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A CLINICAL STUDY ON THE EFFECT OF GHRITKUMARYADI ASCHYOTAN (DROPS) IN THE MANAGEMENT OF SHUSHKAKSHIPAKA W.S.R. TO DRY EYE SYNDROME

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ABSTRACT
Shushkakshipaka is classified as a *Sarvagata Netra Roga*[1], the disease affecting all parts of the eye. It is *Vataja* disease according to *Acharya Sushruta*[2], *Vata-Pittaja* vitiated condition by *Acharya Vagbhatta.*[3] Dry Eye is a multifactorial disease of the ocular surface characterized by a loss of homeostasis of tear film and accompanied by ocular symptoms, in which tear film instability and hyperosmolarity, ocular surface inflammation and damage and neurosensory abnormalities play etiological roles.[4] The present study is done under two groups (Gr.I Control Group and Gr.II Study Group) of 20 patients of *Shushkakshipaka*. Patients were treated in Gr. I with *Ghritkumaryadi Aschyotan* (drops) and in Gr. II with *Ghritkumaryadi Aschyotan* (drops) with glycerin. Total effect of drug was evaluated on the basis of signs, symptoms and clinical tests after completion of the trial. The data obtained in clinical study before and after trial revealed Gr.II(Study Group) shows better results than Gr.I(Control Group) over total criteria of assessment.

KEYWORDS: *Shushkakshipaka, Sarvagata Netra Roga, Ghrikumaryadi Aschyotan*(drops).

INTRODUCTION
Shushkakshipaka is a disease affecting all parts of the eye characterized by *Paka* (inflammation) of the *akshi* due to *Sushkata*(dryness) caused by altered coherence of *Ashru* with ocular surface or lack of *Ashru*. *Shushkakshipaka* can be correlated with Ocular surface disease i.e. Dry Eye Syndrome(DES) in modern ophthalmology. DES is a chronic ocular pathology with common ocular symptoms such as feeling of dryness, grittiness, burning, stingy discharge, transient blurring of vision, redness, crusting.[5] Patients with DES experience difficulties in daily routine activities thus compromising their quality of life. The prevalence of DES in India is higher than the global prevalence and ranges from 18.4% to 54.3%.[6]

Shalakya Tantra holds a prime position among the eight specialities of *Ayurveda (Ashtanga Ayurveda*) and deals with the precious sense organs, the disease affecting them and their management.[7] *Acharya Sushruta* explained the Ophthalmology and Otorhino-laryngiology in a systemic manner in *Uttartantra* portion of his treatise *Sushruta Samhita*. *Shushkakshipaka* is characterized by *Kunita vartama*(Photo-phobia induced narrowing of palpebral aperture), *Darun ruksha vartama*(Crusting of lids),*Vilokaneaavila darshanam*(Blurred vision*)*, *Sudarunam-yata pratibodhan*(Stuck eyelids)[8], *Gharsha*(Foreign body sensation), *Toda(*Pricking pain), *Updeha*(Mucoid discharge), *Vishushkatva*(Dryness), Shula(Severe pain), *Paka*(inflammation*)*, *Daha*(Burning sensation).[9]

This present study includes detailed study of the disease, its nature and course and to evaluate the effect of *Ayurvedic* drug on chronicity of the disease. Therefore keeping in view the need of time and gravity of the disease, present study was undertaken with the topic entitled "**A Clinical Study on the Effect of *Ghritkumaryadi Aschyotan*(drops) in the Management of *Shushkakshipaka* w.s.r. to Dry Eye Syndrome."**

AIMS AND OBJECTIVES
i. To study conceptual resemblance between *Shushkakshipaka* and Dry Eye Syndrome (DES).
ii. To evaluate the effect of *Aschyotan Kriya Kalpa* with *Ghritkumaryadi Aschyotan*(drops) on DES.

iii. To study the side effect of the drug, if any.
iv. To provide economic, safe and effective treatment.

MATERIALS AND METHODS

Study Design: Open random comparative study.

Selection of Patients

The patients presenting with clinical features of *Shushkakshipaka*/ DES were selected from *Shalakya Tantra* (Eye) O.P.D. of hospital affiliated to R.G.G.P.G. *Ayu*. College, Paprola (H.P.); irrespective of their sex, religion, occupation, education etc. A total of 20 of patients were registered. Informed consent was taken from all.

Inclusion Criteria

i. Patients willing for trial.
ii. Patients presenting with signs and symptoms of *Shushkakshipaka/* DES will be taken into account irrespective of sex, caste and religion.
iii. Age group above 20 years.

Exclusion Criteria:

i. Patients not willing for trial.
ii. Patients suffering from dry eye associated with other ocular disease (e.g. Squamous blepharitis, corneal ulcer, lagophthalmos, dacrocystitis, uveitis, any stage of glaucoma, allergic conjuctivitis) or systemic diseases.

Investigational Criteria

Investigations were carried out in order to rule out any systemic disease- Complete blood picture (Hb gm%, TLC, DLC, ESR, FBS), Urine examination etc.

Sampling Technique

The selected patients were randomly divided into two groups:

Group I Control Group

In this group 10 patients were kept.

Group II Study Group

In this group 10 patients were kept.

Plan of Study

Clinical study was accomplished in three phases:

i. Diagnostic Phase
ii. Interventional Phase
iii. Assessment Phase

Diagnostic Phase

The diagnosis of selected patients was confirmed on the basis of positive signs (Conjunctival congestion, Mucin strands in tear film, marginal tear meniscus etc.) found during elaborative examination and specific clinical tests (Schirmer-1, TBUT and Ocular surface staining) of DES.

A special research proforma was prepared comprising of *Ayurvedic* and Modern parameters essential for diagnosis and assessment of Disease.

Interventional Phase

The study was intervened by treatment as follows:
Group I - *Ghritkumaryadi Aschyotan* (drops) only.
Group II - *Ghritkumaryadi Aschyotan* (drops) with glycerin.

Duration of Trial- 30 days
Dose – 1-2 drops 4-6 times a day.
Follow up – Follow ups were done on 3rd day, 7th day, 14th day, 21st day, 28th day of trial.
And after 15 days of completion of trial for any complications and adverse effect of drug.

Assessment Phase

Clinical Assessment Criteria

The clinical trial was assessed for its efficacy on the basis of following subjective and objective criteria:-

Subjective Criteria

1. Foreign body sensation (*Gharsha)*
0 - No foreign body sensation
1 - Occasional foreign body sensation
2 - Frequent foreign body sensation
3 - Continuous foreign body sensation.

2. Burning (*Ushadaha*)
0 - No burning sensation
1 - Mild burning sensation
2 - Moderate burning sensation
3 - Severe burning sensation

3. Mucoid discharges (*Updeha*)
0 - No mucoid discharge
1 - Discharge not requiring mopping
2 - Discharges requiring intermittent mopping
3 - Discharges causing sticking of eyelashes

4. Blurring of vision (*Aavila-darshana*)
0 - No blurring
1 - Occasional blurring
2 - Frequent blurring
3 - Continuous blurring

5. Dryness (*Vishushkatva*)
0 - No feeling of dryness
1 - Occasional feeling of dryness
2 - Frequent feeling of dryness
3 - Continuous feeling of dryness

6. Pain (*Toda/Bheda/Shula*)
0 - No pain
1 - Not Continuous
2 - Continuous but not incapacitating normal routine activity
3 - Continuous throughout and incapacitating normal routine activity

7. Photophobia (*Kunita-vartma*)
0 - No photophobia
1 - Photophobia only during exposure to sunlight.

2 - Frequent photophobia
3 - Continuous photophobia

8. Itching (*Kandu*)
0 - No itching
1 - Occasional itching
2 - Frequent itching
3 - Continuous itching

9. Redness (*Raga)*
0 - No redness
1 - Hyperaemia of exposed conjunctiva at nasal and temporal corners
2 - Diffuse hyperaemia of palpebral conjunctiva
3 - Diffuse palpebral and bulbar hyperaemia

10. Crusting (*Daruna-ruksha vartma*)
0 - No crusting of lids
1 - Mild Crusting
2 - Moderate Crusting with inflammation
3 - Crusting with inflammation

11. Eyelids stuck (*Kricchronmeela-neemeelnam*)
0 - No stucked eyelids
1 - Eyelids stuck on waking up occasionally
2 - Eyelids stuck on frequently
3 - Stickiness with difficulty to open the eye.

Objective Signs
1. Debris/Mucin strands in tear film
0 - Absence of mucin debris and strands in the tear film
1 - Spotting of mucin debris and strands in the tear film on slit-lamp bimicroscopy
2 - Spotting of mucin debris/strands in the tear film in diffuse illumination (torch light examination)
3 - Numerous spotting on naked eye

2. Conjunctival congestion
0 - No congestion
1 - Mild congestion (Congestion with clear pattern of blood vessels)
2 - Moderate congestion (Congestion with poorly visible pattern of blood vessels)
3 - Severe congestion (Congestion completely obscuring the pattern of blood vessels)

3. Marginal tear meniscus
0 - Convex tear meniscus, height ~ 0.2 -0.4 mm height
1 - 0.2-0.3 mm height
2 - Concave tear meniscus, height 0.1-0.2 mm height
3 - Absent marginal tear strip

Objective clinical tests
1. Schirmer- I test
0 - Schirmer strip wetting of >15mm in 5 minutes
1 - Schirmer strip wetting between 11-15 mm in 5 minutes
2 - Schirmer strip wetting between 6-10 mm in 5 minutes
3 - Schirmer strip wetting of < 5 mm in 5 minutes

2. Tear Film Break Up Time
0 - The appearance of dry spot after 15 seconds
1 - The appearance of dry spot between 11-15sceonds
2 - The appearance of dry spot between 6-10 seconds
3 - The appearance of dry spot within 5 seconds

3. Fluorescein Staining
0 - Staining Absent
1 - Staining <1/3 corneal epithelium
2 - Staining 1/2 corneal epithelium
3 - Staining >1/2 corneal epithelium

Overall Effect of Therapy
The assessment was done by adopting the following scoring pattern:-

- **Cured:** 100 % relief in signs and symptoms.
- **Marked improvement:** 75% to 99% improvement in signs and symptoms was recorded as marked improvement.
- **Moderate improvement:** 50% to 74% improvement in signs and symptoms was considered as moderate improvement.
- **Mild improvement:** 25% to 49% improvement in signs and symptoms was considered as mild improvement.
- **Unchanged:** < 25% reduction in signs and symptoms was noted as unchanged.

DRUG REVIEW
Ingredients of *Ghrikumaryadi Aschyotan*(drops)
For Control Group

Drug	Botanical Name	Family	Part Used	Proportion
Ghritkumari	*Aloevera* (Linn.)Burm f.	Liliaceae	*Patra majja*(Leaves Pulp)	10%
Madhu	Honey			3%
Distilled water				Q.S.

For Study Group

Drug	Botanical Name	Family	Part Used	Proportion
Ghritkumari	*Aloevera* (Linn.)Burm f.	Liliaceae	*Patra majja*(Leaves Pulp)	10%
Madhu	Honey			3%
Glycerin				2%
Distilled water				Q.S.

References of *Ghritkumari* and *Madhu* being useful for curing eye diseases is available in various *Ayurvedic* texts.
Ghritkumari(Bh.P. Ni Guduchi.Vr[10]*, Kai.Ni. Aush.Vr*[11]*)*
Madhu (*Bh.P.Ni. MadhuVr*[12]*, Kai.Ni.Aush.*[13]*, Su.S.Su*[14]*)*

Preparation of Eye Drops
As facility for the sterile manufacturing & packing of the eye drops is not available at Institue's pharmacy, preparation of the eye drops was done at Sricure Herbs India Pvt. Ltd. Panchkula, Haryana a GMP certified company, following full guidelines of the modern as well as *Ayurvedic* Formulary of India (AFI). The drug is sponsored by the Search Orbis Pharmaceutical Mohali Punjab, without any financial benefit for the upliftment of *Ayurveda* to match the recent advancements and trends.

Statistical Analysis
The scoring of criteria of assessment was analysed statistically in terms of mean values of B.T. (Before Treatment), A.T. (After treatment), S.D.(Standard Deviation), and S.E.(Standard Error). The effect of therapy in the group was assessed by applying students paired t' test for comparing the before treatment and after treatment scores of assessment criteria. The results obtained were considered highly significant for $p < 0.001$, significant for $p < 0.05$ and insignificant for $p > 0.05$. For intergroup comparison unpaired t test was applied.

OBSERVATIONS
Maximum number of patients were of age group 41-60 years (65%),were females(55%), married (80%), Hindu (100%), residents of rural area(80%), matriculated (30%), belonged to middle class (65%), housewives (45%), were taking vegetarian diet (65%) *Vata-Pittaj prakriti*(60%),were consuming veg. diet (75%), addiction to tea, coffee was present in 45% and spent more than 2 hours in front of V.D.U (45%).Symtoms of DES were found in decreasing order of percentage as: FBS and Itching (95%), Dryness (75%), Redness and Burning sensation(70%), Transient blurring of vision (60%), Mucoid Discharge(55%), Pain(50%) and Crusting, Eyelid Stuck (30%). In Objective Findings maximum number of patients were having Conjuctival Congestion(70%) followed by abnormal tear meniscus(55%), Mucin Strands/debris in tear film(40%).Clinical tests showed Schirmer -1 test positive in (100%) patients, T-BUT abnormality in (95%).

Effect of Therapy
1. Effect on Foreign Body Sensation
In Group A: The initial mean score of Foreign body sensation was 1.40 which reduced to 0.10 after treatment. The study shows that percentage relief in foreign body sensation was 92.85%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).
In Group B: The initial mean score of FBS was 1.20 which reduced to 0.00 after treatment. The study shows that percentage relief in foreign body sensation was 100%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).
Group A vs Group B: Statistically both the group showed highly significant relief and there was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 7.15% more relief than group A**.**

2. Effect on Burning sensation
In Group A: The mean score was 0.60 which became 0.10 after the treatment. The Relief in burning sensation was 83.33 %. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).
In Group B: The initial mean score was 1.10 which reduced to 0.10 after treatment. The study shows that percentage relief in foreign body sensation was 90.90%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).
Group A vs Group B: Statistically both the group showed highly significant relief and there was statistically significant difference between BT and AT scoring of two groups (<0.05). Though Group B showed 6.67% more relief than group A.

3. Effect on Mucous discharge
In Group A: The mean score before treatment was 0.50 and it reduces to 0.10 after treatment. Relief in mucous discharge was 80%. Statistical analysis revealed that the improvement was statistically significant ($p<0.05$).
In Group B: The initial mean score was 0.70 which reduced to 0.10 after treatment. The study shows that percentage relief in mucous discharge was 85.71%. Statistical analysis revealed that the improvement was statistically significant ($p < 0.05$).
Group A vs Group B: Statistically both the group showed significant relief and there was statistically significant difference between BT and AT scoring of two groups (<0.05). Though Group B showed 5.71% more relief than group A.

4. Effect on Transient blurring
In Group A: The initial mean score was 0.60 which reduced to 0.10 after the treatment. Relief in transient blurring was 83.34%. Statistical analysis revealed that the improvement was statistically significant ($p<0.05$).
In Group B: The initial mean score was 0.80 which reduced to 0.10 after treatment. The study shows that percentage relief in transient blurring was 87.50%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).
Group A vs Group B: Statistically Group A showed significant relief and Group B highly significant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 4.16% more relief than group A.

5. Effect on Dryness

In Group A: The mean score was 0.70 before treatment became 0.10 after treatment. Relief in dryness was 85.71%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).

In Group B: The initial mean score was 1.10 which reduced to 0.10 after treatment. The study shows that percentage relief in dryness was 90.90%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).

Group A vs Group B: Statistically both the group showed highly significant relief and there was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 5.19% more relief than group A.

6. Effect on Pain

In Group A: The mean score was 0.50 which reduced to 0.10 after the treatment. Relief in transient blurring was 80%. Statistical analysis revealed that the improvement was statistically significant ($p < 0.05$).

In Group B: The initial mean score was 0.70 which reduced to 0.10 after treatment. The study shows that percentage relief in pain was 85.72%. Statistical analysis revealed that the improvement was statistically significant ($p < 0.05$).

Group A vs Group B: Statistically both the group showed significant relief and there was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 5.72% more relief than group A.

7. Effect on Photophobia

In Group A: The mean score of 0.50 before treatment became 0.20 after treatment. Relief in photophobia was 60.01%. Statistical analysis revealed that the improvement was statistically significant ($p<0.05$).

In Group B: The initial mean score was 0.40 which reduced to 0.10 after treatment. The study shows that percentage relief in pain was 75%. Statistical analysis revealed that the improvement was statistically insignificant ($p > 0.05$).

Group A vs Group B: Statistically Group A showed significant relief and Group B insignificant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 14.92% more relief than group A.

8. Effect on Itching

In Group A: The initial mean score of itching was 1.20 which reduced to 0.10 after treatment. The study shows that percentage relief in foreign body sensation was 91.60%. Statistical analysis revealed that the improvement was highly significant ($p < 0.01$).

In Group B: The initial mean score was 1.20 which reduced to 0.00 after treatment. The study shows that percentage relief in pain was 100%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).

Group A vs Group B: Statistically both the group showed highly significant relief and there was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 8.40% more relief than group A.

9. Effect on Redness

In Group A: The mean score of 0.60 before treatment became 0.20 after treatment. Relief in redness was 66.67%. Statistical analysis revealed that the improvement was statistically significant ($p<0.05$).

In Group B: The initial mean score was 0.90 which reduced to 0.20 after treatment. The study shows that percentage relief in pain was 77.78%. Statistical analysis revealed that the improvement was highly significant ($p < 0.001$).

Group A vs Group B: Statistically Group A showed significant relief and Group B with highly significant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 11.11% more relief than group A.

10. Effect on Crusting

In Group A: The mean score was 0.50 which reduced to 0.20 after the treatment. Improvement in crusting was 60%. Statistical analysis revealed that the improvement was insignificant statistically ($p>0.05$).

In Group B: The initial mean score was 0.40 which reduced to 0.10 after treatment. The study shows that percentage relief in pain was 75%. Statistical analysis revealed that the improvement was statistically significant ($p < 0.05$).

Group A vs Group B: Statistically Group A showed insignificant relief and Group B with highly significant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 15% more relief than group A.

11. Effect on Eyelid stuck

In Group A: The mean score of 0.30 before treatment became 0.10 after treatment. Relief in the symptom was 66.67%. Statistical analysis revealed that the improvement was insignificant statistically ($p>0.05$).

In Group B: The initial mean score was 0.30 which reduced to 0.10 after treatment. The study shows that percentage relief in pain was 66.67%. Statistical analysis revealed that the improvement was statistically insignificant ($p > 0.05$).

Group A vs Group B: Statistically both the group showed insignificant relief and there was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 0% relief than group A.

12. Effect on tear meniscus

In Group A: The mean score of 0.90 before treatment became 0.70 after treatment. Effect on tear meniscus was 22.22%. Statistical analysis revealed that the improvement was insignificant statistically ($p>0.05$).

In Group B: The initial mean score was 0.80 which reduced to 0.40 after treatment. The study shows that percentage relief in pain was 50%. Statistical analysis revealed that the improvement was statistically significant (p <0.05).
Group A vs Group B: Statistically Group A showed insignificant relief and Group B with significant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 27.78% more relief than group A.

13. Effect on mucin strands
In Group A: The initial mean score of mucin strands was 0.40 which reduced to 0.10 after treatment. The study shows that percentage relief in foreign body sensation was 75%. Statistical analysis revealed that the improvement was insignificant statistically (p>0.05).
In Group B: The initial mean score was 0.50 which reduced to 0.10 after treatment. The study shows that percentage relief in pain was 80%. Statistical analysis revealed that the improvement was statistically significant (p <0.05).
Group A vs Group B: Statistically Group A showed insignificant relief and Group B with significant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 5% more relief than group A.

14. Effect on conjunctival congestion
In Group A- The mean score was 0.70 which reduced to 0.20 after the treatment. Relief in the symptom was 71.42%. Statistical analysis revealed that the improvement was highly significant (p <0.001).
In Group B: The initial mean score was 1.10 which reduced to 0.30 after treatment. The study shows that percentage relief in pain was 72.72%. Statistical analysis revealed that the improvement was statistically significant (p <0.05).
Group A vs Group B: Statistically Group A showed highly significant relief and Group B with significant relief. There was no statistically significant difference between BT and AT scoring of two groups (>0.05). Though Group B showed 1.3% more relief than group A.

15. Effect on schirmer-1
In Group A- The initial mean score of schirmer-1 was 1.90 which reduced to 1.60 after treatment. The study shows that percentage improvement was 15.70%. Statistical analysis revealed that the improvement was insignificant statistically (p>0.05).

In Group B: The initial mean score was 1.80 which reduced to 1.00 after treatment. The study shows that percentage relief in pain was 53.34%. Statistical analysis revealed that the improvement was statistically significant (p <0.05).
Group A vs Group B: Statistically Group A showed insignificant relief and Group B with significant relief. There was statistically significant difference between BT and AT scoring of two groups (<0.05). Though Group B showed 37.44% more relief than group A.

16. Effect on T-BUT
In Group A: The mean score of 1.20 before treatment became 1.00 after treatment. Effect on T-BUT was 16.67%. Statistical analysis revealed that the improvement was insignificant statistically (p>0.05).

In Group B: The initial mean score was 1.30 which reduced to 0.70 after treatment. The study shows that percentage relief in pain was 46.15%. Statistical analysis revealed that the improvement was statistically significant (p <0.05).

Group A vs Group B: Statistically Group A showed insignificant relief and Group B with significant relief. There was statistically significant difference between BT and AT scoring of two groups (<0.05). Though Group B showed 29.48% more relief than Group A.

DISCUSSION

Ghritkumaryadi Aschyotan was taken up for the trial. Drug chosen for the treatment are having properties which pacifies *Vata, Pitta Doshas*.Contents of Drug are *Ghritkumari* extract 10%, *Madhu* 3% and Glycerin 2%.

PROPERTIES OF *GHRITKUMARI*: *Ghritkumari* as stated by *Acharyas* in classical texts acts as *Rasayan* for *Netra, Vishvatnashak, Pittrakt Shamak* properties[15] and *Sheeta Veerya, Tikta* and *Madhur Rasa* pacifying the predominant *doshas* and the symptoms as blurred vision, burning sensation, redness, dryness of eyes, headache. *Rasayan*[16](i.e.antioxidant) properties of *Ghritkumari* helps in relieving the symptoms related to vision as it acts by providing strength to *Drishti*.

PROPERTIES OF *MADHU*: *Madhu* is also mentioned in classical texts as *Chakshushya, Vranshodhak, Ropak, Prasadak*[17], having *Tridoshshamak* properties and *Madhur Rasa ,Kashaya Anurasa, Laghu & Picchil Guna*[18] pacifying the predominant *doshas* and symptoms as redness, burning sensation and acts as eye tonic.

PROPERTIES OF GLYCERIN: Glycerin is used as a carrier for other medications as it does not make detrimental chemical interactions with other substances.It stays inert without changing the properties of whatever it is used with. It enhances the lubricant properties of lubricants for eyes and having capacity to absorb moisture and retaining it for a long. Also reduces evaporation.

CONCLUSION

1. DES appears to be similar disease entity to the *Shushkakshipaka.* The etymology aetiology, pathogenesis and clinical features of both correlate immensely.
2. The drug *Ghritkumaryadi Aschyotan*(drops) with glycerin gives relieve in various symptoms of Dry

Eye like Foreign body sensation, Burning Sensation, Dryness, Pain, Itching, Redness and Transient Blurring of vision.

3. *Ghritkumaryadi Aschyotan*(drops) with glycerin is effective in reliving subjective criteria of the disease and also has significant effect on objective clinical tests.
4. During the course of trial and after withdrawal no adverse effect were noted.

REFERENCES

1. Sushruta Samhita of Maharishi Sushruta: With commentary by Kaviraj Ambikadutta Shastri;Reprint Edition 2017, Chaukhambha Sanskrit Sansthan, Varanasi Uttar tantra- 6/4.
2. Sushruta Samhita of Maharishi Sushruta: With commentary by Kaviraj Ambikadutta Shastri;Reprint Edition 2017, Chaukhambha Sanskrit Sansthan, Varanasi Uttartantra – 1/30.
3. Astanga Hridaya of Vagbhatta: With Vidyotini Hindi commentary, by Kaviraja Atrideva Gupta Reprint Edition 2018, Chaukhambha Prakashan, Varanasi Uttar Sthana – 15/16.
4. Report of International Tear Film and Ocular Surface Society Dry Eye Workshop (DEWS 11) redefine dry eye in 2017.
5. Kanski: Clinical Ophthalmology A systemic approach by Jack J. Kanski. IXth edition (John F.Salmon) Chapter – 5/158.
6. www.ncbi.nlm.nih.govt.in.
7. Sushruta Samhita of Maharishi Sushruta: With commentary by Kaviraj Ambikadutta Shastri; Reprint Edition 2017, Chaukhambha Sanskrit Sansthan, Varanasi Sutra Sthana – 1/10.
8. Sushruta Samhita of Maharishi Sushruta: With commentary by Kaviraj Ambikadutta Shastri; Reprint Edition 2017, Chaukhambha Sanskrit Sansthan, Varanasi Uttartantra – 6/26.
9. Astanga Hridaya of Vagbhatta: With Vidyotini Hindi commentary, by Kaviraja Atrideva Gupta Reprint Edition 2018, Chaukhambha Prakashan, Varanasi – 15/16.
10. Bhava Prakash Nighantu of Shri Bhava Mishra: With commentary by Dr. K.C. Chunekar; Vth Edi. (1979), Chaukhamba Orientalia, Varanasi Guduchi Varg – 229-230.
11. Kaiyadeva Nighantu: By Prof. P.V. Sharma and Dr. Guru Prasad Sharma, Chaukhamba Orientalia, Varanasi First Edi. (1979) Aushadh Varg – 1640.
12. Bhava Prakash Nighantu of Shri Bhava Mishra: With commentary by Dr. K.C. Chunekar; Vth Edi. (1979), Chaukhamba Orientalia, Varanasi Madhu Varg – 2.
13. Kaiyadeva Nighantu: By Prof. P.V. Sharma and Dr. Guru Prasad Sharma, Chaukhamba Orientalia, Varanasi First Edi. (1979) Aushadh Varg – 175-178.
14. Sushruta Samhita of Maharishi Sushruta: With commentary by Kaviraj Ambikadutta Shastri;Reprint Edition 2017, Chaukhambha Sanskrit Sansthan, Varanasi Sutra Sthana – 45/132.
15. Kaiyadeva Nighantu: By Prof. P.V. Sharma and Dr. Guru Prasad Sharma, Chaukhamba Orientalia, Varanasi First Edi. (1979) Aushadh Varg – 1639-1640.
16. Bhava Prakash Nighantu of Shri Bhava Mishra: With commentary by Dr. K.C. Chunekar; Vth Edi. (1979), Chaukhamba Orientalia, Varanasi Guduchi Varg – 229.
17. Bhava Prakash Nighantu of Shri Bhava Mishra: With commentary by Dr. K.C. Chunekar; Vth Edi. (1979), Chaukhamba Orientalia, Varanasi Madhu Varg – 2.
18. Sushruta Samhita of Maharishi Sushruta: With commentary by Kaviraj Ambikadutta Shastri;Reprint Edition 2017, Chaukhambha Sanskrit Sansthan, Varanasi Sutra Sthana – 45/132.