



Clinical Significance And Biological Mechanism Of “Netra Kriya Kalpa In Netrarogas”

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Abstract

Ayurveda is conventional way of health management which prevents and treats many diseases. Ayurveda described approaches of healthy living and suggests approaches for restoring health of sense organs. As per Ayurveda eyes is most vital organs amongst the other sense organs. Eye as sense organ of body considered as most precious gift of god. The diseases related to the organs of Urdhwajatrugata sthana are described as Urdhwajatrugata vyadhis which includes diseases of ear, eyes and nose, etc. The diseases of eye described as Netra-Roga and Ayurveda suggested many options for curing Netra-Roga and Kriyakalpa is one of them. Netra Kriyakalpa is therapeutic process for curing Netra rogas. Netra Kriyakalpa utilizes various cleaning and medicinal procedures for eye to maintain normal health status of eye. Netra Kriyakalpa helps to prevents and treat diseases of eye and can be practiced in routine life. Present article explored clinical significance and biological mechanism of “Netea Kriya Kalpa”.

Keywords: Ayurveda, Netra-Roga, Kriyakalpa, Urdhwajatrugata vyadhis

1. Introduction

The ancient sage presented various principles and these all principles and theories forms basis of Ayurveda science. Ayurveda focuses towards the curing of disease including Urdhawajatrugata vyadis which are the diseases of Urdhawajatrugata Sthana mainly related with sense organs. The disease of eye, ear and nose, etc. are comes under the heading of Urdhawajatrugata vyadis, amongst them diseases of eye are considered very sensitive pathological conditions. (1-4) Ayurveda advocated Kriyakalpa as therapeutic process for Netra roga which not only prevent diseases of eye but also helps to treat eye disorders, Kriyakalpa if performed in routine practice then it helps to retain normal health status of eye and promote strength of eye. Ayurvedic samhitas

also described local treatment for Netraroga and Kriyakalpa is amongst them. The specific drugs used for particular procedure of Kriyakalpa which is performed as Bahyaparimarjan Chikitsa for Netraroga. (3-6)

2. Advantages of Kriyakalpa in Netraroga:

Quick relief due to the fast absorption of drug Easy and simple procedure Less invasive and non-surgical approach No complication and side effects Local effects of therapy for prolong period of time Economic and wide range of options for different types of diseases. Kriyakalpa is basic therapeutic procedure for ophthalmic disorders, as a cleaning measure it offers several advantages. There are various types of Kiyakalpas procedures as mentioned as fallows

Tarpana: Tarpana gives nourishment to eyes & helps to cures disease of Vata & Pitta vitiation. Medicated Ghee, Majja and Vasa, etc. are kept around the eyes for particular period of time.

Putapaka: The Putapaka differ with Tarpana in reference to the preparation of medicines. The Swarasa extracted by Putapaka Vidhi and used that after, there are differenttypes of Putapaka namely; Snehana, Ropana & Lekhana.

Seka: Seka is used for acute problem of eye, in this process medicine poured on closed eyes from the heights of four Angul continuously for a particular time period. Aschyotana: Aschyotana means instillation of drops of medicine into the eyes from the two Angul heights; indicated for many eye diseases including acute as well as chronic conditions.

Pindi: Pindi involves application of drug paste over the eyelids with the help of cotton or Doshghna leaves. Pindi used in conditions like; Adhimantha, Netrabhishyanda, Sotha, Kaphaja Netraroga and Netrakandu, etc.

Bidalaka: Bidalaka involves application of medicated paste over the surface of eyes mainly on eyelids. Bidalaka are of three types; Uttam, Madhyam & Heena on the basis of thickness of paste of medicines. Bidalaka helps to relieves discharge, burning sensation, tearing, redness, itching and swelling, etc.

Anjana: Anjana involves application of drug into the internal surface of lid margin (from Kaninika sandhi to Apanga sandhi) using Anjana Shalaka. Anjana are different types according to action of drugs; Lekhanajana, Ropananjana and Prasadanjana. (6-9) → Lekhanajana is indicated for Kapha predominant disease. → Ropananjana gives strength to the eyes. → Prasadanjana is used for soothing and calming effects.

3. Mode of Action of Kriya Kalpa In

Tarpana Ghee is used as medicine in the form of suspension thus contact time of drug is more, due to which more drugs absorbed. The lipophilic property of formulation helps to cross corneal epithelium barrier and exerts therapeutic responses.

Putpaka possess same mechanism as like Tarpana but absorption is more since it is suspension of fat and water contents thus offers lipophilic as well as hydrophilic properties and imparts optimum penetration and absorption.

In Seka medicine is absorbed via skin thus offers local action and delayed response. In Aschyotana the quick response observed since medicated drops are put into eye directly, but contact time is less and drug get diluted with tears.

In Anjana the bioavailability of drug increases since medicine applied to the internal surface of lid margin due to which overall tissue contact time increases.

In Pindi medicated paste absorbed through skin and heat of poultice increases local temperature which causes vasodilatation and increases penetration as well as absorption of drugs.

In Bidalaka medicine is absorbed through skin and mechanical effect of procedure causes vasodilatation, medication reaches to conjunctival sac, inner & outer canthus, blood vessels and offers local as well as systemic relief. (9-11)

4. Modern Perspectives

Drugs applied on mucous membrane of conjunctiva absorbed readily since mucous membrane shows good absorption pattern. Bidalaka & Pindi offers therapeutic action by virtue of dermis which is freely permeable to drugs. The lipophilic behavior of some drug helps in their absorption through lipophilic membrane. Drugs in the form of solution get dissolved totally and offer quick response and bio-availability but tissue contact time reduces as observed in Aschyotana & Seka.

Anjana offers good bioavailability of drugs due to the direct tissue contact. The absorption and bioavailability of drugs also increases in Tarpana & Putapaka since drug particles not leave quickly and remain in contact with tissue for longer period of time. The delayed and prolong action gives better local response in acute as well as chronic condition. The lipophilic & hydrophilic drug used in some procedure can penetrate all the layers of cornea. The absorption of drug also depends upon vascularity of absorbing surface, in Poorvakarma of Kriyakalpa the procedures like Snehana and swedana performed which increases blood flow and vascularity of absorbing surface thus water soluble drugs absorbed easily via vessel wall. Considering these all aspects when blood vessels are not involved in disease then Aschyotana & Seka can be performed. Tarpana & Aschyotana with Ghrita used for Vata- Pitta predominant diseases. Fat soluble substances mainly used in Tarpana & Putapaka which kept drug for longer duration.

5. Therapeutic Uses of Netra Kriya Kalpa:

Provides nourishment to the eyes thus empower eye strength Cleans eye and prevent dryness Cures vata – pitta vikara of eye Netra Kriya Kalpa used for Rukshta, Tamiyati, Sushka-netra, Pakshmpat and Ati-Rogunta. Pindi is used in Abhishyandha and Adhimanth. Netra Kriya Kalpa improves vision and prevents common infections of eye.

6. Conclusion

Kriyakalpas is Ayurvedic ophthalmology which offers various route of drug administration thus provides variable pattern of drug absorption and bio-availability. The selection of drug in Kriyakalpas merely depends upon the procedure of Kriyakalpa and involvement of Doshas in disease. Kriya kalpa is considered as important therapeutic procedure for Netra roga since it offers several advantages such as quick action, fast and prolong absorption of drug, easy to perform, non surgical approach and no severe complication. Kriya kalpa in Netra roga offers local therapeutic response for prolong period of time and can be used for treating different types of eye problems.

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