



MANAGEMENT OF MYOPIC ASTIGMATISM THROUGH AYURVEDIC INTERVENTION: A CASE STUDY

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ABSTRACT

Introduction: Myopic astigmatism is a common refractive error characterized by blurred and distorted vision. Conventional management is limited to optical correction. In Ayurveda, similar visual disturbances are described under *Timira*, particularly *Vataja Prathama Patalagata Timira*. **Materials and Methods:** A 25-year-old male diagnosed with myopic astigmatism in both eyes was managed using a *samprapti*-based Ayurvedic treatment protocol including *Deepana-Pachana*, *Nasya*, *Tarpana*, *Pindi*, and internal medications. Visual acuity, refraction, and associated symptoms were assessed over a follow-up period of 46 days. **Results:** Gradual improvement in unaided distant visual acuity, reduction in headache and ocular pain, and mild reduction in refractive power were observed. Best corrected visual acuity remained 6/6 in both eyes, with reduced dependency on spectacles. **Conclusion:** The case suggests that Ayurvedic management may have a supportive role in myopic astigmatism.

KEYWORDS: Myopic astigmatism; *Timira*; *Vataja Timira*; *Nasya*; *Tarpana*.

INTRODUCTION

Refractive errors are among the most common causes of visual impairment worldwide^[1], significantly affecting quality of life and daily functioning. Myopic astigmatism is a type of refractive error characterized by blurred and distorted vision due to unequal curvature of the cornea or lens, resulting in improper focusing of light rays on the retina. Conventional management primarily involves optical correction using spectacles or contact lenses,^[2] which provides symptomatic relief but does not address the underlying functional aspect of the condition.

In Ayurvedic literature, visual disturbances resembling refractive errors are described under *Timira*, particularly involving the early stages of *Patalagata Timira*. *Vataja Prathama Patalagata Timira*^[3] is characterized by indistinct and distorted vision, described as *Vyavidhani*

Pashyati^[4,6], which closely correlates with the clinical presentation of astigmatism. Factors such as excessive use of eyes, prolonged visual strain, and improper lifestyle practices contribute to vitiation of *Vata dosha*, leading to functional disturbance of the visual apparatus.

Ayurveda emphasizes a *samprapti*-based approach that focuses on correcting the underlying *dosha dusti*, improving ocular nourishment, and restoring functional integrity of the *Drishti Mandala*. This case study aims to evaluate the effect of Ayurvedic interventions in the management of myopic astigmatism by correlating the condition with *Vataja Prathama patalagata Timira* and assessing clinical outcomes.

CASE PRESENTATION

A 25-year-old male patient presented to the Outpatient Department of *Shalakyā Tantra*, Sri Jayachamarajendra Ayurveda and Unani Hospital, Bengaluru, with complaints of progressive blurring of vision for distant objects in both eyes in the last 9 years associated with headache and mild eye pain.

History of present illness

The patient was apparently asymptomatic 9 years prior, following which he experienced gradual, painless blurring of distant vision in both eyes for the past 9 years. The visual disturbance was insidious in onset and progressive in nature, predominantly affecting distance vision. It was associated with intermittent headache and mild ocular pain, especially after prolonged visual tasks such as reading and screen use.

The patient had been using corrective spectacles for the past 9 years, with partial improvement in vision. However, he reported persistent visual discomfort and dependency on spectacles, prompting him to seek Ayurvedic management.

There was no history of sudden vision loss, diplopia, photophobia, redness, watering, trauma, ocular surgery, or systemic illness.

Past Medical History

There was no history of diabetes mellitus, hypertension or other systemic illnesses.

Past Ocular History

There was no history of ocular trauma, surgery, or allergic eye disease.

Personal History

The patient was on a mixed diet previously and shifted to a vegetarian diet 3 years ago. He reported adequate sleep duration, however, with a habit of late-night sleeping. The patient also had a history of prolonged screen exposure due to occupational requirements.

Family History

Family history was non-contributory, and all family members were reported to be healthy.

Ocular Examination

On extraocular examination, both eyes appeared normal. Slit-lamp examination revealed normal lids, conjunctiva, cornea, anterior chamber, iris, and lens in both eyes.

Intraocular pressure (IOP) was within normal limits in both eyes.

Fundus Examination

Fundus examination of both eyes were within normal limits.

Systemic Examination

General physical and systemic examination did not reveal any abnormalities. His pulse rate was 76 per min and Blood pressure was 120/80 mmHg.

Table 1: Extra ocular examination.

Structure	Examination	Right Eye	Left eye
Eyelids	Position	Normal	Normal
	Movements	Normal	Normal
	Lid margin	NAD	NAD
Lacrimal apparatus	Lacrimal Sac	NAD	NAD
	Puncta	Normal	Normal
Eyeball	Position	Symmetrically placed	Symmetrically placed
	Visual Axis	Normal	Normal
	Size	Normal	Normal
	Movements	Normal	Normal

Table 2: Slit lamp examination

Structure	Examination	Right Eye	Left eye
Conjunctiva	Congestion	Absent	Absent
	Follicle	Absent	Absent
	Papillae	Absent	Absent
Cornea	Size	Normal	Normal
	Shape	Circular	Circular
	Sheen	Present	Present
	Surface	Smooth	Smooth
Anterior Chamber	Depth	Normal	Normal
Pupil	Size	4mm	4mm
	Shape	Round, Regular	Round, Regular
	Reactions	Normal	Normal
Iris	Color	Brown	Brown
	Pattern	Normal	Normal
Lens	Transparency	Clear	Clear

Table 3: Visual acuity.

Visual acuity	Unaided Distant vision	Pin hole	BCVA	Near Vision
Both eye	3/60	-	6/6p	N6
Right eye	3/60	6/12	6/6p	N6
Left eye	3/60	6/12	6/6p	N6

Table 4: Refraction findings.

	Spherical	Cylindrical	Axis
Right Eye	-3.0 D	-0.75 D	@180 ⁰
Left Eye	-3.0 D	-0.25 D	@20 ⁰

Table 5: Fundus examination

Structure	Right eye	Left eye
Media	Clear	Clear
Optic disc	Normal	Normal
Macula	Foveal Reflex +	Foveal reflex +
Retinal Blood vessels	Normal	Normal
Background	Normal	Normal

Diagnosis

Based on the patient's clinical presentation, ophthalmic examination, and refraction findings, the diagnosis was established as: Myopic astigmatism in both eyes (OU)

NIDANA PANCHAKA

Nidana

In the present case, the following causative factors were identified, which predominantly lead to aggravation of Vata dosha affecting the visual apparatus:

- Excessive use of eyes due to prolonged screen exposure
- Habit of late-night sleeping
- Continuous visual strain over a long period
- Improper visual hygiene leading to functional stress on ocular structures

These factors collectively result in Vata dosha vitiation, particularly affecting the *Drishhti Mandala*,³ leading to the manifestation of *Timira*.

Purvarupa

Although distinct prodromal symptoms were not clearly elicited, the following early features can be considered as indicative:

- Eye strain after prolonged visual tasks
- Intermittent headache
- Gradual difficulty in seeing distant objects

Rupa

The clinical features observed in the patient closely resemble *Vataja Timira* involving *Prathama Patala*:

- Reduced clarity of distant vision
- Indistinct or blurred vision
- Perception of objects as distorted or irregular (*Vyaviddhani Pashyati*)^[4]
- Intermittent headache
- Mild ocular discomfort without signs of inflammation

Correlation with astigmatism

The classical description "*Vyaviddhani Pashyati*"⁴ indicates distorted or irregular perception of objects. This can be clinically correlated with astigmatism, where unequal curvature of the cornea or lens causes improper focusing of light rays, resulting in distorted retinal images.

Samprapti

Continuous exposure to causative factors such as prolonged screen use, excessive near work, and habitual late-night sleeping leads to gradual aggravation of *Vata dosha*. The aggravated *Vata* localizes in the ocular structures, particularly the *Drishhti Mandala*, where it interferes with the normal functioning of the visual mechanism. Due to *Vata* predominance, there is functional disturbance of *Alochaka Pitta*, resulting in impaired perception of visual stimuli. Involvement of the first *patala* causes altered refractive function, leading to indistinct and distorted vision. This manifests clinically as difficulty in distant vision and irregular perception of objects, described in classical texts as *Vyaviddhani Pashyati*.^[6] Thus, the pathological process culminates in *Vataja Prathama Patalagata Timira*, which can be correlated with myopic astigmatism in the present case.

Ayurvedic Diagnosis

Vataja Prathama Patalagata Timira, clinically corresponding to myopic astigmatism in both eyes.

Table 6: Treatment given.

Timeline	Treatment Given	Observation	Subjective Improvement
Day 0 (20/06/2025)	Evaluation of patient	UADVA: 3/60 OD, 3/60 OS. PH: 6/12 OD, 6/12 OS. UANVA: N6 OD, N6 OS. BCDVA: 6/6p OD, 6/6p OS. Refraction: -3.00 D spherical with -0.75 D cylindrical at 180° OD. -3.00 D spherical with -0.25 D cylindrical at 20° OS.	BOV with headache and ocular pain. Dependency on spectacle for daily activities.
Day 1-5 (21/06/2025-25/06/2025)	<i>Deepana pachana</i> with <i>Chitrakadi vati</i> TID before food	UADVA: 3/60 OD, 3/60 OS. PH: 6/12 OD, 6/12 OS. UANVA: N6 OD, N6 OS. BCDVA: 6/6p OD, 6/6p OS.	Symptoms persist.
Day 6-12 (26/06/2025-02/07/2025)	<i>Nasya karma</i> with <i>Panchendriyavardhana taila</i> 12 drops in each nostrils before food.	UADVA: 6/60 OD, 6/60 OS. PH: 6/12 OD, 6/12 OS. UANVA: N6 OD, N6 OS. BCDVA: 6/6p OD, 6/6p OS.	Frequency of headache and Ocular pain reduced
Day 13-19 (03/07/2025-09/07/2025)	<i>Tarpana</i> ⁵ with <i>Jivantyadi Ghrita</i> Internal Medicine <ul style="list-style-type: none"> <i>Saptamritha loha</i> 2 HS after food Mixture of <i>Triphala choorna</i>, <i>Yastimadhu Choorna</i> and <i>ashwagandha</i> 1 tsf with Ghee and Honey HS After food. 	UADVA: 6/36p OD, 6/36p OS. PH: 6/12 OD, 6/12 OS. UANVA: N6 OD, N6 OS. BCDVA: 6/6p OD, 6/6p OS.	Headache and ocular pain reduced.
Day 20-26 (10/07/2025-16/07/2025)	<i>Pindi</i> with <i>Shighru</i> , <i>Vasa</i> , <i>Guduci</i> , <i>Punarnava</i> , <i>Triphala choorna</i> , <i>Yastimadhu choorna</i> and Butter. Internal Medicine <ul style="list-style-type: none"> <i>Saptamritha loha</i> 2 HS after food Mixture of <i>Triphala choorna</i>, <i>Yastimadhu Choorna</i> and <i>ashwagandha</i> 1 tsf with Ghee and Honey HS After food. 	UADVA: 6/36 OD, 6/36 OS. PH: 6/12 OD, 6/12 OS. UANVA: N6 OD, N6 OS. BCDVA: 6/6 OD, 6/6 OS.	No recurrence of headache or ocular pain.
Day 27-46 (17/07/2025-05/08/2025)	Internal Medicine <ul style="list-style-type: none"> <i>Saptamritha loha</i> 2 HS after food Mixture of <i>Triphala choorna</i>, <i>Yastimadhu Choorna</i> and <i>ashwagandha</i> 1 tsf with Ghee and Honey HS After food. 	UADVA: 6/24p OD, 6/24p OS. PH: 6/9 OD, 6/9 OS. UANVA: N6 OD, N6 OS. BCDVA: 6/6 OD, 6/6 OS. Refraction: -2.75 D spherical with -0.5 D cylindrical at 170° OD. -2.75 D spherical OS.	Subjective improvement in all symptoms. And the patient was able to perform certain daily activities intermittently without spectacles.

RESULTS

The patient was followed up for a total duration of 46 days. At baseline, unaided distant visual acuity (UADVA) was 3/60 in both eyes, with pin-hole improvement to 6/12 and best corrected distant visual acuity (BCDVA) of 6/6 (partial). The patient had complaints of headache, mild ocular pain, and complete dependency on spectacles.

Following Ayurvedic intervention, gradual improvement in unaided distant visual acuity was observed. After *Nasya* and ocular procedures, UADVA improved sequentially to 6/60, 6/36, and finally 6/24 (partial) in both eyes. Pin-hole vision improved to 6/9 bilaterally at the final follow-up. Headache and ocular pain reduced progressively and did not recur after completion of treatment.

At the final follow-up, repeat refraction revealed a mild reduction in spherical and cylindrical power when compared to baseline values. The right eye showed a refractive status of -2.75 D spherical with -0.50 D cylindrical at 170° , while the left eye showed -2.75 D spherical power. Best corrected visual acuity was 6/6 in both eyes at the end of treatment. The patient reported improved visual comfort and a reduced dependency on spectacles for certain daily activities. No adverse effects were observed during the course of treatment.

DISCUSSION

Myopic astigmatism is a refractive error resulting in blurred and distorted vision due to improper refraction of light rays. In Ayurvedic literature, this condition can be correlated with *Vataja Prathama Patalagata Timira*, characterized by indistinct and distorted vision (*Vyavidhani Pashyati*), caused by vitiation of Vata dosha affecting the *Drishhti Mandala*. In the present case, prolonged visual strain, excessive screen exposure, and late-night sleeping acted as *nidana*, leading to Vata aggravation and functional disturbance of *Alochaka Pitta*.

The treatment was planned based on the underlying *samprapti*, with the primary objective of *Vata shamana*, improvement of ocular nourishment, and stabilization of visual function. *Deepana-Pachana* helped in correcting *agni* and preventing ama formation, thereby supporting effective action of subsequent therapies. *Nasya* with *Panchendriyavardhana Taila* acted on the organs above the clavicle, facilitating Vata pacification and improving sensory organ function. Local ocular therapies such as *Tarpana* and *Pindi* provided nourishment to ocular tissues and supported normal functioning of the first *patala*. Internal medications possessing *Chakshushya* and *Rasayana* properties further contributed to functional improvement.

The gradual improvement in unaided visual acuity, reduction in associated symptoms such as headache and ocular pain, and decreased dependency on spectacles

suggest a favorable response to the *samprapti*-oriented Ayurvedic intervention. This case highlights the potential supportive role of *Ayurveda* in the management of myopic astigmatism when approached through classical principles.

CONCLUSION

The present case demonstrates that a *samprapti*-oriented Ayurvedic approach may be beneficial in improving visual comfort and associated symptoms in myopic astigmatism. Ayurvedic interventions aimed at *Vata shamana*, ocular nourishment, and functional support of the *Drishhti Mandala* resulted in gradual improvement in unaided visual acuity, reduction of headache and ocular pain, and decreased dependency on spectacles. This case suggests that *Ayurveda* can play a supportive role in the management of refractive errors such as myopic astigmatism. However, further studies with larger sample sizes and longer follow-up are required to substantiate these findings.

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