

## INUMERATION OF THE EFFECT OF TRADITIONAL MEDICINE ON DRY EYES

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### ABSTRACT

According to ancient research methodology, before establishing any theory, the findings should be subjected through some sequential steps. The research work is done to draw some conclusions or the *Nigamana* from the findings and results. To correlate the findings with the results, discussion or the *Upanaya* is needed. Hence, this is the most important part of any research work. It comprises the discussion of important points from Conceptual Study as well as the results obtained from Clinical Study. It is the step which helps in understanding and interpreting the subject with reference to its merits and demerits, and guides to the conclusive judgment. In this aspect the, discussion becomes a necessary part of any research work. *Chakshushya*, the term indicating regeneration of eye sight was in practice in India since centuries. The classics of ancient Indian's wisdom have invented and practiced many drugs like *Triphala*, *Saptamrita lauha* etc. diets, procedures i.e. Tarpana and regimen for the benefit of the eyes. Promotion of the visual acuity was considered as one of the priorities in the branch of *Shalakyia* Tantra of Ayurveda. Tarpana karma has been indicated in several eye diseases by various Acharya's but the main emphasis has been given on Dry eyes. Hence, here dry eyes selected for present study to assess the effect of ayurveda drug.

**Key Words:** *Chakshushya*, *Shalakyia Tantra*, Dry eyes, *Tarpana*

### INTRODUCTION

Ayurveda is a well-developed medical science. *Shalakyia* Tantra is a branch which deals with the diseases above the clavicle. From the description of Sushruta Samhita, it is clear that field of surgery was well developed in *Shalakyia* branch of Ayurveda in the ancient time. Modern medical science has made tremendous and remarkable progress and advances in the field of Ophthalmology and E.N.T. in recent times. No doubt that the understanding of human anatomy in recent era has revolutionized the medical science and the method of diagnosis. Still for many diseases, final solution is not yet achieved.

Today we are living in a highly sophisticated environment due to the development of the science. This has also an effect on our lifestyles and dietary habits. *Shushkakshipaka* is

one of the outcomes of this changing lifestyle, food habits and environment. Because of these reasons, the disease *Shushkakshipaka* had been selected for present study.

## METHODOLOGY

The present study has involved 40 patients of *Shushkakshipaka* out of which 34 patients completed the treatment. The diagnosis was made on the basis of signs and symptoms described in Ayurvedic and modern texts. Modern parameters were used to confirm the diagnosis.

Group A (*Yashtimadhu siddha-Ghrita Akshitarpana*):

Total 16 patients of this group were given *Yashtimadhu siddha-Ghrita* Tarpana in a dose of 30gm/patient/day both eyes for 5 days in a week.

Group B (*Go-Ghrita Akshitarpana*):

Total 18 patients of this group were administered Tarpana with *Go-Ghrita* as local therapeutic application in the dose of 30gm/patient/day both eyes for 5 days in a week. The treatment was given in total three sittings with interval of 15 days for each sitting. For the assessment of results ayurvedic as well as modern parameters were followed. The results obtained were statistically analysed by means of mean, percentage etc. and by using student's t – test the significance was calculated. The results obtained in this study were as follows.

## GENERAL DESCRIPTION OF THE PATIENTS

In the present study total 40 patients were registered and were categorized into two groups. Out of 40 patients, 06 patients in two groups discontinued the treatment against medical advice (LAMA). Hence the general observations of all the 34 patients who got registered on the present study are presented in the beginning of the observation section in clinical study followed by the effect of the therapy on 34 patients who have completed the course of treatment in the present study.

## EFFECT OF THERAPIES:

In all the patients of the present study affected from *Shushkakshipaka*, various symptoms were recorded and assessment was made as per the scoring mentioned in clinical study and the effects of all the drugs were observed. Similarly, the effect of the drug was observed on the objective parameters like visual acuity, *schirmers* test, Rose Bengal test etc. The overall effects of the therapies on various clinical symptoms in different groups is as given below –

## EFFECT OF THERAPIES ON SYMPTOMS:

Effect of Therapies on *Gharshan*: -

*Yashtimadhu-siddha Ghrita* was given as Tarpana to 16 patients of Group A and the symptom *Gharshan* was relieved by 85.71% highly significantly in this group. *Go-Ghrita* Tarpana was given on 18 patients of *Shushkakshipaka* in Group B. The *Gharshan* symptom was relieved by 77.41 % in this group, which is statistically highly significant.

Effect of Therapies on *Updeh*:

The symptom *Updeh* was relieved by 90% in Group A, which is statistically highly significant. In Group B, Tarpana with Go *Ghritha*, the symptom *Updeh* was relieved by 80%, which is statistically highly significant. So, the present clinical study shows that *Yashtimadhu-siddha ghritha* is more effective in treating the symptom *Updeh*.

#### Effect of Therapies on *Rukshta*:

The symptom *Rukshta* was relieved by 79.48 % in 16 patients of Group A, the result being statistically highly significant. The *Rukshata* was relieved by 54.54 % in 18 patients of Group B and the result was statistically significant. It reveals that *Yashtimadhu-siddha ghritha* is more effective in treating the symptom *Rukshata*.

#### Effect of Therapies on *Kunita*:

The symptom *Kunita* was relieved by 71.42 % in 16 patients of *Shushkakshipaka* in Group A, the result being statistically significant. There was 68.75 % relief in the symptom *Kunita* on 18 Patients of *Shushkakshipaka* in Group B, and the result was statistically significant. It reveals that *Yashtimadhu-siddha ghritha* is more effective in the treatment of *Kunita* in *Shushkakshipaka*.

#### Effect of Therapies on *Daruna*:

The symptom *Daruna* was relieved by 71.42 % in 16 patients of *Shushkakshipaka* in Group A, the result being statistically significant. There was 50.0% relief in the symptom *Daruna* on 18 Patients of *Shushkakshipaka* in Group B, and the result was statistically significant. It reveals that *Yashtimadhu-siddha ghritha* is more effective in the treatment of *Daruna* in *Shushkakshipaka*.

#### Effect of Therapies on *Krichhounmilana*:

The symptom *Krichhounmilana* was relieved by 76.19% in 16 patients of *Shushkakshipaka* in Group A, the result being statistically highly significant. There was 73.68% relief in the symptom *Krichhounmilana* on 18 Patients of *Shushkakshipaka* in Group B, and the result was statistically highly significant. It reveals that *Yashtimadhu-siddha ghritha* is more effective in the treatment of *krichhounmilana* in *Shushkakshipaka*.

#### Effect of Therapies on *Toda*:

The symptom *Toda* was relieved by 61.53% in 16 patients of *Shushkakshipaka* in Group A, the result being statistically significant. There was 53.84% relief in the symptom *Toda* on 18 Patients of *Shushkakshipaka* in Group B, and the result was statistically significant ( $P < 0.01$ ). It reveals that *Yashtimadhu-siddha ghritha* is more effective in the treatment of *Toda* in *Shushkakshipaka*.

#### Effect of Therapies on *Aavil Darshan*:

The symptom *Aavil Darshan* was relieved by 69.56% in 16 patients of *Shushkakshipaka* in Group A, the result being statistically significant. There was 17.49% relief in the symptom *Aavil Darshan* on 18 Patients of *Shushkakshipaka* in Group B, and the result was statistically

insignificant. It reveals that *Yashtimadhu-siddha ghrita* is more effective in the treatment of *Aavil Darshan* in *Shushkakshipaka*.

#### EFFECT OF THERAPIES ON ASSOCIATED SYMPTOMS:

Effect of Therapies on *Netrasharav*:

The associated symptom *Netrasharav* was relieved by 71.42 % in 16 patients of Group A, the result being statistically highly significant. *Netrasharav* was relieved by 60 % in 18 patients of Group B and the result was statistically significant. It shows that *Yashtimadhu-siddha ghrita* is more effective than *Go-ghrita* in treating symptom *Netrasharav* in *Shushkakshipaka*.

Effect of Therapies on *Netradah*:-

The associated symptom *Netradah* was relieved by 80 % in Group A, which is statistically highly significant. *Netradah* was reduced by 75% in Group B, which is statistically significant. It shows, it is evident that *Yashtimadhu-siddha ghrita* is more effective in treating associated symptom of *Netradah* than *Go-ghrita*.

#### DISCUSSION

*Yashtimadhu* and *Go-ghrita* both are having *Netra property*. *Go-Ghrita* contains K2 and *lionelic acid*. It is having *antiinflammatory* property. *Ghrita* is also rich in vitamin A. which reduces and treats dryness due to its deficiency. In *Netra Tarpan* all these properties nourish the conjunctival as well as corneal layers and avoid dryness and inflammation of tissue of conjunctiva and cornea. This helps to avoid dryness of eyes, also gives smooth effect to layers of conjunctiva and cornea. As *yashtimadhu-siddha ghrita* is having property of *vata pittahara* and In *Shushkakshipaka* due to continuous exposure both *vata* and *pitta dosha* get vitiate, so *yashtimadhu-siddha ghrita* is effective in *Shushkakshipaka*. Its *Chakshushya* guna improves the health status of eyes.

The clinical trial drug *yashtimadhusiddha- Ghrita* has predominance of *Madhura rasa* (33.33 %), *Guru guna* (28.57 %), *Sheeta veerya* (66.66 %), and *Madhura vipaka* (100%). Considering the *Doshakarma*, the trial drug is *Vatashamaka* (40.00 %), *Pittashamaka* (40.00 %), and *Kaphashamaka* (20.00 %) by virtue of its *Rasa, Guna, Veerya* and *Vipaka*. Thus, the overall effect of the compound drug is *Tridoshashamaka* and hence it disintegrates the pathology of the *disease Shushkakshipaka*, which is *Vata pradhana Tridoshaja* in its manifestation. In the present study, *Yashtimadhusiddha-Ghrita* has been used as a topical application in the form of *Tarpana*. According to *Charaka* (Ch. Su. 13/14), *Ghrita* is effective in subsiding *Vataja* and *Pittaja* disorders; it improves *dhatus* and is overall booster for improving *Ojas*. According to *Sushruta* (Su. Su. 45/96-97), along with above said properties it provides strength to eyesight (*Chakshushya*). *Bhavaprakasha* has also described *Ghrita* as *Rasayana, Chakshushya*, *Balya* and protects body from various diseases. When we look at above said qualities of *Ghrita*, mode of action for *Akshitarpana Kriya* which is mainly done with *Ghrita* can be specified as follows;

The *Ghrita* has the quality of passing into minutest channels of the body. Hence when applied in the eye, it enters into deeper layer of *Dhatus* and cleanses every minutest part of them. Hence the word *Chakshushya* is rightly applicable for application of *Ghrita* in the eyes.

Moreover, *Ghrita* due to its *Sansakaranuvartana* quality easily imbibes the properties of other drugs processed with it without leaving its own properties. Other drugs used in the *Yashtimadhusiddha -Ghrita* are also having *Chakshushya* properties. So, all these drugs processed with *Ghrita* are beneficial for *shushkakshipaka*.

Also, in the description of the *Drishti*, *Sushruta* has mentioned that *Sheeta dravyas* are *Satmya* for *Drishti*. *Ghrita* is also *Sheeta* *Veerya*, hence the eye being the site of *Alochaka* *Pitta* can be effectively managed by using constantly *Ghee* for *Akshi Tarpana*. *Ghrita* also contains properties like *Balya*, *Brimhana* and *Rasayana*, so it gives strength to the overall tissues of the eyeball as well as to the nervous tissues. *Ghrita* contains vitamin A, D, E, K and carotene in it. Vitamin A and E are antioxidant and vitamin A also keeps the outer lining of the eyeball moist. Digestion, absorption and delivery to a target organ system are crucial in obtaining the maximum benefit from any formulation. This is facilitated by *Ghrita*, since active ingredients of drugs are mixed with *Ghrita* and they are easily absorbed. Lipophilic action of *Ghrita* facilitates transportation to a target organ and final delivery inside the cell, because cell membrane also contains lipid. This lipophilic nature of *Ghrita* facilitates entry of drug in eyeball through corneal surface since corneal epithelium is also permeable to lipid soluble substances and lipid soluble substances cross corneal epithelium irrespective of their molecular size. Moreover, *Ghrita* preparation used in *Tarpana* is in the form of suspension containing different particles of the drugs and the particles do not leave the eye as quick as solution. Tissue contact time and bio availability is more hence therapeutic concentration can be achieved. The *Prana vayu*, *Alochaka* *pitta* and *Tarpaka* *kapha* are responsible for normal vision.

*Gharshan*, *Updeh*, *Rukshata*, *Kunita*, *Daruna*, *Krichhounmilana*, *aavil Drshana* are the main symptoms of *Shushkakshipaka* due to vitiation of *Vata* and *Pitta* *Doshas*. The *Go-ghrita* is considered as one of the best drugs for pacification of *Vata* and *Pitta* *Doshas*. So according to this principle, the symptoms of *Shushkakshipaka* Disease due to derangement of *Doshas* may be subsiding after *Tarpana* karma.

*Shushkakshipaka* is a clinical condition in which ocular surface becomes dry, condition may occur due to insufficiency of tear film secretion as a result cornea becomes dry as well as ocular surface dry also. The *Yashtimadhu-siddha Ghrita* used as *Tarpana* may have its action at the level of cornea and all the ocular surface. The fat soluble contents of the drugs get absorbed through trans-corneal route may have action on the refractive media of the eye and eye as a whole. So, it is supposed that after getting absorbed from ocular surface fatty acids enters in Aqueous Chamber and nourishes intraocular contents. The absorbed contents of *Go-ghrita* help in restoring the power of Meibomian gland to secrete oils by which evaporation of tear decreases and hence symptoms of *Shushkakshipaka* subside and *improvent* has taken place. The mode of action of *Tarpana Karma* can be explained as follows – Probably *Tarpana Karma* nourishes the *Tarpaka Kapha*, which is situated in the *Shira* (Brain). So indirectly *Tarpana Karma* is potentiating the action of higher centres of the different sense organ including eyes, located in the *Shira* (Brain).

The main reason or the aim for the selection of the present topic was, *Shushkakshipaka* is one of the challenging diseases for the physicians due to its painful complications. The Ayurvedic approach to the treatment is the need of hour as no system is



successful in providing the complete cure to this disease, so, *Shushkakshipaka* is a challenging and a burning problem of our society and medical science. According to the nature of disease it is essential to work on such therapy which has Vata and *Pittahara* properties.

In group –A, *Yashtimadhu-siddha Ghrita* has been selected because *Yashtimadhu-siddha Ghrita* has Vata *Pittahara* properties.

In group –B, *Go-Ghrita* has been selected because *Ghrita* has used traditionally and very effective and it has *vatapittahara* properties will help to disrupt the *Samprapti vighatana* of *Shushkakshipaka*, From the above discussion, it can be concluded that both *Yashtimadhusiddha-Ghrita* and *Go-Ghrita* together provided more results on symptoms of *Shushkakshipaka*.

## CONCLUSION

The clinical study reveals that use of Netra–tarpan with *Yashtimadhu-siddha ghrit* in patient of *shushkakshipaka* helps to cure dryness also improves the health status of eyes. The discussion on ocular and non-ocular symptoms of *shushkakshipaka* helps in the perspectives of Ayurveda is clearly suggestive of *vata* dominating *pittaja* vitiation in eye and body as a whole. These pathological factors give rise to *vata-pittaja* ocular surface symptoms like *vataja*, *pittaja*, *Raktaja abhishyanda*, as well as *shushkakshipaka* (dry eye syndrome). The generalized or physical symptoms of *shushkakshipaka* are also in the manifestations of *vata* and *pitta*. As per the given fundamentals regarding naming an unknown disease, *shushkakshipaka* may be coined as *Sanganak Atiyoga-Janya Netra Samlakshana*.

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