

## CASE-BASED ANALYSIS OF NIMESHA (BLEPHAROSPASM) MANAGEMENT VIA AYURVEDA

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### ABSTRACT

Blepharospasm is a neurological condition marked by frequent, involuntary closure of both eyelids, primarily due to the uncontrolled contraction of the orbicularis oculi muscles. It is considered a form of dystonia - a movement disorder defined by sustained or intermittent muscle contractions that cause abnormal movements or postures. In Ayurveda, involuntary eye blinking is associated with *Nimesha Vyadhi*, which is classified under *Vartmagata Vyadhi* and is caused by an imbalance of *Vata Dosha*. Ayurveda offers safe and effective relief for some conditions that may be difficult to treat with modern medicine. This case study reports the treatment of a patient suffering from *Nimesha Vyadhi*, who experienced discomfort in daily activities due to continuous involuntary blinking of both eyelids during walking. The condition was managed using Ayurvedic medicines and procedures. The patient received both topical and internal Ayurvedic treatments. This case highlights that Ayurvedic therapies and medications aimed at balancing *Vata*

*Dosha* can be effectively utilized to manage *Nimesha Vyadhi*.

**KEYWORD:** *Vartmagata Vyadhi*, *Nimesha*, Blepharospasm.

## INTRODUCTION

The eyes are one of the most advanced sensory organs in the body and Shalakya Tantra is one among eight branches of Ayurveda dealing with it. In fact, a much larger portion of the brain is devoted to processing visual information than to hearing, touch, taste, and smell combined. Although we often take our eyesight for granted, when vision problems arise, most people will do whatever they can to restore their vision to normal. Blepharospasm is a type of focal dystonia characterized by eyelid spasms, involuntary eye closure, increased spontaneous blinking or a combination of these symptoms. Blepharospasm is classified as a form of dystonia, which is a movement disorder marked by either continuous or sporadic muscle contractions. Dystonia is categorized as a movement disorder and is defined by muscle contractions that are either continuous or occur intermittently. This results in repetitive, abnormal movements or postures that often follow a specific pattern and may involve twisting or tremor-like motions. In many forms of dystonia, voluntary movements tend to worsen the condition due to excessive muscle activation.<sup>[1]</sup> Dystonia has the potential to impact any region of the body and can manifest at various ages.<sup>[2]</sup> Blepharospasm involves the simultaneous contraction of both agonist and antagonist muscles, leading to involuntary eyelid closure. The exact cause of Blepharospasm remains unclear. However, certain genetic mutations have been linked to its development. Approximately 20% to 30% of cases show a positive family history of Benign Essential Blepharospasm, suggesting a hereditary component. Additionally, some genes are believed to increase susceptibility to the condition.<sup>[3]</sup> Other potential factors involved in its pathogenesis include neurotransmitter imbalances, structural brain abnormalities, and a history of underlying eye disorders.<sup>[4]</sup> In Ayurveda, out of the 76 *Netrarogas* detailed, 21 disorders specifically related to the eyelids have been identified. *Nimesha* is classified as one of the *Vartmagata Rogas*. This condition is marked by frequent involuntary movements of the eyelids. The vitiated *Vayu* enters the channels which are responsible for opening and closure of eyelids causing excessive movements.<sup>[5]</sup> Blepharospasm is a condition characterized by frequent involuntary closure of both eyelids, primarily caused by uncontrolled contractions of the orbicularis oculi muscles.<sup>[6]</sup> The typical blinking rate is between 12 and 16 blinks per minute.<sup>[7]</sup>

In fact, multiple contributing factors often need to be present in an individual for the disease to manifest. This concept is supported by the "two-hit hypothesis," which suggests that both a genetic or biological predisposition and an environmental trigger must occur simultaneously for the condition to develop.<sup>[8]</sup> While the precise cause of Blepharospasm remains unknown,

there is currently no definitive cure. Nonetheless, several treatment approaches are available to help manage and alleviate the symptoms as Photochromatic Modulation, Botulinum Toxin injections, Oral Pharmacotherapy, Surgical Management. Although the life expectancy of individuals with Blepharospasm is generally not impacted, the condition can significantly diminish quality of life. Many live with persistent anxiety about disease progression, often requiring increasing doses of botulinum toxin for symptom relief. Over time, some may reach a stage where the treatment becomes less effective. Additionally, feelings of insecurity and embarrassment during social interactions are common, often leading to social withdrawal and isolation. Botulinum toxin injections can cause various side effects, including ptosis, diplopia, photophobia, ecchymosis, epiphora, blurred vision, lagophthalmos potentially leading to dry eyes and exposure keratitis among others. The risk of these complications tends to decrease with repeated treatments. In classical texts of Ayurveda also *Nimesha* have been classified as incurable eye conditions.<sup>[9]</sup> Ayurveda offers safe and effective relief for some conditions that may be difficult to treat with modern medicine. This *Nimesha* Patient often struggle to focus clearly and experience significant discomfort and was not getting relief with Allopathy medicines. Therefore, the patient sought treatment with us, and following Ayurvedic therapy, showed significant improvement in symptoms, with reduced abnormal eyelid movements and minimal side effects.

### CASE DESCRIPTION

A 60-year-old Hindu male presented to the Shalakya Tantra outpatient department at the National Institute of Ayurveda in Jaipur. The patient reported frequent involuntary eyelid movements during walking since 4 years and a sensation of tiredness around the eyes, eye irritation, difficulty in opening eyes in light, blurring in near and far vision. The patient had previously been treated with allopathic medicines, which provided only minimal relief initially but were ultimately ineffective. He also received Botox injections around the eyes, which typically begin to work a few days after administration and reach full effect within about a week. Consequently, he chose to explore Ayurvedic treatment as an alternative management approach. The patient had medical history of Diabetes Mellitus and Hypertension since 6 years and on allopathy medication and now under control and no family history of notable illnesses was found. He also denied any tobacco use, smoking, or alcohol consumption. The patient had stable vital signs (pulse: 78 bpm, respiratory rate: 22 breaths per minute, blood pressure: 124/88 mmHg). Informed consent from the patient was also obtained before starting therapy.

## ON EXAMINATION

STRUCTURES	RIGHT EYE	LEFT EYE
<b>LIDS</b>	Continuous involuntary blinking of both eyelids during walking	Continuous involuntary blinking of both eyelids during walking
<b>LASHES</b>	Normal	Normal
<b>CONJUNCTIVA</b>	Palpebral and Bulbar congestion	Palpebral and Bulbar congestion
<b>CORNEA</b>	Clear	Clear
<b>PUPIL</b>	NSNR	NSNR
<b>LENS</b>	PSC early changes	PSC early changes
<b>DVA (WITH SPECTACLES)</b>	6/6p	6/6p
<b>NVA (WITH SPECTACLES)</b>	N/6	N/6
<b>IOP NCT</b>	20mmhg	20 mmHG

## DIAGNOSTIC ASSESSMENTS

GRADE	SPASM SEVERITY	LEVATOR MUSCLE FUNCTION	EYE BLINKING RATE PER MINUTE
0	No Spasm	Normal	15-20
1	Mild Spasm at stimulation only	Good	21-25
2	Moderate Visible spasm without impairment of life	Fair	26-30
3	Severe Visible spasm with impairment of life	Poor	31-35

GRADE	PHOTOPHOBIA	STIFFNESS
0	Absent	Absent
1	Present	Present

## TREATMENT PLAN

DRUG	METHOD	DOSE	DURATION
<b>1. Dhanyaka Musta Sunthi</b>	Orally	15gm 10gm 5gm	60 Days (Boil in 2.5 litre water until 2 litre remained and use whole day)
<b>2. Ekangaveer Rasa</b>	Orally with <i>Madhu</i> and <i>Ghrita</i>	250mg	Twice a day for a duration of 60 Days
<b>3. Dashmoola Kwath</b>	Orally	30ml	Twice a day for a duration of 60 Days
<b>4. Ksheerbala Taila</b>	<i>Pratimarsha Nasya</i>	2-2 drops	Twice a day for a duration of 60 Days
<b>5. Mahamasha Taila</b>	Topically (Ocular Massage)	-	Twice a day for a duration of 60 Days
<b>6. Mahayogaraja Gugullu</b>	Orally	500 mg	Twice a day for a duration of 60 Days
<b>7. M-Sankhapushpi syrup</b>	Orally	30 ml BD	Twice a day for a duration of 60 Days

8. <i>Erandbhrishta Haritaki</i>	Orally	5gm	HS (Once at night) for a duration of 60 Days
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## RESULT

The patient experienced a good relief with Spasm Severity reduced from Grade 2 to Grade 1, Levator Muscle Function from Grade 2 to Grade 1, Eye Blinking Rate Per Minute from range 31-35 to range 21-25 without any complications and was advised to return for a follow-up after fifteen days. The patient also showed very good relief in sensation of tiredness around the eyes, eye irritation and photophobia. Blurring in near and far vision was also corrected with the help of proper no. of spectacles. On follow up also there was improvement maintained.

## DISCUSSION

Although *Nimesha* is considered an incurable (*Asadhya*) condition in both Ayurveda and modern medicine, it can be managed as a *Yapya* disease. Classical *Acharyas* like *Gad Nigraha* and *Vrinda Madhav* have recommended therapies and medicines for managing it through the Ayurveda. So this study was planned to know the effectiveness of Ayurveda in management of *Nimesha*. Various Ayurveda medicines nourishes the *Dhatus* which later helps to strengthen muscles and veins. *Acharya Sushruta* regarded *Vata Vyadhi*, specifically *Nimesha*, as a condition more prevalent in the elderly and even in contemporary times. Allopathy Science have limited interventions including Botox injections around the Eyes, which typically begin to work a few days after administration and reach full effect within about a week. In contrast, Ayurvedic medicines provided more lasting effects at a lower cost and with fewer side effects. So this case was taken and treated with Ayurveda therapeutics. Together, these therapies disrupt the disease process (*Samprapti Vighatana*), providing not only symptom control but also rejuvenation of the sensory organs and overall body health. *Dhanyaka* was given to the patient as it is having *Tridhosha Shamaka* (reduces *Vata*, *Pitta* and *Kapha*),<sup>[10]</sup> *Deepana* (appetizer), *Pachana* (improves digestion) actions so balances the *Doshas* in *Nimesha* and increases the *Agni*. *Dhanyaka* components include 84% water, proteins (20%), tannin, malic acid, vitamin A, and volatile and fixed oils (0.3–1% and 13%, respectively).<sup>[11]</sup> The drug *Musta*<sup>[12]</sup> given is indicated in *Agnimandya*, *Ajirna*, *Amadosha*, *Apasmara*, *Aruchi*, *Daurbalya*, Epilepsy, *Grahani Roga*, *Netraroga* so used in *Nimesha*. *Musta* has Certain experimentally validated properties include anti-inflammatory activity, anti-convulsant action, antioxidant activity, anti-diarrheal activity, anti-ulcer activity, cardio-protective and anti-hyperlipidemic action, anti-diabetic action, anti-allergic activity,

hepatoprotective action, as well as ovicidal and larvicidal effects, and wound healing.<sup>[13]</sup> *Shunthi* successfully harmonizes *Kapha* and *Vata* showing its capacity to absorb *Kapha* and *Ama Dosha* when dried, which is exactly the reason it is referred to as *Shunthi*<sup>[14]</sup> so helpful in cope up *Nimesha*. Recent scientific investigations have confirmed its traditional uses, illustrating that *Shunthi* has multiple therapeutic properties, such as anti-inflammatory, antioxidant, anti-nausea, and analgesic effects. In the *Charaka Samhita*, *Acharya Charaka* prominently introduced *Shunthi* in *Sutrasthan*, "*Sadvirechanshataashritiya*" and emphasized its properties under the categories of *Deepaniya*, *Triptighna*, *Arshoghna*, *Shitaprashmana*, and *Shoolaprashman Mahakashaya*, furthermore, also as "*Aharopayogi Varga*.

*Ekangaveer Rasa* given to the patient is a Herbo-mineral medicine, which includes *Bhasma* as an ingredient, representing the highest quality of medicinal form. *Bhasma* is the most ancient method of administering nano medicine. In the *Vatvyadhi Prakarana* of *Nighantu Ratnakar*, *Ekangaveer Rasa* is referenced for the treatment of *Pakshaghata* and other *Vatvyadhi* conditions and *Nimesha* is also a *Vatvyadhi* so it is helpful in it also. Also the characteristics of the components of *Ekangaveer Rasa* will play a crucial role in rejuvenating the *Gati* (motor activities) and *Gandhana* (sensation). *Amalaki*, *Pippali*, *Shigru* and *Maricha* present in it possess the capability to reduce nerve damage owing to their anti-inflammatory properties. Piperine contributes to enhancing patient outcomes by alleviating inflammatory characteristics at the location of brain injury. The antioxidants and atherosclerotic properties of these ingredients, along with *Bhavana Dravya*, are effective in mitigating oxidative stress caused by free radicals. *Gandhaka Bhasma* present in *Ekangaveer Rasa* is having *Vata Kapha Shamaka*, *Yogvahi*, *Rasayana*, *Dipana*, *Aamashoshana*, *Vishahara* actions. *Parada Bhasma* present in it is *Yogvahi Tridosha Shamaka Rasayana*, *Saptadhatuwardhana*. *Loha Bhasma* is *Tridosha Shamaka*, *Rasayana*, *Bruhana*, *Medhya*. *Vanga Bhasma* is *Vata Shamaka*, *Netraya* and *Naga Bhasma* is *Kapha Vata Shamaka*, *Rasayana*. *Tamra Bhasma*<sup>[15]</sup> is *Kapha Pitta Malaanuloman*, *Dipana*, *Pachana*, *Yogavahi* and *Abhraka Bhasma* is *Kashaya Madhura Shita Madhura Snigdha Tridosha Shamaka Saptadhatuwardhak*, properties. *Dashmoola Kwath* is given to the patient, as per *Ayurveda*, primarily targets the *Vata Dosha*, alleviating its aggravation. *Dashmoola* is regarded as one of the most potent combinations of various plants used in *Ayurveda*. *Dashamoola* exhibits anti-inflammatory, analgesic, and anti-platelet properties that are comparable to those of aspirin.<sup>[16]</sup>



*Nasya Karma* is a procedure in which herbalized oil and liquid medicines are administered through the nostrils. Given that the nose serves as the gateway to the head, this method is particularly effective in treating various diseases related to the head, provided it is performed systematically. It cleanses and opens the channels of the head, thereby enhancing the process of oxygenation and prana, which directly influences brain function.<sup>[17]</sup> *Ksheerbala Taila* because of its preparation method demonstrates excellent spreading ability in fine channels and achieves *Tridosahara* and *Indriya Balavardhaka* properties. *Ksheerbala Taila* contains *Tila* and *Bala*. *Tila* has *Madhura Rasa* and *Tikta Anurasa* along with *Ushna Virya*, while *Bala* possesses *Madhura Rasa*, *Guru Snigdha* and *Picchila Guna*. These characteristics enable *Ksheerbala Taila* to have *Vatapittashamaka*, *Deepana*, *Pachana* and *Rochana* properties. Consequently, it contributes to the enhancement of overall health and fortifies both the body and joints. *Mahamasha Taila* has been referenced in relation to *Vatavyadhi chikitsa*. It effectively treats nearly all *Vata* disorders, such as hemiplegia, facial paralysis, sciatica, and trembling in the hands, feet, head, and neck, as well as slow movement, among others. This formulation can be administered orally, through enema, nasal instillation, or by applying drops in the eyes and ears, and it is also suitable for external use in body massage. Previous research on this formulation has demonstrated its efficacy in alleviating sensory neural hearing loss (*Badhirya*)<sup>[18]</sup> which is also a *Vataja* disease same as *Nimesha*. *Mashasaindhava Taila* is noted in the context of *Vatavyadhi chikitsa* within *Ashtanga Hrudaya*. It is utilized for *Abhyanga* in the management of spasticity.<sup>[19]</sup> According to Ayurvedic literature, it is mentioned that *Mahayograj* Guggulu is not only advantageous for alleviating pain but also for various *vata*, *pitta*, and *kapha* disorders.<sup>[20]</sup> *Mahayograj Guggulu* is a well-known remedy for *vatavyadhi*, recognized for its *vatashamak* properties. The primary ingredient, *Guggulu*, is noted for its *vatahara* characteristics. It comprises various *Bhasmas*, including *Vanga*, *Ropa*, *Loha*, *Abhraka*, *Mandura* and *Rasasindura*. Additionally, it contains several *Agnideepak* and *Pachak Dravyas* that address *Ama* and treat conditions such as *Agnimandya* and *Malavastambha*. *Mahayograj Guggulu* influences the vitiated doshas of *Vata*, *Pitta* and *Kapha*, helping to restore balance. Its *Rasayana* properties further enhance its efficacy.

*Shankhpushpi* is recognized as a *Medhya* (brain tonic) and *Rasayana* (immunomodulator) in Ayurveda. This well-known medicinal herb is thought to enhance various aspects related to intellect and memory enhancement. It contains active constituents primarily in the form of proteins, amino acids, and alkaloids such as convolvine, convolamine, confoline, phyllabine,

and convolidine, along with hydrocarbons, aliphatic compounds, sterols, and other biochemicals. The herb promotes a sense of calm and tranquility, facilitates good sleep, and alleviates anxiety, stress, and mental fatigue. It influences the neurochemistry of the brain to exert its effects so here used in patient of *Nimesha*. *Haritaki* serves as a *Deepana*, *Pachana*, *Strotoshodhaka* and its *Ushna Virya* and *Laghu Guna* enable it to perform *Anulomana Karma*, attributed to its *Amla Rasa* and *Madhura Vipaka*. Additionally, it acts as a *Vedanasthapaka* due to its *Ushna Virya*.<sup>[21]</sup> *Eranda* opposes *Vata Dosha* due to its inherent properties and is also considered the premier *Vata* pacifier and *Dhatuposhaka* (*Vaya Sthapaka*, *Rasyana*, *Vrushya*). It possesses *Pakvashayashodhaka* action. Therefore, it enhances the attributes of *Haritaki*, resulting in a more potent formulation. *Eranda Bhrishta Haritaki*, commonly referred to as *Gandharva Haritaki*, is a well-known Ayurvedic formulation used for the treatment of pain associated with *Amavata* (Rheumatoid Arthritis), *Grudhrasi* (Sciatica) and *Ardita* (Facial Paralysis).<sup>[22]</sup> The formulation is also utilized therapeutically according to the indications of the individual components it contains, namely, *Haritaki* (*Terminalia chebula*) and *Eranda* (*Ricinus communis*) castor oil. This formulation is employed for *Anulomana* (Carminative), *Vruddhi*, *Vatavyadhi*, *Ajirna* (indigestion),<sup>[23]</sup> etc. In short among all medicines prescribed most of them have *Vata-shamaka* (Vata-pacifying) qualities, targeting the nerve dysfunction responsible for abnormal eyelid movements, as they help balance the disturbed *Vata Dosha* characterized by its *Chala* (mobility) nature. The medications utilized in this context exhibit effects akin to *Vatashamak*, *Rasayana* and *Balya*. As a result, most symptoms of *Nimesha* are alleviated, along with a general sense of relaxation and well-being throughout the body.

## CONCLUSION

This case study is presented to explore the condition of *Nimesha Vyadhi* as described in Ayurvedic texts and to examine its potential treatment methods. Allopathy science have limited interventions including Botox injections around the eyes but the benefits of Botox usually last for two to three months before wearing off, requiring repeat injections every 5-6 months, often with progressively higher doses. Botox works by weakening muscle contractions and blocking nerve signals to and from the muscles around the eyes. Accidental migration of the toxin into the eye socket may cause ptosis and diplopia due to paralysis of the levator or extraocular muscles. Since many Blepharospasm patients experience some degree of difficulty in opening their eyelids voluntarily (apraxia of eyelid opening), injections are often targeted to the pretarsal orbicularis oculi muscle. Patients are routinely advised to



apply lubricating eye ointment for the first two to three weeks after treatment and to increase the use of eye drops during this period. Additionally, botulinum toxin injections can reduce tear drainage by lowering the blink rate and causing laxity in the lower eyelid due to paralysis of the lacrimal portion of the orbicularis oculi muscle. Other medications used by the patient had limited impact on neuralgia and neurotonic symptoms and were generally unsatisfactory in controlling the disease. So a need was found to look its management through Ayurveda. In the present case study, *Nimesha* was addressed through the application of oral medicines, *Nasya* and ocular massage prominently keeping in mind of *Shamana* of *Vata*. The localized treatment effectively eliminates the vitiated *Doshas*, thereby nourishing the sensory organs. Consequently, in this patient suffering from *Nimesha*, the majority of symptoms are resolved to a maximum limit and he experience overall improvement because many Ayurvedic therapies have rejuvenating effects on the entire body.

#### DISCLOSURE OF CONFLICT OF INTEREST

There are no conflicts of interest.

**ETHICAL APPROVAL STATEMENT:** The current research does not pose any harm to humans or animals and is ethically sound, as consent was obtained from the patient.

**INFORMED CONSENT STATEMENT:** A consent form was obtained from the patient, granting permission for treatment. The patient is informed that her name and initials will remain confidential, and reasonable steps will be taken to safeguard her identity; however, complete anonymity cannot be guaranteed.

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