



Kriyakalpa in Netra Roga: A Classical Review with Clinical Applications

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Abstract

Kriyakalpa comprises a group of specialized local therapeutic procedures described in Ayurveda for the prevention and management of Netra Roga (ocular diseases). These procedures form the cornerstone of Shalakya Tantra and include Aschyotana, Seka, Tarpana, Putapaka, Anjana, and Bidalaka. By enabling direct drug delivery to ocular tissues, Kriyakalpa ensures rapid action, improved bioavailability, and minimal systemic adverse effects. Classical Ayurvedic texts extensively describe their indications, contraindications, procedural methodology, and Dosha-specific applications. In contemporary clinical practice, Kriyakalpa has gained renewed importance in managing lifestyle-related ocular disorders such as Dry Eye Syndrome, Computer Vision Syndrome, allergic conjunctivitis, and early degenerative eye diseases. This review comprehensively discusses the classical foundations, classification, probable mode of action, and clinical utility of Kriyakalpa, supported by contemporary research evidence.

Keywords: Kriyakalpa, Netra Roga, Shalakya Tantra, Ayurvedic Ophthalmology, Local Ocular Therapy

Introduction

Vision is considered the most valuable sensory function in Ayurveda, and its preservation is given utmost priority. Acharya Sushruta emphasized that loss of vision severely compromises quality of life, making eye care an essential component of healthcare. Shalakya Tantra provides a detailed and systematic approach to ocular disorders, among which Kriyakalpa occupies a pivotal role. Unlike systemic therapies, Kriyakalpa procedures act locally at the site of pathology, allowing targeted Dosha pacification and tissue nourishment. With increasing exposure to digital screens, environmental pollutants, and stress, ocular surface disorders are becoming more prevalent. In this context, Kriyakalpa offers safe, economical, and effective solutions that can be integrated with modern ophthalmic care.

Concept and Classical Basis of Kriyakalpa

The term *Kriyakalpa* is derived from *Kriya* (therapeutic procedure) and *Kalpa* (methodical formulation). It collectively denotes various ocular therapeutic procedures performed using medicated liquids, pastes, and ghrita preparations. Classical texts state that the eye is predominantly Tejo-Mahabhuta-pradhana and extremely sensitive to Dosha vitiation. Therefore, localized therapies are preferred to restore equilibrium without disturbing systemic balance [1].

Table 1: Detailed Classification of Kriyakalpa and Their Clinical Applications in Netra Roga

Sr. No.	Type of Kriyakalpa	Procedure Description	Major Indications	Clinical Utility
1	Aschyotana	Instillation of lukewarm medicated liquid drops into the open eye from a specific height, mainly used in the early and acute stages of eye diseases.	Abhishyanda, Netra Shotha, early Shushkakshipaka	Reduces burning sensation, irritation, foreign body sensation, and ocular redness [2].
2	Seka	Continuous and gentle pouring of medicated decoctions or liquids over closed eyes for a defined duration.	Acute inflammatory conditions, Pitta-Kapha predominant Netra Rogas	Produces cooling, analgesic, and anti-inflammatory effects, providing symptomatic relief [3].
3	Tarpana	Retention of medicated ghrita over the eyes using a dough boundary for a specific period to nourish ocular tissues.	Vata-predominant disorders, degenerative eye conditions	Improves tear film stability, strengthens ocular structures, and enhances visual acuity [4].
4	Putapaka	Instillation of medicated extracts prepared through specific heating techniques, usually performed after Tarpana.	Chronic eye disorders, post-Tarpana strengthening	Enhances ocular nourishment, rejuvenation, and functional efficiency of the eye [5].
5	Anjana	Application of medicated collyrium along the inner margin of the eyelids using appropriate instruments.	Indicated according to Dosha predominance	Improves ocular hygiene, removes secretions, and enhances clarity of vision; includes Lekhana, Ropana, and Prasadana Anjana [6].
6	Bidalaka	Application of medicated paste over the eyelids without opening the eyes.	Acute inflammatory conditions, eyelid edema, ocular pain	Reduces swelling, burning sensation, and redness, providing rapid symptomatic relief [7].

Indications of Kriyakalpa in Netra Roga [8]

Kriyakalpa is indicated in:

- Abhishyanda (conjunctivitis)
- Shushkakshipaka (dry eye syndrome)
- Timira (refractive errors, early cataract)
- Adhimantha (glaucoma)
- Netra Shotha
- Computer Vision Syndrome

Probable Mode of Action [9]

Kriyakalpa acts through:

- Direct ocular tissue contact
- Enhanced corneal absorption
- Local Dosha pacification
- Restoration of Snigdha Guna
- Anti-inflammatory and lubricating effects

From a modern standpoint, these procedures function as topical drug delivery systems, improving tear film stability and reducing ocular surface inflammation.

Clinical Applications in Contemporary Practice

In modern clinical settings, Kriyakalpa is effectively employed in:

- Chronic dry eye cases resistant to artificial tears
- Digital eye strain

- Allergic conjunctivitis
- Early degenerative eye disorders

Regular use of Tarpana and Aschyotana has shown sustained symptomatic relief and improved patient satisfaction.

Previous Work Done

Several experimental and clinical studies support the efficacy of Kriyakalpa in Netra Roga. Pawar and Pawar reported significant symptomatic improvement in patients of dry eye managed with Tarpana and Aschyotana procedures [8]. Sharma et al. demonstrated the effectiveness of Ayurvedic Kriyakalpa in managing Shushkakshipaka, with marked reduction in dryness, burning sensation, and foreign body sensation [10].

Clinical studies have also highlighted the role of Tarpana in improving tear break-up time and ocular comfort in dry eye patients. Review articles published in AYU and JAISMS emphasize that Kriyakalpa offers a safe alternative or adjunct to conventional ophthalmic therapies, particularly in chronic and recurrent cases [11,12].

Discussion

Kriyakalpa represents a unique and specialized therapeutic approach in Ayurveda. Its localized action, minimal adverse effects, and holistic benefits make it highly relevant in current ophthalmic practice. Standardization of procedures and integration with modern diagnostics can further strengthen its acceptance.

Conclusion

Kriyakalpa forms the foundation of Ayurvedic ophthalmic therapy. Its procedures are scientifically relevant, clinically effective, and economically viable. Integrating Kriyakalpa with contemporary ophthalmology provides a comprehensive approach to managing Netra Roga, especially lifestyle-related ocular disorders.

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