

# Doora Drishti - A Paravartajanya Vikara (Hypermetropia) - A Case Study

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## Abstract

*Paravartajanya vikara* is the lack of ability of the eye to focus the rays of light on to the retina, one such *vikara* is *dooradrishti* where in light focuses behind the retina. Various modalities of Ayurvedic treatments are tried, tested and proved efficaciously in this single case study which is presented.

**Keywords:** *Paravarta, Refraction, Hypermetropia, Dooradrishti*

## Introduction

*Paravarta – refraction* is bending of light rays as they enters the eye at the anterior and posterior surfaces of the cornea and both surfaces of the lens so that they come into exact focus on the retina. The normal eye, known as an emmetropic eye can sufficiently refract light rays, from an object 6 m (20 ft.) away so that a clear image is focused on the retina . Many people, however, lack this ability because of *paravartajanya vikaras*. One of them is *dooradrishti*, hypermetropia or far-sightedness, also known as Hyperopia; the eyeball length is short relative to focusing power of the cornea and the lens, with patient experiencing difficulty in distance and near vision. Local, systemic, genetic and environmental factors play a major role in its pathogenesis.<sup>1</sup> In refraction, *vata* functions in the media of *kapha*. *Vata* and *kapha* vitiation as per Ayurvedic view point are the major contributing pathological factors in its manifestation.<sup>2</sup> Contrary to the available modern medical treatment/management regimen, i.e., spectacles, contact lens and Lasik, Ayurveda propounds a systematic systemic/holistic treatment approach in the treatment of hypermetropia. A patient of *hypermetropia*, who was treated with such a treatment protocol, is presented as a case study in this article.

## Case Report

### Basic Information of the Patient

- Age: 6 years
- Sex: Male
- Religion: Hindu
- Socioeconomic status: Rich class
- Father is a software engineer and currently working in Malaysia. Mother is well educated and is a homemaker.
- No History of consanguinity.

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### Pradhānavedanāvisēṣa (Chief Complaints)

Difficulty in distant and near vision since one year.

### Vartamānavyādhivṛtta (History of Present Illness)

Parents observed that the child always had a tendency to watch near objects very closely. They also found that distant objects were not identified by the kid from a distance. In this regard, he was taken to an eye hospital where he was advised to wear a spectacle, the power of which is given below. The bespectacled child was brought to the SSCASRH Eye OPD.

### Pūrvavyādhivṛtta (History of Past Illness)

Common cold and cough occasionally.

### Cikitsā Vṛttānta (Treatment History)

The child was prescribed with spectacles, medical records of which are not available.

### Kulaja Vṛttānta (Family History)

No family history and consanguinity found.

### Vaiyuktika Vṛttānta (Personal History)

#### Āharaja

Appetite – Regular, vegetarian dominant in *madhura rasa* (sweet diet).

#### Vihāraja

An active school-going kid, with a regular routine of diet,

#### Visual Acuity

Vision	Distant Vision without Spectacles	Distant Vision with Spectacles	Near Vision	Without Spectacles
Both Eyes	<6/60	6/6	Both eyes	N6
Right Eye	<6/60	6/6	Right eye	N6
Left Eye	<6/60	6/6	Left eye	N6

#### Intra Ocular Pressure (Icare tonometer)

- Right Eye: 14
- Left Eye: 14

#### Auto Refractometer Reading

Eye	SPH	CYL	Angle	Vn
Right Eye	+4.25	+0.25	120°	6/6
Left Eye	+4.50	-	-	6/6

sleep, bowel and activities.

### Examination

Vitals were normal. Cardiovascular system, respiratory system and per abdomen examinations had shown no deformity. *Prakṛti* (constitution) was *Vātākaphaja*.

### Aṣṭavidhaparīkṣā

*Nāḍī* (pulse) was *vātāja*. There was no complaint with regard to *mūtra* (urine). Frequency and color were normal. *Mala* (stool) was regular – once a day without any difficulty in initiation of the urge or completion. *Jihvā* (tongue) was *sāma* (coated suggestive of improper digestion). *Śabda* (speech) *prakṛitha* (normal speech). *sparśa* (touch) was dry (due to the climate). *Dṛk* (eyes) *prakṛitha* (normal without any squinting or haze). *Akṛti* (appearance) was *madhyama*.

### Eye Examination

- Eye Lids – Bilaterally symmetrical, no signs of spasm, edema, inflammation seen
- Eye Lashes – Bilaterally – evenly distributed, no signs of madarosis, blepharitis, entropion, ectropion, trichiasis seen
- Sclera – Bilaterally – white, clear
- Cornea – Bilaterally – transparent, no signs of corneal ulcer, keratoconus, opacities
- Anterior Chamber – Within normal limits
- Lens – Bilaterally – clear
- Posterior chamber and vitreous – Within normal limits
- Retina – Bilaterally – red glow present, optic disc and optic cup ratio – 1:3, within normal limits.

- **Differential Diagnosis:** *Dooradrishti* – Hypermetropia (*paravartajanya vikara*) – not able to see distant and near objects; corrected by convex glasses
- **Sameepadrishti – Myopia (Paravartajanya vikara):** Not able to visualize distant objects; corrected by concave glasses.
- **Diagnosis:** Hypermetropia – *Paravartajanya vikara*

### Treatment Protocol

A set of treatments, namely, eye exercises, *tarpana*, *pindi*, *shirodhara* were planned for 7 days once in every three months up to one year.

**Total Duration:** One year

**Tarpana:** *Tarpana* with *mahatriphala ghrita* and *jeevantyadi ghrita* for 7days.

**Eye Exercises:** 7days

**Pindi:** *Guduchi kumari* – 07days.

**Shirodhara:** *Triphaladi keram* and *brahmi tailam* – 7 days

**Eye Exercises:** Carried out regularly at home

### Internal Medicine

*Saptamritha Loha* – 1 BD with ½ tspoon *maha triphala ghrita*, 1 tspoon honey and ¼ tsp *triphala churna*.

### Discussion

Visual acuity through Snellen’s chart, both for near and distant vision, auto refraction followed by manual refraction were taken up as assessment criteria for assessing the efficacy of the treatment given.

### Visual Acuity

Distant Vision				
Eye	BT	1 <sup>st</sup> Follow Up	2 <sup>nd</sup> Follow Up	AT
Right	<6/60	6/36	6/12P	6/6
Left	<6/60	6/36	6/12P	6/6
Both Eyes	<6/60	6/36	6/12P	6/6
Near Vision				
Right	N <sub>6</sub>	N <sub>6</sub>	N <sub>6</sub>	N <sub>6</sub>
Left	N <sub>6</sub>	N <sub>6</sub>	N <sub>6</sub>	N <sub>6</sub>
Both Eyes	N <sub>6</sub>	N <sub>6</sub>	N <sub>6</sub>	N <sub>6</sub>

### Eye Exercises

Eye exercises help by elimination, stimulation and relaxation in the eye. Elimination is nothing but the removal of vitiated *doshas* (detoxification), especially *kapha*. Stimulation is to improve the circulatory system of the eye, for proper nourishment of various tissues in the eye. Relaxation helps in relieving the stress of extra and the intra-ocular muscles of the eye and thus mitigating the vitiated *vata dosha* of the eye.

#### Pindi

*Pindi* with *ghritakumari* helps to relax the eye, promotes equilibrium of *doshas* and also relieves *srotavarodha* (blocks).

#### Tarpana

*Tarpana* with *mahatriphala ghrita* and *jeevantyadi ghrita* not only helps to nourish the eye but also brings back the equilibrium of *doshas*. Both of the *ghritas* (ghee) are said to be excellent *chakshushya* (beneficial for eye) and also potent rejuvenators.

#### Shirodhara

*Shirodhara* with *triphaladi keram* and *brahmi tailam* acts as *chakshushya* (beneficial for eye) as well as *medhya* (brain tonic), completing the treatment protocol by nourishing not only the eye but also the nervous system with special emphasis to the optic tract.

Further on, internal medications – *saptamritha loha* – 1 BD with ½ tspoon *maha triphala ghrita*, 1 tspoon honey and ¼ tspoon *triphala churna* were advised to avoid any recurrence and also to sustain the improvement. These are considered *chakshushya* (beneficial for eye).

Eye exercises were advised to be continued for a minimum period of six months on daily basis.

## Auto Refraction Followed by Manual Correction

Distant Vision																
Eye	BT				1 <sup>st</sup> Follow Up				2 <sup>nd</sup> Follow Up				AT			
	SPH	CYL	AXIS	Vn	SPH	CYL	AXIS	Vn	SPH	CYL	AXIS	Vn	SPH	CYL	AXIS	Vn
Right	+4.25	+0.25	120°	6/6	+3	-	-	6/6	+1	-	-	6/6	+0.12	-	-	6/6
Left	+4.5	-	-	6/6	+3	-	-	6/6	+1	-	-	6/6	+0.12	-	-	6/6

### Conclusion

In this patient, the overall effect was found near 100%. Refractive error being a common ailment in the current generation, especially the school going kids, which brings down their morale as they have to wear spectacles, it is important to bring out a treatment protocol to bring down the dioptric power, to improve the visual acuity and to arrest further deterioration of vision. Improvement seen in this particular case of *sameepadrishti* (hypermetropia) supports the same. Going by the results of this case study, we can conclude that Ayurvedic *kriyakalpas* therapy along with appropriate internal medication can do a lot for the improvement in *paravarthajanya vikaras* (refractive errors).

**Conflicts of interest:** Nil

### References

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