

ANALYSIS OF EFFICACY OF YASHTIMADU SIDDHA GHRITA AKSHITARPANA IN THE MANAGEMENT OF SHUSHKAKSHIPAKA WRT DRY EYE

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ABSTRACT

Ayurveda is a well-developed medical science. *Shalakya 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 *Shalakya* 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. *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 *Shalakya* of Ayurveda. Tarpana karma has been indicated in several eye diseases by various Acharya's but the main emphasis has been given on *Shushkakshipaka*. Hence, here *Shushkakshipaka* selected for present study to assess the efficacy of *Yashtimadhu-siddha Ghrita* (Tarpana).

Key Words: *Shalakya Tantra*, *Shushkakshipaka*, *Chakshushya*, *Yashtimadhu siddha Ghrita*

INTRODUCTION

In *Vimana Sthana*, Acharya Charaka has mentioned that there are several types and method of examination. It is absolutely essential to select the method which one is easy, possible and most suitable practically in all respects with least flows. For that Charaka has advised *Dashavidha Pariksha* i.e. *Kaarana*, *Karan* etc. Planning for research should be based on these guidelines.

Out of this Karan or medicine is most important for clinical trial. Research is a process of finding out the old hidden facts from the old theories and concepts as well as discovery of new facts. The aim of Ayurveda is “To maintain the health in the healthy and the treating of disorders in the ailing”. This supports the fact that any research taking place in the field of Ayurveda must be having its impact or role in the clinical field. It is the most important part of research work dealing with any disease and effect of therapy on the disease. Repeated practical observations were mentioned as an essential quality of ‘Vaidya’ by ‘Acharya Charaka’. So, we can say that importance of clinical work was known to the Acharyas from the very beginning. In modern era, it is essential to prove efficacy of any new drug or combinations through clinical trials on patients. Data collected through clinical trial and its observations can prove the efficacy of trial drug and its true assessments.

The disease *Shushkakshipaka* is included in the Sarvagata Netra Roga which means that it can affect all parts of the eye if not managed properly. Acharya Sushruta has described this disease as Vata dominating presentation whereas other sages have described it to be a *Vaata-Pittaja*, or *Vaata-Raktaja* disease. This discrepancy in *Doshic* attribution reflects that probably Acharya's have described different stages of the same disease or dissimilar presentation and unstable manifestation of the same pathology. The descriptions of Acharya Sushruta draw attention to the early stage, while the explanation given by Acharya *Vagbhata*.

AIMS AND OBJECTIVES

- To evaluate the efficacy of *Yashtimadhu-siddha Ghrita akshitarpana* as Shamana drug in *Shushkakshipaka*.
- To evaluate the efficacy of *Go-ghrita akshitarpan* as Shamana drug in *Shushkakshipaka*.
- To compare the efficacy of *Yashtimadhu-siddha ghrita* and *Go-ghrita*.
- To assess any side effects during the course of treatment.

MATERIALS AND METHODS

A.) Selection of the patient: -

Total 40 patients fulfilled criteria for diagnosis of the disease *Shushkakshipaka* has been selected from the *Shalaky* tantra O.P.D. and I.P.D. of G.A.C.H, Patna.

Sampling Technique:

A total number of 40 patients with signs and symptoms of *Shushkakshipaka* were registered and randomly divided into two groups viz.

Group A: *Yashtimadhu- siddha Ghrita* (Tarpana) -20 patients

Group B: *Go- Ghrita* (Tarpana) -20 patients

The patients were selected irrespective of their sex, religion, occupation, education etc.

Inclusion Criteria: -

- Age-25-60 years,
- Patient of either sex,

- Patient presenting with the classical features of *Shushkakshipaka* as well as symptoms suggestive of Dry Eye Syndrome.

Exclusion Criteria: -

- Age less than 25 years and more than 60 years.
- Pregnancy.
- Patient having symptoms of perforated corneal ulcer, uveitis, glaucoma.
- Inflammatory conditions like Acute Conjunctivitis.
- Systemic / metabolic disease, causing Dry Eye Syndrome.
- Patient with impaired eyelid function.
- Patient with ocular surgery prior to three months of study.

(B) Criteria for Diagnosis: -

The patients were diagnosed for *Shushkakshipaka* on the basis of the signs and symptoms mentioned in different Ayurvedic classics. However, in addition criteria laid down for dry eye which are as follows: -

1. *Gharshan* (Foreign Body Sensation)
2. *Updeh* (Sticking of Eye)
3. *Rukshta* (Dryness)
4. *Kunita* (Shrunken)
5. *Daruna* (Hardness)
6. *Krichhounmilana* (Difficulty in opening & Closing of Eye)
7. *Toda* (Stinging Pain)
8. *Aavil Darshana* (Blurring of Vision) and Associated Complaints like *Netrasrava* (Watering Eye), *Netradah* (Burning Sensation) and others if,

Consent of the Patients: -

All Patients selected for trial were explained the nature of the study and their written consent was obtained on the consent form attached with the proforma, before the commencement of the clinical trial.

Preparation of the trial drugs: -

Fresh raw Materials of *Yashtimadhu* (Root) and *Go-Ghrita* was collected from the Pharmacy of *Rasashastra*. Then Root of *yashtimadhu* were dried and made *churna* in *Rasashastra* Pharmacy of G.A.C.H. Patna, after that Both drugs were prepared in the Pharmacy of *Rasashastra* under the observation of teachers.

Treatment protocol: -

In all 40 patients who were diagnosed for *Shushkakshipaka* were include in the present clinical study and were randomly divided in two groups.

Table No.-4

Group	Drugs	Dose	Duration
A	<i>Yashtimadhu-Siddha ghrita</i>	30gm/day/pt.	60 days
B	<i>Go-Ghrita</i>	30 gm/day/pt.	60 days
Follow Up	15 days		

CRITERIA OF ASSESSMENT:

All the patients were examined of each 15 days during the treatment. Criteria of assessment was kept on the basis of relief in the signs and symptoms of the disease *Shushkakshipaka*. For this purpose, cardinal signs and symptoms were given Grading and scoring system was adopted for assessing each clinical feature before the commencement of trial and after the completion of trial.

Details of scores adopted of the main signs and symptoms in this study were as follows:

SCORING PATTERN:**A) GHARSHAN (FOREIGN BODY SENSATION)**

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

B) UPDEH (STICKING OF EYE)

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

C) RUKSHATA (DRYNESS): -

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

D) KUNITA (SHRUNKEN): -

- No sign- 0
- Mild- 1
- Moderate 2

- HIGH- 3

E) **DARUNA** (HARDNESS): -

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

F) **KRICHHOUNMILANA** (DIFFICULTY IN OPENING & CLOSING OF EYE)

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

G) **TODA** (STINGING PAIN) :-

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

H) **AAVIL DARSHANA** (BLURRING OF VISSION):-

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3 And associated symptoms are as: -

I) **Netrasrava** (WATERING EYE):-

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3

J) **NETRADAHA** (BURNING SENSATION): -

- No sign- 0
- Mild- 1
- Moderate 2
- HIGH- 3 Etc.

CRITERIA FOR THE ASSESSMENT OF TOTAL EFFECT OF THE THERAPY

Criteria of assessment has been under Grading of main heading subjective and objective parameter.

1.) Subjective: It has been decided on the basis of intensity, severity, distribution and heaviness. It has adopted for assessing each clinical feature such as *Rukshata*, *Kunita*, *Darunta* etc. before and after the completion of trial.

2.Objective:

- *Lusture* of conjunctiva
- *Lusture* of cornea
- Lid *margin* appearance
- Schirmers Test strip *weting* measurement
- Rose Bengal staining corneal surface area
- TBUT *Measurment*

OVERALL ASSESSMENT OF THERAPY:

- Complete remission: 100% Relief
- Marked improvement: $\geq 75\%$ Relief
- Moderate Improvement: $\geq 50\%$ to $<75\%$ Relief
- Mild Improvement: $\geq 25\%$ to $<50\%$ Relief
- Unchanged: $< 25\%$ Relief

CLINICAL STUDY

The third section deals with the clinical study which contains descriptions of selection of patients and methods adopted for diagnosis, management of *Shushkakshipaka* as assessment of outcome. It follows the description of vital data of all the patients. Then results obtained in the study have been presented along with their statistical analysis according to the groups of treatment.

OBSERVATION AND RESULTS

In the present study it was observed that maximum number of patients were in the 31-40 years of the age group. In this study it seems that Males are more prone to these diseases 58.83% were Males followed by female i.e. 41.12 %. Maximum number of patients i.e 58.82 % were from Middle class followed by Rich class i.e. 32.35 % and 8.82 % were from Poor class. Maximum number of patients i.e. 47.06 % were undergraduate followed by 32.35% patients Graduate and only 20.59 % patients were Uneducated. 64.70 % patients were from Rural area and the rest 35.30 % were Urban area. Maximum number of patients i.e. 67.65 % were taking vegetarian diet while 32.35 % were taking mixed type of diet. Maximum percentage of patients i.e. 61.77% were reported Regular dietary habit and 38.23 % were having Irregular diet. Maximum number of patients had Madhyama *Abhyaharana* Sakti i.e. 64.70 % and Madhyama *Jarana sakti* i.e. 70.58%, followed by Avara *Abhyaharana sakti* i.e. 26.48 % and Avara *Jarana*

sakti i.e. 26.48 % and only 8.82 % were having Pravara *Abhyaharana sakti* and 2.94% *Jarana sakti*. Maximum number of patients i.e. 67.65 % were found *krura kostha*, followed by 23.52 % patients were found with *Madhyama kostha*, whereas 8.83 % patients were found with *Mrdu kostha*. 61.77% of patients reported to have sound sleep and 38.23% have disturbed sleep

EFFECT OF YASHTIMADHUSIDDHA-GHRITA (GROUP-A):

In the symptoms drugs of group A (*yashtimadhu-siddha ghrita*) Provided statistically highly significant relief in the symptoms like *Gharshan*, *Updeh*, *rukshata*, *daruna*, *Kunita*, *Krichhounmilina*, *toda*, *Aavil Darshan*.

EFFECT OF GO-GHRITA(GROUP-B):

In symptoms drugs of group B (*Go-ghrita*) Provided statistically highly significant relief in *Gharshan*, *Updeh*, *rukshata*, *daruna*, *Kunita*, *Krichhounmilina*, *toda*, *Aavil Darshan*

OVERALL EFFECT OF THERAPIES

The present study shows that none of the patients in *Yashtimadhu-siddha Ghrita* Group were cured completely, but markedly improved 31.25%, Moderate improved 56.25% and Minor improved 12.50% was observed in 16 patients and unchanged was observed in 00 patients.

The present study shows that none of the patients in *Go-Ghrita* Group were cured completely, but markedly improved 27.77%, Moderate improved 50.00% and Minor improved 22.22% was observed in 18 patients and unchanged was observed in 00 patients.

An apparent difference of improvement in all the Cardinal symptoms are observed in this respect treatment schedule of Group A is proved to be better than test drug of Group B in some extent and vice-versa. Statistically significant differences are found in Both Groups, so from the obtained data it may be observed that the treatment schedule of group A is more effective than test drug of group B.

On comparing the effect of therapy, it can be concluded that in some extent Group B is more effective than Group A, similarly in some extent Group A is more effective than Group B.

DISCUSSION

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 (*Nigamana*) from the findings and results. To correlate the findings with the results, discussion (*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.

Apart from these, a brief preface to the subject is given in the beginning of the thesis, comprising the rationality behind the selection of the drug and the disease, aims and objects with plan of study. The first section designated as literary review deals with The Literary review of the disease consists of both Ayurvedic and Modern description of *Shushkakshipaka*. On the outset an account of definition of *Shushkakshipaka*, historical background, Nidana dealing with

various aspects, *Samprapti* and its *Ghataka*, *Purvarupa*, *Rupa*, *Upadrava*, *Sadhyasadyata*, and *Pathyapathya* have been discussed. *Shushkakshipaka* has been correlated with Dry eye, it has been described in terms of Definition, Epidemiology, aetiology, and pathogenesis, Clinical manifestation, Diagnosis, Investigations, Prognosis and Treatment. The drug review at the outset discusses the reasoning behind selection of the drugs under trial. Thereafter the pharmacodynamics of each individual drug are given.

The second section deals with the pharmaceuticals study of the drug *Yashtimadhu-siddha Ghrita* and *Go-ghrita* along with its macroscopic and microscopic description, phytochemical analysis.

The third section deals with the clinical study. It contains the detailed description of the selection of the patients and methods adopted for the present research work. The results and their statistical analysis are presented in the tabular form along with short description and in fourth part; discussion comprises the logical interpretation of the results obtained in the study.

CONCLUSION

Yashtimadhu-siddha ghrita Tarpana was more effective in relieving the different ocular features of *shushkakshipaka*. Changing the working style and standard alone was least effective in relieving the *shushkakshipaka*. During the course of study, no significant adverse effects were observed. To sum up, it can be concluded that *shushkakshipaka* is *vata* – Pitta vitiation pathology and needs to be managed by lubricating (*snigdha*) measures locally. It is hoped that the observations made in this work will be helpful for future studies and to the mankind as a whole. All the subtypes of *Vata* are involved either earlier or in the later stages of *Shushkakshipaka*. All the *Nidanas* of *Shushkakshipaka* ultimately results in *Vataprakopa* initiating further pathogenesis. From this study, it is concluded that non-compliance of code of healthy diet, selection and eating plays a major role in causation of disease. Hence, we can say that code and conduct of healthy eating must be followed to achieve early and better results of the disease.

Shushkakshipaka is the disease having *Vata* and *pitta* predominance. But, in fact it is *Tridoshika*. Statistically significant differences are found in all the Groups. On comparing the effect of therapy, it can be concluded that Group A (*yashtimadhu-siddha ghrita*) is more effective than group B. This study is focused on the role of both drugs *yashtimadhu-siddha ghrita* & *Go-Ghrita*. The trial drugs have given promising results by showing improvement in sign and symptoms of *Shushkakshipaka*. It is very encouraging and further research on these drugs must be carry on so that their efficacy could be evaluated and assessed more widely and scientifically in favour of human being, those suffering from *Shushkakshipaka* because this work has been completed within limited time and facilities.

ACKNOWLEDGEMENT

This study has been shown interesting results it is recommended that the study should be carried out in large number of patients to evaluate and analyse the results. Being a chronic degenerative nature of disease follow up should be kept for longer duration. The study should be carried out for longer duration for better results.

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