika Abhyanga with Prabhanjana vimardhana taila, followed by Balamoola saditha shashtika shali pinda sveda and Nasya with Karpasasthyadi taila was advised along with the same shaman aushadi. During the examination, deviation of the angle of mouth decreased by 40%, Ear pain reduced by 90%, Bell's Phenomenon improved, forehead frowning mildly on the right side, closure of eyes increased by 70% improved, nasolabial fold visible on the right side was observed. At the time of discharge, Shiro pichu with Karpasasthyadi taila and Pratimarsha Nasya with Mahamasha taila was advised along with shaman aushadhis Danadanayanadi kashayam, a capsule containing vatahara drugs. And during the first follow-up, a deviation of the angle of mouth decreased by 50%, and ear pain was absent; Bell's phenomenon improved, with forehead frowning mildly on the right side, complete closure of eyes, and nasolabial fold visible on the right side was observed. During the second follow-up, findings were noted- deviation of the angle of mouth decreased by 80%, ear pain was absent, Bell's phenomenon was absent, forehead frowning of right side possible, complete closure of eyes, and nasolabial fold visible on the right side.

DISCUSSION

The patient was exposed to nidana, such as climatic variations, sheetala vayu sevana and uchhair bashya due to the daily task involved in his profession. Vata and kapha prakopa take place in the dakshina mukhardha bhaaga. prakupitha vata and kapha cause vakratha of bru, lalata, akshi, hanu and vama mukharda vakratha and might have resulted in Ardita. Clinical features of Ardita vata nearly simulate Bell's palsy in contemporary science, where the facial nerve palsy presenting with the above symptoms is seen.

Bell's palsy is the most known cause of the acute onset of unilateral peripheral facial weakness. The reported annual incidence of Bell's palsy in different parts of the world varies from 11 to 40 per 100000 population. The incidence of Bell's palsy is 20-30 cases for 100,000 in India and almost accounts for 70% of all cases of unilateral peripheral facial palsy¹¹. Although this condition is steadily settling after some time, it needs the proper and timely organization of medication to avoid irreversible changes. The patient was provided with Ayurvedic management, including Panchakarma and internal medication. The treatment of Ardita vata includes Nasya, Murdhni taila, Tarpana, Karnapurana, and Upanaha, along with internal medication, which subsides aggravated vata dosha¹².

In Bell's palsy, facial nerve dysfunction leads to facial muscle paralysis with impairment of both sensory and motor functions. So, sensory and motor activities can be regained by normalising the functions of vata. Treatment was planned based on the signs and symptoms shown by the patient. Nasya karma is a prime treatment modality in treating pathologies of the head and neck¹³. Considering Shiras as adhishtana of Ardita and impairment of the normal function of udana and vyana vata, Nasya was advised as a line of treatment¹⁴. Mastishkya or Murdhni taila are considered essential in managing Bell's palsy. Especially Shiro basti is indicated in Ardita. Murdhni taila helps in relieving anxiety and thus helps reduce blood pressure which is generally observed as co-morbidity. Moreover, Mastishkya, like Talam and Talapodichil, are essential to reduce the symptoms of vata¹⁵.

Initially, for four days, shodhana nasya with Shadbindu taila¹⁶ was advised as kapha dominant features were present, along with Abhyanga - Prabhanjana Vimardana taila, Svedana with Arka patra pottali sveda advised. Prabhanjana Vimardana taila¹⁷ indicated in Ardita and Arka¹⁸ because of its ushna veerya and teekshna guna; it balances both vata and kapha, finally helps in

removing srotho rodha. After four days, once the vata is exposed, brumhana line of treatment was followed. Abhyanga with Prabhanjana Vimardana taila, Svedana with Balamoola saditha shashtika shali pinda sveda, Nasya with Karpasasthyadi taila was advocated as indicated in the management of Ardita¹⁹. The patient was advised to do Shiro Pichu - Karpasasthyadi taila and Pratimarsha Nasya - Maha masha taila at home daily for 20 days.

From the first day, Panchakarma treatments shaman aushadhis were also advised for the patient. Danadanayanadi kashayam comprises teekshna veerya drugs, which, when given, initially removes avarana by kapha dosha. Later, Ashtavargam kashayam was prescribed for a patient with no or minimal kaphavruttha dosha and as it is vatahara in nature. A capsule containing vatahara drugs were given as it is directly indicated in neurological conditions.

Physiotherapy management like mirror therapy and Kinesio taping was advised along with Ayurvedic management as rehabilitation methods as it is a low-cost method to improve motor activity. Previous studies have revealed mirror therapy improves motor functions, manual skills and activities of daily living. In mirror therapy, the affected person feels the imaginary movement of the affected body part behaving like a normal body part through the mirror¹⁰. When the patient is attached to Kinesio taping, there will be obvious muscle tension and tightness. At the same time, it can stimulate the skin mechanoreceptors and increase sensory input and proprioceptive feedback. Because of its elastic effect, Kinesio taping lifts the skin, improves skin folds, and reduces the pressure in the surrounding tissues of the nerves, thereby increasing blood circulation and lymph flow, which can promote the absorption of oedema and the diffusion and metabolism of inflammatory factors, this creates a good internal environment for nerve recovery. This effect increases the excitability of the motor unit and induces muscle spindle reflex. This strengthens the weak muscles help to realign structures around the face and modulate normal muscle activities²⁰.

CONCLUSION

Ardita is one among the nanatmaja vata vyadhi. It can be managed successfully with Ayurvedic interventions. Although Bell's palsy is considered vata vyadhi, kapha vatahara treatment is recommended in the case of kapha anubandha as an initial measure. Hence, shodhana nasya was initially planned, followed by vatahara brumhana treatment. Mastishkya also plays a significant role in controlling morbidities caused by vata. Kinesio taping is considered along with other treatments expecting speedy recovery of the condition. Early diagnosis and treatment intervention plays a significant role in successfully managing Bell's palsy. Ayurvedic management and physiotherapy techniques play a pivotal role in the rehabilitation of the same.

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