

EFFECTIVENESS OF VARTMA NISHPIDAN KARMA AND AMALAKI RASAKRIYA ANJANA IN THE MANAGEMENT OF KLINNAVARTMA (MEIBOMIAN GLAND DYSFUNCTION)- A SINGLE CASE STUDY

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ABSTRACT

Meibomian gland dysfunction (MGD) is a chronic diffuse abnormality of the meibomian gland, commonly characterised by terminal duct obstruction and qualitative /quantitative changes in the glandular secretion. In Ayurvedic science, based on clinical signs and symptoms, MGD can be correlated to Klinnavartma, where the signs and symptoms include Aruja, Bahyatashunam, Antaklinna, Strava, Nistoda, and Kandu. In modern science, the treatment of MGD involves antibiotics, anti-inflammatories, and steroids. The present study focused on Vartma Nishpidan Karma's effectiveness in managing Klinnavartma (MGD). A 64-year-old married female patient came with complaints of Pain, watering, itching and foreign body sensation in both eyes for 3 months and was managed by Vartma Nishpidan Karma and Amalaki Rasakriya Anjana. Prior written consent was obtained from the patient. Significant improvement in symptoms was noticed after the treatment.

Keywords: *Vartma Nishpidan Karma, Klinnavartma, Amalaki Rasakriya Anjana, Meibomian gland dysfunction (MGD).*

INTRODUCTION

Klinnovartma (MGD) is one of the most common ocular conditions. Sushruta Samhita mentions twenty-one (21) Vartma gata roga.¹ Klinnovartma is one of the eye diseases classified under Vartma gata roga. Klinnovartma can be compared with MGD, considering the clinical onset. Meibomian gland dysfunction is a chronic, diffuse abnormality of the meibomian gland, commonly characterised by terminal duct obstruction and qualitative/Quantitative changes in glandular secretion.² Meibomian glands, also known as tarsal glands, are present in the stroma of the tarsal plate arranged vertically. There are about 30-40 modified sebaceous glands in the upper lid and about 20-30 in the lower lid, where the ducts open to the lid margin containing an oily layer of tear film³. MGD is characterised by itching, mild lacrimation, lid margin oedema, mild pain and foreign body sensation symptoms that are worst in the morning⁴. The prevalence of MGD has been reported to vary widely from 3.5% to 69.3% depending on study design and setting, population characteristics and definition of MGD⁵. MGD can lead to altered tear film composition, ocular surface disease, ocular and eyelid discomfort, and evaporative dry eye.⁶

In Ayurvedic science, based on clinical signs and symptoms, MGD can be correlated to Klinnovartma, where the signs and symptoms include Aruja, Bahyatashunam, Antaklinna, Strava, Nistoda, Kandu⁷.

In the modern treatment of MGD, antibiotic, anti-inflammatories, steroids were given.

In Ayurveda, Nishpidan Karma indicated in Vartma Gata roga (Anjan-annamika) So, the Vartma Nishpidan Karma is used in Klinnovartma. In Vartma Nishpidan Karma⁸, two earbuds are used. Then gentle pressure was applied on the lid margin with cotton ear buds (Karpaskrutoshnish shalaka)⁹, and lipid or meibum from the meibomian gland was removed, then Amalaki Rasakriya Anjana was applied.

Patient information

Case report

A 64-year-old female patient came to Chanakya OPD with a complaint of pain, watering, itching, and a foreign body sensation in both eyes for 3 months. She consulted another ophthalmologist, who gave her azithromycin eye ointment for 1 month but did not completely relieve her symptoms, though she had visited Shalakyatantra OPD for management.

Present and past history

The patient was on Ayurvedic medication for Diabetic retinopathy in both eyes for 6 months. She was also taking Allopathic treatment for diabetes mellitus for 10 years and using antimicrobial eye ointment for 1 month. A history of disturbed sleep was reported, and there was no evidence of past history or family history related to the present eye disease condition.

CLINICAL FINDING

On examination, GC – fair

BP- 120/80 mm/Hg

Pulse- 72/min

Temperature – afebrile

Systemic examination

RS-B/L Air entry equal, no crepitus, no wheezing

C.V.S- S1, S2 Normal

CNS- Conscious and well-oriented to time, place.

Local examination

Ocular examination

Visual acuity

	OD	OS	NEAR
Vn	6/18	6/18	N10
Vn (cc)	6/9	6/9	N8
Vn (PH)	6/12	6/12	

The slit lamp examination

	OD	OS
Lid	Meibomitis	Meibomitis
Conjunctiva	Normal	Normal
Sclera	Normal	Normal
Cornea	Arcus senalis	Arcus senalis
Anterior chamber	Maintained	Maintained
Iris	Normal	Normal
Pupil	Round, Regular, Reactive	Round, Regular, Reactive

DIAGNOSTIC ASSESSMENT

The last International MGD workshop (2011) summarised various grading systems used to assess MGD, focusing on meibum expressibility .⁴

Grading system

Table -1: Plugging of gland

0	No plugging of gland orifices
1	Fewer than three plugging of gland orifices
2	Three or more gland orifices with a distribution of less than half of the entire length of the lid
3	Three or more plugging of gland orifices with a distribution of half or more of the entire length of the lid

Table 2: ASSESSMENT CRITERIA

SR no	Symptom	GRADE 0	GRADE 1
1	<i>Aruja/Ruja</i>	<i>Ruja</i> Absent	<i>Ruja</i> present
2	<i>Vartma kandu</i>	<i>Vartma kandu</i> absent	<i>Vartma kandu</i> present
3	<i>Vartma nistoda</i>	<i>Vartma nistoda</i> absent	<i>Vartma nistoda</i> present
4	<i>Netra Strava</i>	<i>Netra Strava</i> absent	<i>Netra Strava</i> present
5	<i>Bahyashunam</i>	<i>Bahyashunam</i> absent	<i>Bahyashunam</i> present

Drug name – Amalaki rasakriya Anjana
 Preparation of Amalaki Rasakriya Anjana
 Fresh Amalaki fruits and leaves with water in ratio 1:16 were boiled on a low flame to turn into Kwath. After that the Kwath was reheated till it completed evaporation of water to make the Rasakriya.
 Dose of drug - Vellamatra rasakriya (Vagbhata sutrasthana 23-14)

MODE OF ADMINISTRATION: Topical (Local Application)

using swanguli

Time: Once a day

DURATION - 15 DAYS

i.e Vidanga phala matra = 60mg

**THERAPEUTIC INTERVENTION
PROCEDURE OF VARTMA NISHPIDAN KARMA
AND ANJANA KARMA
PURVAKARMA**

Patient to be treated with vartma nishpidana karma should be placed in a comfortable position I.e sitting position.

Then mrudu swedan will be given.

After swedan karma patient say to look forward. One drop of topical anesthesia (Proparacaine) into the conjunctival scale was instilled.

PRADHANAKARMA

Two cotton earbuds were taken. Then one earbud was placed in the lower fornix and the other was placed externally on the lid margin.

Then gentle pressure was applied on the lid margin with cotton ear buds (Karpaskrutoshnish shalaka) and sticky discharge from meibomian gland was removed on day 1st ,4th ,7th ,15th day.

Then apply Amalaki Rasakriya Anjana on lower lid for 7 days. After the application of Anjana, the patient was asked to close the eye, and the eyeballs were rotated.

Then slow blinking was done due to which lacrimation from the out of the doshas also come out. Whenever lacrimation stops and Samyak lakshana seem. Wash the eyes with distilled water properly.

PASHCHAT KARMA

After washing the eyes properly, the eyes were cleaned with a clean cloth. Then he asked patient to maintain the eyelid hygiene like not to rub, not to touch eyelid frequently.

FOLLOW UP

1 On 1st day

On 4th day

On the 7th day

On the 15th day

Observation and result

Clinical assessment before and after treatment

Signs and symptoms	Before Treatment		After treatment							
	Day 1		Day 4		Day 7		Day 15			
	Grade		Grade		Grade		Grade		Percentage OF relief	
	RE	LE	RE	LE	RE	LE	RE	LE	RE	LE
Plugging of gland	3	3	2	2	0	0	0	0	100%	100%
Aruja /Ruja (No pain/Pain)	1	1	0	0	0	0	0	0	100%	100%
Vartma kandu(Itching)	1	1	1	1	0	0	0	0	100%	100%
Vartma nistoda (F.B sensation)	1	1	0	0	0	0	0	0	100%	100%
Netra Strava (Lacrimation)	1	1	1	1	0	0	0	0	100%	100%
Bahyashunam (lid margin oedema)	1	1	1	1	0	0	0	0	100%	100%



Fig 1- Day 1 plugging of gland

Grade 3 -Three or more pluggings of orifice with a distribution of Half or more of the entire length of the lid



Fig 2-Day 4 plugging of gland

Grade-2 Three or more pluggings of gland orifice with a distribution of less than half of the entire length of



Fig 3-Day 7 plugging of gland

Grade 0-No plugging of gland

Result

The patient was assessed on the 4th, 7th and 15th days, and the results were analysed, considering the Grading system adopted for the clinical features in each visit. There was a marked reduction in Ruja and, Vartma nistoda, Bahyashunam within 4 days, while slight Netra Strava, Netrakandu and gland plugging was present (Fig 2). After two weeks, the patient was asymptomatic with a good prognosis (Fig 3)

There were no reported adverse effects of vartma nishpidana karma, and it was well tolerated. After completion of treatment, the patient was followed up for another 15 days. The patient was completely free with 100% relief from the disease, and relapses were not reported during the 15 days of follow-up. The clinical assessment before and after treatment is shown in Table -3

DISCUSSION

The signs and symptoms of MGD are similar to the signs and symptoms of Klinnavartma.

According to Sushruta, vitiated kapha dosha gets accumulated in Vartma Gata Siras and vitiate of Rakta and Mansa Dhatu present in vartma¹⁰ which eventually increases the Meda by Uttarothara Poshana Nyana, which creates symptoms of Klinnavartma.

Inflammatory conditions can be related to Vranashotha. MGD is inflammation of the meibomian gland, which is situated at the Vartma, i.e. eyelid so that Klinnavartma (MGD) can be considered as

vartmagata Vranashotha. According to Sushrut Samhita, one of the treatments of Vranashotha is shodhan, i.e extraction of dosha or pus. Sushruta mentioned in dvivraneeeya Adhyaya that if pus is accumulated in the pocket and its opening is tiny, then pus can be removed with the procedure of Pidana¹¹ or Nishpidan, similar to scenario seen in MGD. Obstructed meibum was removed using Nishpidan in Klinnavartma.

As we know, cutting the roots of trees will eventually stop their growth. Vartma Nishpidan Karma, with the help of Karpaskrutoshnish Shalaka, helps to prevent further accumulation. Karpaskrutoshnish shaka can be co-related with earbuds. Nishpidan karma creates pressure around the eyelid, resulting in the expulsion of the Obstructed meibum (Meibum or lipid) and, hence, decreasing the symptoms. Amalaki rasakriya Anjana which is applied after Nishpidana karma.

Amalaki has tridosahara, Chakshushya, Rasayan properties and Lavanarahita pancharasa. Laghu, Ruksha Guna and Tikta Kashaya Rasa lower the kapha dosha and help to reduce the symptoms caused by the accumulation of secretions in the meibomian gland.

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