

Review Article



ISSN: 3048-5630

“SHALAKYA TANTRA APPROACHES TO EYE DISORDERS IN SAMHITAS – A REVIEW”**Dr. Jalpa Gandhi¹****AFFILIATIONS:**

1. CEO, Ira Consultancy & Research Organisation, Bhosari, Pune, Maharashtra 411026

CORRESPONDENCE:

Dr. Jalpa Gandhi

EMAILID: ceo@icro.co.in

FUNDING INFORMATION:

Not Applicable

How to cite this article:

Jalpa Gandhi, “Shalakyia Tantra Approaches to Eye Disorders in Samhitas – A Review” Asian Journal of Ayurveda Siddhant. 2024;1(3):49-52.

ABSTRACT

Introduction: Shalakyia Tantra, one of the eight branches of Ayurveda, deals with diseases of the eye, ear, nose, and throat. Among these, eye disorders hold special emphasis in classical texts due to the critical role of vision in life. The Samhitas—*Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*—provide elaborate descriptions of ocular diseases, their etiopathogenesis, and management strategies. **Methods:** A comprehensive review of Ayurvedic classics with commentaries, as well as modern sources from PubMed, Scopus, and Web of Science, was performed. Inclusion criteria were Ayurvedic references to eye diseases and therapeutic measures, along with modern clinical and experimental studies evaluating Ayurvedic ophthalmic interventions. Exclusion criteria were anecdotal reports and non-peer-reviewed materials. **Results:** Over 70 types of *Netra Roga* are described in the Samhitas, categorized by anatomical location such as *Vartma* (eyelid), *Shukla* (sclera), *Krishna Mandala* (cornea/iris), and *Sarva Akshi Gata Roga* (whole eye). Etiological factors include *Dosha vitiation*, faulty diet, systemic diseases, and trauma. Management strategies involve general measures (*Snehana*, *Swedana*), specialized *Kriya Kalpas* (*Anjana*, *Aschyotana*, *Tarpana*, *Putapaka*, *Seka*), and surgical interventions. Modern studies validate several Ayurvedic therapies, especially *Tarpana* for dry eye and herbal formulations for conjunctivitis and keratitis. **Discussion:** Shalakyia Tantra offers a holistic framework for prevention and management of ocular disorders. While modern ophthalmology excels in microsurgery and pharmacology, Ayurvedic therapies emphasize tissue rejuvenation and systemic correction. Integration of both approaches can enhance outcomes in chronic and degenerative diseases. **Conclusion:** Shalakyia Tantra presents a sophisticated understanding of eye disorders with preventive, therapeutic, and surgical strategies. Future translational research and integrative models may help establish evidence-based Ayurvedic ophthalmology in global eye care.

KEYWORDS: Ayurveda, Kriya Kalpa, Netra Roga, Ophthalmology, Shalakyia Tantra



INTRODUCTION

The eye (*Netra*) is revered in Ayurveda as the most important sense organ, central to human perception and quality of life^[1]. Vision is classified as a primary sense (*Pratyaksha Pramana*), signifying its indispensability. Consequently, ancient scholars devoted great attention to the study, classification, and treatment of ocular disorders^[2-3].

Shalakya Tantra, one of the *Ashtanga Ayurveda*, specifically addresses diseases above the clavicle, with ophthalmology (*Netra Roga Vigyana*) forming a core focus^[4]. The *Samhitas* provide detailed accounts of more than 70 eye disorders, including their causation (*Nidana*), clinical features (*Lakshana*), pathogenesis (*Samprapti*), prognosis (*Sadhya-Asadhyata*), and therapeutic measures (*Chikitsa Sutra*). Management is multidimensional, encompassing preventive, medicinal, surgical, and rejuvenative approaches^[5-6]. Despite advancements in modern ophthalmology, chronic eye diseases like diabetic retinopathy, glaucoma, dry eye disease, and age-related degeneration pose challenges. This calls for exploring integrative approaches that combine ancient wisdom with modern science^[7-8].

This review aims to analyze Shalakya Tantra approaches to ocular disorders described in the *Samhitas* and evaluate their clinical relevance in the light of modern ophthalmology. The objectives are: to explore the classification and pathogenesis of *Netra Roga* in *Samhitas*, to analyze therapeutic measures, particularly *Kriya Kalpas*, to correlate Ayurvedic and modern perspectives for integrative eye care^[9-10].

MATERIALS AND METHODS

This review employed a narrative synthesis methodology. Sources included primary Ayurvedic classics (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Bhela Samhita*) with authoritative commentaries^[11]. Secondary sources included PubMed, Scopus, Web of Science, and Google Scholar databases, searched with terms: *Shalakya Tantra*, *Netra Roga*, *Ayurveda ophthalmology*, *Kriya Kalpa*^[12]. Inclusion criteria: (i) classical references on eye diseases, (ii) clinical and experimental studies on Ayurvedic ocular therapies, (iii) comparative studies with modern ophthalmology^[13-14]. Exclusion criteria: anecdotal reports, non-indexed sources, unpublished theses. Articles were analyzed

thematically^[15].

OBSERVATION AND RESULTS

1. Classification of *Netra Roga*

The *Samhitas* classify ocular disorders based on anatomical location:

- **Vartma Gata Roga (Eyelid disorders):** Includes *Kaphaja Vartma Shotha* (blepharitis), *Arbuda* (chalazion), *Pakshma Vridhi* (trichiasis).
- **Shukla Gata Roga (Scleral disorders):** Includes *Shukra Roga* (pterygium-like growths) and inflammatory conditions.
- **Krishna Mandala Gata Roga (Corneal/iris disorders):** Includes *Shukla Arma* (corneal opacity), *Adhimanta* (glaucoma-like condition).
- **Drishti Gata Roga (Vision disorders):** Includes *Timira* (early refractive errors), *Kacha* (cataract), *Linganashtha* (complete blindness).
- **Sarvagata Roga:** Affecting the whole eye, such as *Abhishyanda* (conjunctivitis).

This detailed classification emphasizes localized diagnosis, akin to modern anatomical and pathological categorization.

2. Etiopathogenesis (*Samprapti*)

The primary factors for *Netra Roga* include:

- **Dosha vitiation:** Pitta vitiation is central, producing heat, redness, and burning; Kapha causes heaviness and discharge; Vata induces dryness and vision loss.
- **Ahara (Diet):** Excessive intake of spicy, sour, or incompatible food is cited.
- **Vihara (Lifestyle):** Night waking, excessive exposure to dust, smoke, and eye strain are triggers.
- **Agantuja factors:** Trauma, foreign bodies, infections.
- **Systemic factors:** Diabetes (*Prameha*), hypertension, and malnutrition, showing Ayurveda's recognition of systemic links.

3. Therapeutic Principles (*Chikitsa Sutra*)

Management follows three approaches:

1. **Nidana Parivarjana:** Avoidance of causative factors.
2. **Samshodhana Chikitsa:** Purification through *Vamana*, *Virechana*, *Raktamokshana*.

3. **Samshamana Chikitsa:** Palliative therapy with herbal formulations and diet regulation.

4. **Kriya Kalpa – Specialized Ophthalmic Procedures**

The hallmark of Ayurvedic ophthalmology, *Kriya Kalpas*, are localized ocular therapies:

- **Anjana (Collyrium):** Medicated paste applied to eyelids for infections, redness, and vision strengthening.
- **Aschyotana (Eye drops):** Fresh medicated decoctions/oils dropped into eyes for conjunctivitis, keratitis.
- **Seka (Irrigation):** Continuous pouring of medicated liquid over eyes for burning and pain.
- **Tarpana (Retention therapy):** Retaining medicated ghee/oil over eyes; effective in dry eye, optic neuropathy.
- **Putapaka:** Similar to Tarpana but using concentrated herbal juices for nourishment.

Modern research validates *Tarpana* for dry eye disease, showing improvement in tear film stability and ocular comfort.

5. **Surgical Aspects in Shalakya Tantra**

Sushruta described surgical techniques like *Lekhana Karma* (scraping of growths like pterygium), *Arbuda Chedana* (chalazion excision), and *Shastra Karma* for cataract (couching method). While these techniques are obsolete today, they signify the advanced surgical knowledge of ancient times.

6. **Modern Research on Ayurvedic Ophthalmic Therapies**

Clinical and experimental studies report:

- *Triphala eye drops* beneficial in conjunctivitis and dry eye.
- *Yashtimadhu Ghrita Tarpana* effective in dry eye and computer vision syndrome.
- *Honey-based formulations* show antimicrobial and wound-healing effects in corneal ulcers.
- Experimental studies demonstrate antioxidant and neuroprotective effects of Rasayana drugs like *Amalaki*.

7. **Preventive and Rasayana Approaches**

Daily eye care is emphasized through *Netra Prakshalana* (washing with medicated decoctions), *Nasya* (nasal drops), and Rasayana like *Triphala Rasayana*. Lifestyle regulations (*Dinacharya*, *Ritucharya*) aim to preserve vision and delay degenerative changes. The Samhitas provide a

comprehensive classification, etiopathogenesis, and management of ocular disorders. The unique contribution of Shalakya Tantra is *Kriya Kalpa*, many of which find modern validation. Preventive approaches and Rasayana therapy emphasize the holistic care of eyes.

DISCUSSION

The review reveals that ancient Ayurvedic ophthalmology was highly advanced. The classification of *Netra Roga* based on anatomical divisions parallels modern ophthalmology's system-based approach. For example, *Timira-Kacha-Linganashta* progression resembles refractive error–cataract–blindness sequence. Similarly, *Adhimanta* correlates with glaucoma, described with features of severe pain, vision loss, and redness^[16].

Ayurveda vs. Modern Ophthalmology^[17]

While modern ophthalmology has made revolutionary progress in microsurgery, lasers, and pharmacological treatments, Ayurveda emphasizes local ocular rejuvenation and systemic correction of *Doshas*. For instance, modern medicine treats dry eye with artificial tears, while Ayurveda addresses it with *Tarpana*, which nourishes ocular tissues and improves tear stability.

Herbal drugs like *Triphala*, *Yashtimadhu*, and *Haridra* demonstrate antimicrobial, anti-inflammatory, and antioxidant properties, validated in experimental models. However, large-scale clinical trials are limited.

Ethical and Preventive Dimensions^[18]

Samhitas emphasize preventive ophthalmology through diet, lifestyle, and eye care regimens, aligning with modern public health approaches in reducing avoidable blindness. The stress on *Rasayana* supports ocular longevity, akin to modern emphasis on antioxidants and neuroprotective agents.

Research Gaps^[19]

Despite promising evidence, gaps include:

- Limited randomized clinical trials on *Kriya Kalpas*.
- Lack of standardized formulations and dosages.
- Minimal integration of Ayurvedic ophthalmology into mainstream care.

Future Prospects^[20]

Integrating validated Ayurvedic therapies with modern ophthalmology could benefit conditions with limited solutions, such as chronic dry eye, glaucoma,



and retinitis pigmentosa. Simulation-based models for teaching ancient procedures could preserve traditional knowledge.

CONCLUSION

Shalakya Tantra, as elaborated in the Samhitas, presents a comprehensive system for understanding and managing eye disorders. With over 70 ocular conditions categorized anatomically and pathogenetically, Ayurveda demonstrates a nuanced grasp of ophthalmology. The therapeutic approaches encompass general measures, systemic correction, and unique ocular procedures such as *Kriya Kalpas* (Anjana, Aschyotana, Tarpana, Seka, Putapaka), which remain clinically relevant even today.

Modern research validates several aspects of these therapies, particularly in dry eye disease, conjunctivitis, and ocular surface disorders. Herbal formulations like *Triphala* and procedures like *Tarpana* have demonstrated promising results in improving tear film stability and reducing inflammation. The preventive dimension, with emphasis on daily regimens, dietary guidelines, and Rasayana therapy, highlights Ayurveda's strength in promoting ocular health and delaying degenerative diseases.

However, significant gaps remain in terms of large-scale clinical validation, standardization of formulations, and translational research. Bridging these gaps through well-designed trials and interdisciplinary collaborations could establish evidence-based Ayurvedic ophthalmology.

In conclusion, Shalakya Tantra provides not only historical insights but also practical therapeutic strategies for ocular healthcare. Integration of these principles with modern ophthalmology can enrich patient care, particularly for chronic and degenerative conditions where modern options are limited. A balanced, evidence-driven approach may pave the way for Ayurveda's meaningful contribution to global ophthalmology.

REFERENCES

1. Sushruta. *Sushruta Samhita*, Nidanasthana, Uttaratantra. With Dalhana commentary. Chaukhambha Sanskrit Sansthan, Varanasi; 2018.
2. Charaka. *Charaka Samhita*, Chikitsasthana. With Chakrapani commentary. Chaukhambha Bharati Academy, Varanasi; 2017.
3. Vagbhata. *Ashtanga Hridaya*. With Arunadatta commentary. Chaukhambha Orientalia, Varanasi; 2016.
4. Bhela. *Bhela Samhita*. Chaukhambha Visvabharati, Varanasi; 2015.
5. Sharma PV. *Dravyaguna Vijnana*. Chaukhambha Bharati Academy, Varanasi; 2014.
6. Singh RH. *Foundations of Ayurveda*. Chaukhambha Orientalia, Varanasi; 2008.
7. Srikanth N, et al. Clinical evaluation of Triphala eye drops in chronic conjunctivitis. *J Res Ayurveda Siddha*. 1998;19(3-4):1–10.
8. Dhiman KS. Role of Anjana and Aschyotana in Netra Roga. *AYU*. 2011;32(1):66–70.
9. Sharma N, et al. Efficacy of Yashtimadhu Ghrita Tarpana in computer vision syndrome. *Int J Ayurveda Res*. 2010;1(3):150–4.
10. Biswas NR, et al. Evaluation of Triphala in ocular diseases. *Indian J Ophthalmol*. 2001;49(1):23–6.
11. Mishra A, et al. Effect of Tarpana with ghee preparations in dry eye disease. *AYU*. 2015;36(2):182–8.
12. Agarwal PK, et al. Antimicrobial activity of honey in corneal ulcers. *Cornea*. 2014;33(9):972–8.
13. Kumar S, et al. Antioxidant potential of Amalaki Rasayana in ocular health. *Phytother Res*. 2012;26(2):238–44.
14. Singh SK, et al. Rasayana therapy in prevention of age-related eye diseases. *AYU*. 2013;34(2):143–8.
15. Rajasekaran S, et al. Ophthalmic potential of Ayurveda: A review. *J Ayurveda Integr Med*. 2018;9(3):185–92.
16. Choudhary A, et al. Ayurveda management of Abhishyanda: A review. *AYU*. 2017;38(1-2):21–6.
17. WHO. *World Report on Vision*. Geneva: World Health Organization; 2019.
18. Kirtane MV. Shalakya Tantra in historical perspective. *Anc Sci Life*. 1991;10(3):174–80.
19. Patwardhan B, et al. Ayurveda and integrative ophthalmology. *Evid Based Complement Alternat Med*. 2015;2015:1–8.
20. Gupta A, et al. Role of Ayurvedic ocular therapies in dry eye disease. *J Ayurveda Res*. 2020;4(2):77–84.