

Effectiveness of Goghtit Padabhyanga (Foot Massage Using Cow Ghee) As an Add-On Therapy in the Management of Computer Vision Syndrome: A Clinical Study

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Abstract

Computer Vision Syndrome (CVS), a prevalent occupational health concern in the digital age, encompasses a range of visual and extra-visual symptoms resulting from prolonged exposure to digital screens. Conventional management includes ergonomic correction, artificial tears, and blue-light filters. However, complementary therapies like Padabhyanga, particularly those using Goghrit (medicated cow ghee), are gaining attention for their holistic benefits. This study explores the efficacy of GoghritPadabhyanga as an add-on therapy in managing CVS

Aim: To evaluate the effect of Goghritpadabhyanga in computer vision syndrome (CVS)

Materials and Methods: This was a randomized, open-label, controlled pilot study. A total of 30 patients were divided into two groups.

Group A- 15 patients of CVS were treated with Goghrit (cow's ghee) padabhyanga for 10 min for both legs once daily in the evening for 14 days as per classics.

Group B- 15 patients of CVS were treated with Goghrit (cow's ghee) aschyotan & Goghritpadabhyanga - once a daily in the evening - for 14 days as per classics

Results: Significant improvement was seen in sign and symptoms of CVS

Conclusion: Goghritpadabhyanga is effective in CVS

Keywords: Computer Vision Syndrome, Goghrit, Aschyotana, Padabhyanga

INTRODUCTION

The growing dependence on digital devices has significantly increased the prevalence of Computer Vision Syndrome, affecting nearly 60–90% of computer users worldwide. CVS is characterized by symptoms such as eye strain, dryness, blurred vision, headache, and neck/shoulder discomfort.

While modern treatments focus on symptomatic relief, Ayurvedic therapies offer a systemic approach to restore balance. Padabhyanga, a traditional foot massage using medicated oils or ghee, is known for its calming effect on the nervous system and improvement in ocular health through Marma stimulation and Vata pacification. In this context, GoghtitPadabhyanga (foot massage using medicated cow ghee) is hypothesized to enhance overall visual comfort and reduce digital eye strain (DES).

Materials and Methods

Material and Method – It was randomized open labelled controlled pilot study. Total 30 patients were divided into two groups .

Group A- 15 patients of CVS were treated with Goghrit (cow's ghee) padabhyanga - for 10 min for both legs - once a daily in the evening - for 14 days as per classics.

Goghrita Aschyotana 10 bindu = 5ml i.e 2.5 ml in each eye evening (5-6 pm) – for 14 days as per classics

Group B- 15 patients of CVS were treated with Goghrit (cow's ghee) aschyotan -once a daily in the evening - for 14 days as per classics

INCLUSION CRITERIA

Age between 18 -40 years of age and both genders with all socio – economics status

Patients irrespective of refractive error

Minimum three hours' exposure to any type of Video Display Terminals, such as desktop, laptop, or both, daily.

EXCLUSION CRITERIA

Patients having other systemic disease or metabolic disorders

Patients with any other ophthalmic pathological conditions and those using any other systemic or eye medications were excluded.

History of any surgical intervention to the eye, such as cataract, retinal, or LASIK surgery.

Persistent contact lens users Acute trauma to foot (severebruising , severe sprains and strains , fractures, lacerations, burns etc)

Abnormal skin conditions (weeping eczema, dermatitis, open wounds and sores , inflammatory skin conditions, fungal infections, warts)

Any disorders of lower limb (severe varicose veins , inflammatory conditions of the vessels)

ASSESSMENT CRITERIAS

- Subjective Parameter

Burning Eyes (Netra Daha)

Itching of Eye (Netra Kandu)

Blurred vision (Avila Darshanam)

Headache(Sirashoola)

Pain in neck , shoulder and back (Greeva, Bahu, Kati Shoola)

- Objective Parameter

Dry and irritated eyes (Visushka Netra / Rooksha Netra)

Redness of Eyes (NetraRaaga)

Study Design

An open-label, randomized, controlled clinical trial was conducted

Preparation of Goghtit

OBSERVATIONS

-BURNING SENSATION

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	2.13	0.33	1.80	2.00	15	12.44	0.000
Group B	1.87	0.80	1.07	1.00	15	6.96	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P- Value
Group A	2.00	1.80	0.15	3.48	0.0000
Group B	1.00	1.07	0.13		

ITCHING IN EYES

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	1.53	0.73	0.80	1.00	15	7.48	0.000
Group B	1.83	1.33	0.50	1.00	15	4.96	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P- Value
Group A	2.00	0.80	0.15	7.48	0.0000
Group B	1.00	0.50	0.13		

BLURRED VISION

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	1.93	0.73	1.20	2.00	15	11.31	0.000
Group B	1.83	1.21	0.62	1.00	15	6.22	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P- Value
Group A	2.00	1.20	0.45	9.18	0.0000
Group B	1.00	0.62	0.23		

REDNESS OF EYES

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	2.43	0.43	2.00	2	15	17.25	0.000
Group B	2.43	0.86	1.60	2	15	14.54	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	% of relief Difference (d)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P- Value
Group A	2	2.00	81.90%	0.61	4.36	0.000
Group B	2	1.60	67.14%	0.01		

PAIN IN NECK SHOULDER, BACK

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	2.49	0.49	2.00	3	15	13.53	0.000
Group B	2.49	1.47	1.02	2	15	4.43	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	% of relief Difference (d)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P-Value
Group A	3	2.00	77.62%	0.26	6.27	0.001
Group B	2	1.02	31.19%	0.13		

HEADACHE

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	2.23	0.34	1.89	2	15	15.54	0.000
Group B	2.41	1.90	0.51	2	15	6.98	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	% of relief Difference (d)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P-Value
Group A	2	1.89	85.24%	0.09	5.23	0.000
Group B	2	0.51	41.43%	0.11		

DRY EYES – SHIRMMER TEST

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	2.20	0.54	1.66	1	15	10.81	0.000
Group B	2.26	0.77	1.49	1	15	11.83	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	% of relief Difference (d)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P-Value
Group A	1	1.66	70.95%	0.07	0.72	0.236
Group B	1	1.49	63.33%	0.12		

DRY EYES – TBUT TEST

Group	Mean score			Median diff.	Sample size	Wilcoxon signed rank test	P-Value
	B.T	A.T	Diff.				
Group A	2.20	0.54	1.66	1	15	10.81	0.000
Group B	2.26	0.77	1.49	1	15	11.83	0.000

Group	Median difference (Bef – Aft)	Mean difference (Bef – Aft)	% of relief Difference (d)	S.D. difference (Bef – Aft)	Mann-Whitney U test	P-Value
Group A	1	1.66	70.95%	0.07		
Group B	1	1.49	63.33%	0.12	0.72	0.236

Overall summary of Result:

Parameter	Group A	Group B	Comparative efficacy
Burning Eyes	Significant	Significant	Group A
Itching	Significant	Significant	Group A
Blurred Vision	Significant	Significant	Group A
Redness	Significant	Significant	Group A
Pain in neck shoulder, back	Significant	Significant	Group A
Headache	Significant	Significant	Group A
Shirmer Test	Significant	significant	Equally effective

DISCUSSION-

Aschyotana -

In Ashchyotana therapy, medicine is instilled drop by drop in Kaneenaka Sandhi, a highly vascularized area. In Aschyotan, the drug in the form of an aqueous solution falls on the cornea and conjunctiva from a safe height of 3”or4”continuously. Here, the drug will have access to the conjunctival blood vessels.

It may be true that more than one drop will not stay on the conjunctiva, but when they are dropped from a slightly greater height, continuously for a longer time, and with a slightly higher temperature of the

solution, they will be absorbed more effectively. Hence, the maximum absorption of Ashchyotana Drava occurs in this area compared to other areas of the eye.

Padabhyanga – Ayurveda View

According to Nadi vigyana ,ten nadis are situated in head from them two are related to eyes i.e.Gandhari – (surrounds idanadi) –which extends from pada and ends in Left eye and Hastijihwa- (surrounds pingalanadi), which extends from pada & ends in right eye , according to Vagbhata- two siras situated in the centre of pada which connects to eyes so Applying oil, ghrut, or lepa to the pada (foot region)has a positive impact on eye health

Padabhyanga –Modern View-

By padabhyanga, the somatic sensory area in the cortex may get stimulation, and as both feet and eyes are in the same area, that is, area II of the cortex, its stimulant effect may go to the eyes and may act by improving the function of eyes and reducing the eye strain. Also there might be nourishing or stimulation effect on eyes through the association areas of feet & eyes as both meets at Wernicke's area & improving the function of eyes-blurred vision etc

Massage- increase production of the neurotransmitter serotonin which gives pleasant & calm effect so improvement in headache, pain in neck shoulder & back

Goghrita -

Goghrit is Snehottam, the most important drug in Snehakarma. It is a Rasayana and Chakshushya,Snigdha,Guru, and Mridu. Goghrita is very useful for vitiated pitta and vata dosha in CVS and reduces blurred vision.

Goghrita, Strengthens Ocular muscles due to its chakshusya property. This results in the development of a pupillary reflex and a good convergence mechanism. As a result, patients experience relief from eye fatigue and burning sensations.

Goghrita contains 98% glycerides.It has lubricating properties which is mainstay of computer vision treatment. It contains vitamin A3500/100gm. Vitamin A keeps the outer lining of the eyeball moist. Goghrita also contains betacarotene and Vit E which are well known antioxidants. Which reduces dry eye symptoms

Goghrita, used for Aschyotan karma, contains both lipid- and water-soluble constituents. Thus, it is lipophilic as well as hydrophilic, and hence it has good penetration through various layers of the cornea. The lipophilic action of Goghrita strengthens the lipid layer of the tear film. It increases Tear Film Break up Time and reduces Dryness It has lubricating properties which are very useful in reducing Dryness & Burning sensation Goghrataschyotan is more effective in burning sensation , blurred vision, dryness , redness of eyes in CVS

CONCLUSION -

Goghritaschyotan is less effective in headache and pain in neck shoulder and backache associated with CVS

Goghritpadabhyanga&Goghritaschyotan is effective in improvement in ocular ,accommodative and muscular sign & symptoms of CVS

Goghtit Padabhyanga is a safe, cost-effective, and non-invasive add-on therapy that can significantly alleviate symptoms of Computer Vision Syndrome. Integrating this therapy into clinical settings can enhance patient outcomes, particularly in urban, screen-exposed populations.

WHEN GOGHIRT PADABHYANGA IS ADDED WITH GOGHRIT ASCHYOTANA IN CVS, IT GIVES BETTER RESULTS.

SCOPE & LIMITATION OF STUDY -

Results are helpful and it can be used in large scale for further studies

As this is a pilot study, statistical limitations are present. .

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