



Research Article

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ROLE OF NAVANA NASYA WITH MAHAMASHA TAILA AND SHIROBASTI WITH KSHEERABALA TAILA IN THE MANAGEMENT OF ARDITA: A COMPARATIVE CLINICAL STUDY

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ABSTRACT

Ardita is a common clinical presentation among different neurological disorders which is leading to high incidence of morbidity. Ardita can be correlated with Facial paralysis in modern science, in which both facial and verbal expressions are lost in such a way that the patient loses the essential human characteristic feature, the Communication. In the present clinical study, the subjects were incidentally selected according to specifically designed inclusion criteria and were randomly placed in two groups namely NavanaNasya Group and Shirobasti Group containing 15 subjects in each group. The effect of therapy given was assessed on the basis of improvement in the Subjective parameters like pain over the affected side (Mukhaparshwagrevavedana), Dysarthria (Vaaksanga), Earache (Karnavedana) and Objective Parameters like deviation of mouth (MukhaVakrata), inability to close eye of affected side (Akshinimeshaasamarthya), absence of wrinkles on affected half part of forehead (Lalatavalinasha) and dribbling of saliva (Lalasarava). In the trial, it was found that Navana Nasya group with Mahamasha Taila is much more effective on all parameters except for the absence of wrinkles on affected half part of the forehead where Shirobasti group with Ksheerabala Taila was found to be more effective. Though both groups provided significant results in subjects of Ardita, the relief provided by Navana Nasya group was comparatively better than the Shirobasti group. The results of the follow-up study showed that the relief provided by the therapy remains consistent as no recurrence was reported by any subjects up to the one month follow up study.

Keywords: Ardita, Fascial paralysis, NavanNasya, Shirobasti.

INTRODUCTION

In this new millennium, as a result of highly progressive and fast lifestyle, people are not paying attention to their physical and mental health. Diseases have become a curse to the healthy life and manifest themselves as an obstacle in leading a happy and prosperous living.¹ Irregular food habits, suppression of natural urges, lack of proper sleep, stressful life has become part of our life, due to which people are more vulnerable to various neurological conditions. Among which, Ardita is a common presentation, leading to high incidence of morbidity. In Ayurveda, Ardita is characterized by symptoms like Mukhavakrata, Vakasanga, Shirokampa, Grivachibudanta Vedana, Netra Vikruti.² Ardita, being a Vatavyadhi, is included amongst 80 types of Vata-NanatmajaVikara. It is a disease in which some of the Jnanendriya and Karmendriya, located in the head are affected, particularly in their function.³ Vagbhata has quoted this disease with the name Ekayama which means the disease where pain and deformity occur in one side of face.⁴ Charaka has stated that symptoms of Ardita are seen in one half of face, trunk, extremities or they may be restricted only to face and is episodic in nature.⁵ Ardita involves one lateral side of the face only, sparing trunk and extremities and is non-episodic in nature is the opinion of Sushruta⁶ while Vagbhata has stated Ardita is non-episodic and affects either left or right lateral or upper or lower half of body. Ardita can be correlated with Facial paralysis in modern science, in which both facial and verbal expressions are lost in such a way that the patient loses the essential human characteristic feature, the Communication. Facial paralysis occurs due to the weakness or paralysis of facial nerve i.e. 7th cranial nerve. Facial weakness may be due to a lesion in the upper motor neuron, lower motor neuron or is Bilateral. A supranuclear lesion of the facial nerve produces asymmetry of the lower face, the eyelid movements are scarcely

weakened, but the angle of lip droops and cannot be elevated. In lower motor neuron lesion or Bell's palsy, the onset is rapid, the patient notices stiffness of the affected side of the face, the patient cannot close the eye properly and tear trickle from the flaccid lower lid. Articulation is at first indistinct, fluids are spilled during drinking and food collects between the cheek and gum⁷.

In contemporary system of medicine, there is no proven medical treatment, though a course of a steroid such as Prednisolone daily for a week may speed recovery, and the use of Antiviral has been suggested. But the long-term use of these medicines would cause systemic disturbances thereby paving way for other disorders in the body.⁸ Ayurveda aims to prevent the manifestation of the imbalances in the body and cure those imbalances with a specific line of treatment schedule. Chikitsa sutra of Ardita includes Navana Nasya, Moordhani Tailam, Tarpana, Nadi sweda etc. and these procedures play a vital role since there is Vikruti in the Mastishka Marma sthana.⁹ In Ayurveda, Herbal and Herbo-mineral compounds which were advised for different diseases are comparatively effective and cheaper. Apart from this, Panchakarma - an eliminative therapy is also employed along with shaman oushadi. Keeping in view the vyadhi adhistaana and dosha involvement, Navana Nasya with Niramisha Mahamasha Taila was selected. Shirobasti even though is not an eliminative therapy, but is one of the procedures of Moordhani tailam indicated in Vatavyadhi. So Shirobasti with Ksheerabalataila was selected in this study.

Aims and Objectives

- To compare the effect of Nasya Karma and Shirobasti in Ardita.
- To assess the mode of action of Nasya Karma and Shirobasti in the management of Ardita.

MATERIAL AND METHODS

Subjects attending the OPD and IPD of Post Graduate Department of Kaya Chikitsa, Ayurveda Mahavidyalaya, Hubli were taken randomly for study. Regular informative were placed in the local print media to create awareness about the condition and its management. A total of 30 patients were selected irrespective of their age, sex and religion and were randomly divided into Navana Nasya Group and Shirobasti Group containing 15 subjects in each group.

Inclusion Criteria

- Subjects with features of Arditaroga explained in classical texts.
- Subjects from either sex will be selected in the age group of 20-70 years.
- Subjects who are fit for Nasya karma and Shirobasti karma.

Exclusion Criteria

- Subjects with uncontrolled metabolic disorders and other systemic disorders.
- Subjects with HIV and HBsAg positive.
- Subjects with degenerative disorders of the brain.
- Subjects with Intra cranial infectious disease
- Subjects who are not fit for Nasya karma and Shirobasti karma.

Laboratory Analysis

- Blood: Common Hematological investigations like Hb%, TLC, DLC, E.S.R and R.B.S.
- Urine: Common urological investigation like Urine sugar, Albumin and Microscopic examination.
- Special Investigations: C T scan of the brain will be done if necessary.

Method of Study

The present study was carried out in accordance with ethical principles by following International conference of Harmonization-Good Clinical Practices Guidelines (ICH-GCP).

Administration of drugs

Mahamasha taila was used for Navana Nasya and Ksheerabala taila for Shirobasti in this clinical study.

Assessment

The assessment was based on the improvement in the Subjective and Objective Parameters.

Subjective Parameter

- Mukhaparshwagreevavedana
- Vaksanga
- Karnavedana

Objective Parameter

- MukhaVakrata
- Akshinimeshaasamarthya
- Lalatavalinasha
- Lalasrava

These were graded as follows and were assessed before and after treatment.

Mukhaparshwagreevavedana

Grade 3: Pain all over affected side/constant
Grade 2: Pain on half of affected side of face/intermittent
Grade 1: Pain limited to one site/only at night/morning
Grade 0: No pain

Vaksanga (Dysarthria)

Grade 3: Complete Vaksanga
Grade 2: Pronouncing with great efforts
Grade1: Pronouncing with less efforts
Grade0: Normal speech (whistling)

Karnavedana (Ear ache)

Grade3: Constant pain
Grade2: Intermittent pain
Grade1: Partial pain
Grade0: No pain

Mukhavakrata (Deviation of mouth)

Grade 2: More than 1 cm deviation of mouth towards healthy side of face from central line
Grade 1: Less than 1 cm deviation of mouth towards healthy side of the face from the central line.
Grade 0: No deviation of mouth

Akshinimeshaasamarthya (Inability to close eye on affected side)

Grade 2: Less than half of cornea covered
Grade 1: More than half of cornea covered
Grade 0: Complete closure of cornea

Lalatavalinasha (Absence of wrinkles on affected half part of forehead)

Grade 3: Complete absence of wrinkles on affected part of forehead compared to healthy side
Grade 2: Minimal appearance and less prominence of wrinkles on affected part of forehead
Grade 1: Moderate appearance and prominence of wrinkles on affected part of forehead
Grade 0: Normal appearance of wrinkles on forehead symmetrically on both sides

Lalasarava (Dribbling of saliva)

Grade 3: Constant (profuse) salivation from the corner of affected side of mouth
Grade2: Intermittent (moderate) salivation from the corner of affected side of mouth
Grade 1: Partial (mild) salivation from the corner of affected side of mouth
Grade0: No salivation from the corner of the affected side of the mouth.

Statistical Analysis

The analysis of the effects of therapy was based on "t-test" applications. The efficacy of NavanaNasya and Shirobasti will be compared. The significance is discussed on the basis of Mean Scores, Percentage, SD, SE, 't' and 'p'-values.

Level of significance:

Values $p > 0.05$ is statically insignificant

$p = / < 0.02, < 0.05$, is statically significant

$p = / < 0.01$ and $p = / < 0.001$ is statically highly significant.

OBSERVATION AND RESULT

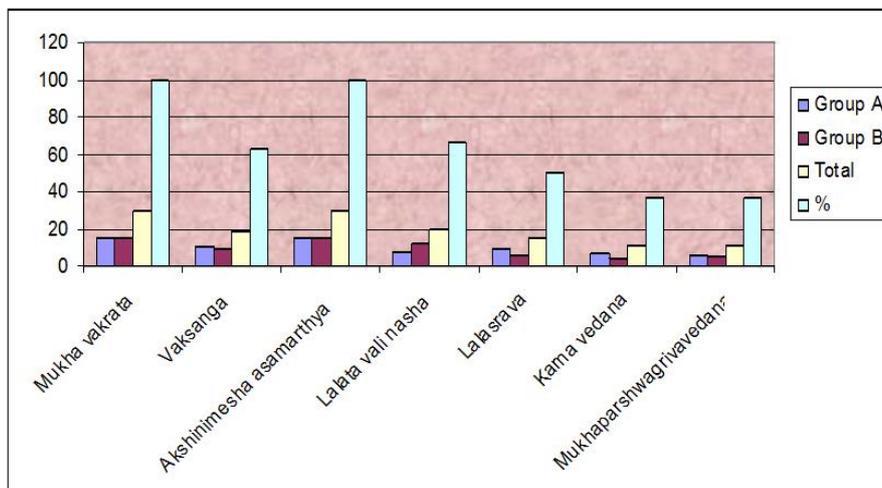


Figure 1: Chief complaint wise distribution of patients in both Groups

Table 1: Effect of therapies on chief complaints of patients of Ardita

| Sl. No. | Parameters of assessment | No. of Pts | Group A (NavanaNasya) | | | Group B (Shiro Basti) | | | ‘t’ | p | Remarks |
|---------|----------------------------|------------|-----------------------|----------|----------|-----------------------|----------|----------|------|-------|---------|
| | | | Mean | S.D. (±) | S.E. (±) | Mean | S.D. (±) | S.E. (±) | | | |
| 1 | Mukha parshwa greevavedana | 30 | 0.67 | 0.90 | 0.23 | 0.53 | 0.83 | 0.22 | 0.42 | >0.10 | NS |
| 2 | Vaksanga | 30 | 1.20 | 0.94 | 0.24 | 0.80 | 0.77 | 0.20 | 1.27 | >0.10 | NS |
| 3 | Karna vedana | 30 | 0.66 | 0.82 | 0.21 | 0.40 | 0.74 | 0.19 | 0.94 | >0.10 | NS |
| 4 | MukhaVakrata | 30 | 0.53 | 0.52 | 0.13 | 0.40 | 0.51 | 0.13 | 0.72 | >0.10 | NS |
| 5 | Akshinimeshaasamarthya | 30 | 0.94 | 0.80 | 0.21 | 0.60 | 0.63 | 0.16 | 1.27 | >0.10 | NS |
| 6 | Lalatavalinasha | 30 | 0.40 | 0.51 | 0.13 | 0.86 | 0.52 | 0.13 | 2.50 | >0.02 | S |
| 7 | Lalasrava | 30 | 1.07 | 1.03 | 0.27 | 0.70 | 0.90 | 0.23 | 1.13 | >0.10 | NS |

Table 2: Overall Effect of Therapy on different parameter in Group A (Navan Nasya)

| General Symptoms | % | Over all Relief |
|---------------------------|-------|-----------------|
| Mukhaparshwa greevavedana | 83.3 | Marked Relief |
| Vaksanga | 78.2 | Marked Relief |
| Karna vedana | 90.9 | Marked Relief |
| MukhaVakrata | 38.09 | Mild Relief |
| Akshinimeshaasamarthya | 56 | Moderate Relief |
| Lalatavalinasha | 27.27 | Mild Relief |
| Lalasrava | 72.72 | Moderate Relief |

Marked relief was observed in symptoms like Mukhaparshwagrevavedana, Vaksanga and Karna vedana. Moderate relief was observed in symptoms like Akshinimeshaasamarthya, Lalasrava and Mild relief was observed in Mukhavakrata and Lalatavalinasha.

Table 3: Overall effect of Therapy on different parameters in Group B (Shiro Basti)

| General Symptoms | % | Over all Relief |
|----------------------------|-------|-----------------|
| Mukha parshwa greevavedana | 66.6 | Moderate Relief |
| Vaksanga | 57.14 | Moderate Relief |
| Karna vedana | 75 | Moderate Relief |
| MukhaVakrata | 26 | Mild Relief |
| Akshinimeshaasamarthya | 36 | Mild Relief |
| Lalatavalinasha | 56.52 | Moderate Relief |
| Lalasrava | 66.66 | Moderate Relief |

Moderate relief was observed in symptoms like Mukha parshwa greevavedana, Vaksanga, Karnavedana, Lalatavalinasha, Lalasrava and Mild relief was observed in symptoms like Mukhavakrata and Akshinimeshaasamarthya.

DISCUSSION

Drug effect

NiramishaMahamashaTailawas used for Nasya karma in Group A (Navan Nasya) in this clinical trial and it is mentioned in BhaishajyaRatnāvali as a good remedy for Ardita. Masha, the main content of NiramishaMahamashataila has Madhura rasa, Guru, Snigdha guna, Ushnaveerya and Madhuravipaka. It is Vatahara and Kaphapittakara. Other main ingredient, TilaTaila has Madhura rasa, Guru, Snigdha guna, Ushnaveerya and Madhuravipaka and is best Vatashamaka. All other ingredients by virtue of their guna are Vatahara in nature.

KsheerabalaTaila was used for Shirobasti in Group B in this clinical trial and its reference is taken from Shasrayogam. It is well indicated in Vata Vyadhi, as the properties of KsheerabalaTaila are suggestive of Vatahara, Rasayana, Jivaniya, Balya, and Brimhana.

Probable mode of action of Nasya

Charaka considered Nasya as the gateway of Shiras. The drug administered through the nose in the form of Nasya reaches the brain & pacifies Dosha which is responsible for producing the disease. Regarding the mechanism of action of Nasya karma, it is presumed that Nasya acts locally as well as on many systems by direct contact with nerve terminals or absorption of the drugs by the nasal mucosa. Whenever there is irritation, the circulation to local area increases. The Nasya with MahamashaTaila irritates the nasal mucosa leading to an edematous response with local hyperemia which enhances drug absorption. Since the drug administered itself being fat in nature hence there is no functional Blood-Brain barrier for MahamashaTaila. During Nasya procedure, the lowering of the head and fomentation to face seem to have an impact on blood circulation to the head. The efferent vasodilator nerves which are located on the superficial surface of the face get stimulated by Snehana and Swedana leads to momentary hyperemia in the head region.

Probable mode of action of Shirobasti

Shiras is considered as one of the most vital part (Marma) of the body and root of all motor (voluntary or involuntary) and sensory activities of the body. So in all Psychosomatic and Neurological disorders, regulation of its functions is the main key of management. Shirobasti has been reported to be having an excellent result on such disorders as it gives strength to the central nervous system.¹⁰ It calms down both the mind and the senses which allow the body's natural healing mechanism to release stress from the nervous system by pacifying Vata dosha, particularly Pranavayu. Shirobasti is specifically selected here to study its efficacy on Ardita as it belongs to Snehana, especially Bahyasneha and it is suggested as line of treatment of the disease in almost all Ayurvedic texts. Shirobasti is a snigdha sweda yukta procedures. It has dual benefits of both Snehana and Swedana. Ardita being a Vata Vyadhi, Snehana is exquisitely recommended for it. Snehana is such a procedure which possesses properties opposite to Vata and thus it plays an important role in the alleviation of vitiated Vata. The superficial fascia of the scalp provides a proper medium for the passage of vessels and nerves to the skin. The superficial veins of neck and head commence in a diffuse network in the scalp. These drain

into the collecting trunks. There are several routes through which extra cranial veins communicate with the intracranial veins. These veins are valve less, inter connecting and have bi-directional flow. The temperature of the taila in Shirobasti leads to peripheral vasodilation. This increases the peripheral circulation which nourishes the tissues, hastens phagocytosis and brings about regenerative changes. Thus, Shirobasti is a very complex process certainly influencing the Shareerika and the Manasikadosha, and also has a possible influence on the cerebral cortex as well.

CONCLUSION

The Present clinical trial has clearly revealed that both the Mahamasha Taila and Ksheerabala Taila are quiet effective drugs in the management of Ardita. Navananasya with Mahamasha Taila is much effective on parameters like Mukhaparshwagreevavedana, Vaksanga, Karnavedana, Mukhavakrata, Akshinimeshaasamarthya, Lalasrava whereas Shirobasti with Ksheerabala taila is more effective on parameter Lalatavalinasha. Though both NavanaNasya with Mahamasha Taila and Shirobasti with KsheerabalaTaila provided significant results in subjects of Ardita, the relief provided by Nasya group was comparatively better than the Shirobasti group. During the treatment period, no complication was noticed in subjects of both the groups. Ardita, being a Vata-vyadhi which is neuromuscular in origin can be managed through Ayurvedic treatment modalities effectively. The results of the follow-up study showed that the relief provided by the therapy remains consistent as no recurrence was reported by any subjects up to the one month follow up study. Further, experimental and clinical trials must be needed to be done with the larger samples so as to establish these therapies as standard procedures for the management of Ardita.

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