

**STUDY OF COMMON KRIYAKALPA (LOCAL APPLICATION OF MEDICAMENT)  
REMEDIES USEFUL IN CURABLE VATAJ- NETRAROGA: REVIEW ARTICLE.**Vd. Jyoti R. Dakhore\*<sup>1</sup>, Vd. Pradnya R. Deshpande<sup>2</sup> and Vd. Suvarna R. Sonawane<sup>3</sup><sup>1</sup> Associate Professor, Dept. of Shalakyatantra, Vidarbha Ayurved college, Amaravati.<sup>2</sup> Assistant Professor, Dept. of Rachana Sharir, Govt. Ayurved College, Nanded, Maharashtra.<sup>3</sup> Assistant Professor, Dept. of Dravyaguna, PMT's Ayurved College, Shevgaon, Ahmednagar.**\*Correspondence for Author: Vd. Jyoti R. Dakhore**

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**ABSTRACT**

Eye is one of the complex organs, any disorder in its small part causes serious problem. In the modern science, eye diseases are classified according to parts, visual disorders and blindness. Ophthalmology is exclusively mentioned in Ayurveda by *Acharya Sushruta*. Ayurveda classified *Netraroga* (ophthalmic diseases) according to *Dosha* (basic constituents of body), as *doshaprakopa* (vitiation of *dosha*) is main etiological factor. *Acharya Sushruta* mentioned 10 *vatajnetraroga* (occur due to vitiation of *vata*), of which only five are *sadhya* i.e. having good prognosis. With the medication, *Kriyakalpa* are special treatment of choice in *vatajnetraroga*. Also *vatajnetraroga* can be prevented with the use of *kriyakalpa*. Most of ingredients essential for preparation of *kriyakalpa* are rare, not easily available or not available throughout year. Much of them are not cost effective. According to Ayurveda, drug efficacy is depend on *Rasa-virya-vipaka-doshaghata* etc. characteristics of drug. The aim of present study is to search and select common drugs which are potent, easily available, cost effective and useful in almost all *kriyakalpas* (local treatment as per Ayurveda).

**KEYWORDS:** *Cost effective, Doshaprakopa, Kriyakalpa, Sadhya, Vataj Netraroga.***INTRODUCTION**

Eyes are most important and precious gift we have as we have blessed with proper eyesight. Eyes are complex organ, with many parts that must work together to produce clear vision. Sight more than any other senses, help us navigate the world around us. According to researchers, number of people affected with eye disease will be doubled in next 3 decades. So it is important to take care of eye-sight.

*Acharya Sushruta* opines that the science of ophthalmology is as vast and deep as the sea and hence emphasises the necessity of intensive study and work on subject.<sup>[1]</sup> Ayurveda describe eye in the view of '*dnyanendriya*' which is site of '*aalochak pitta*'.<sup>[2]</sup> *Acharya Sushruta* in '*uttar-tantra*' exclusively describes anatomy and diseases of the eye with preventive and curative measures. *Sushruta* classified *netraroga* from different point of view, of which one is *doshabheda*.<sup>[3]</sup> Being more important, *vatajnetraroga* are nomenclated as '*Rogasamuharaj*'.

To achieve higher concentration at the site of lesion, topical or local application is the main route of administration of drug in eye diseases. Also in Ayurveda, treatment of *netraroga* involve chief effective local therapy along with medicinal treatment termed as

*Kriyakalp*. As *Acharya Sushruta* assumed '*doshaprakopa*' (vitiation of *dosha*) is prime etiological factor, *kriyakalpa* therapy is effective through its *doshghna* (purificative) and *chakshushya* (rejuvenating) properties. Seven *kriyakalpas* i. e. *tarpan*, *putpak*, *parishek*, *aashchyotan*, *anjan*, *bidalak*, *pindikaare* mentioned thoroughly in the treatment of *vatajnetraroga*. Also they help to prevent eye diseases and improve vision.<sup>[4]</sup>

For the preparation of *kriyakalpas*, *Acharyas* mention 199 drugs. Most of them are not available in today's era or throughout year. Some of the drugs available but being expensive, it is not possible to use for routine treatment. 'Highly effective, easily available drug' is basic need to formulate the *kriyakalpa* compound. The present work is done to search such cost effective drugs. Selection and rejection criteria applied for the purpose.

**DISCUSSION**

Eyes are small compared with most organs, but their structure is incredibly complex. Sight and vision are important because they allow us to connect with our surrounding, help us safe and maintain sharpness of our mind. In today era life style also have impact on eye causing eye fatigue.

Discriptive knowledge of *Netraroga* is mentioned in *Uttar-tantra* of *Sushruta Samhita*. It deals with entire study of structure and clinical aspect of the eye. According to Ayurveda, *rupgrahan* (vision and eye sight) is produced due to presence of *Aalochakpitta* (factor responsible for vision).<sup>[5]</sup> Vitiating of is one of the important predisposing factor in the pathogenesis of ophthalmic diseases. *Acharya Sushruta* mention importance of *ahar-vihar* in the process of vitiating.<sup>[4]</sup> Discharge, watering, itching, pain, redness are considered as '*poorvarupa*' (early s/s of disease) and suggested to treat in this condition for prevention of '*rupavastha*' (disease related s/s).<sup>[4]</sup> General treatment include '*nidan-parivarjan*' (avoidance of vitiating factor) and '*shaman*' (suppression) or '*shodhan*' (purification) of *doshas*.<sup>[4]</sup> Due to vitiating of *vatadosha*, 10 diseases develop. Out of them 6 are considered to be treatable. They are as follows-<sup>[6]</sup>

1. *Vatajkaca*
2. *Anyatovata*
3. *Sushkakshipaka*
4. *Vatajadhimantha*
5. *Vatajabhishyandhya*
6. *Vataparay*

In the treatment of *vatajnetraroga*, there is '*kriyakalpachikitsa*' having great importance. *Kriyakalpas* are as follows:

1. *Tarpan*<sup>[7]</sup> – Lukewarm medicated ghee is made to stay stagnant in eyes for speculated time in specific formed frame.
2. *Putpaka*<sup>[8]</sup> – Bolus is made with *putpakkriya* and put into eyes similar to *tarpana*.
3. *Netra-anjana*<sup>[9]</sup> – With the help of *shalaka* (applicator) medicated collyrium is applied for specific time.
4. *Aashchyotana*<sup>[10]</sup> – Eye drop application at inner canthus from 2 angular of height.
5. *Seka*<sup>[10]</sup> – More powerful than *aashchyotana*.
6. *Bidalaka*<sup>[11]</sup> – Local application of paste of herb on eyelid when the eye is closed.
7. *Pindika*<sup>[11]</sup> – Paste of herb applied over *kawalika* (bandage) and put over closed eye.

For the desired effect i.e. *doshashaman* or *shodhan*, preparation should be proper with definite drugs. About 199 drugs suggested for *kriyakalpas* as follows:

#### Drugs for *Tarpana*<sup>[12]</sup>

Kasmarya, Madhuka, Kumuda, Utpala, Erand, Kushtha, Brahati, Tamal, Jatamansi, Sariva, Dabhamul, Kaseru, Milk, Ghee, shatavha, Nalad, Kakoli2, Saral, Pippali, Chandan, Ushir, Sharkara, Kukutmasa, Butter, Ananta,

Drugs which are found to be common in 6 *kriyakalpas*

No	Drug	T	P-1	A-1	P-2	A-2	B	P-3
1	Pippali	+	+	+	+	+	+	-

T: *Tarpan* P-1: *Putpaka* A-1: *Aashchyotana* A-2: *Anjan* P-2: *Parisheka* P-3: *Pindika* B: *Bidalaka*.

Jivak, Rhushabhak, Meda, Mahameda, Mugdaparni, Mashparni, Jivanti, Bilwa, Shyonak, Agnimantha, Patala, Head of black serpent.

#### Drugs for *Putpaka*<sup>[13]</sup>

Juice obtained from cooked liver of goat, camel and boar, Pippali, Saidhav, Honey, Ghee, Fat.

#### Drugs for *Aashchyotana*<sup>[14]</sup>

Daruharidra, Water, Honey, Hribera, Tagar, Mangishta, Udumber, Goat's milk, Bilwa, Shyonak, Brahati, Agnimantha, Patala, Bilwa, Kasmarya, Erand, Shigru, Lodhra, Nimba, Hirada, Bibhitak, Aamalaki, Breast milk, Shaliparni, Prushniparni, Pippali, Yashtimadhu, Marich, Manashila, Sop, Pushpanjan, Sourgrul, Anshumati, Kantakari, Sura/Dhanyamla, Kalanusuri, Sariva, Laksha, Mrudvika, Chandan, Korantaka,.

#### Drugs for *Parisheka*<sup>[15]</sup>

Goat, Erand, Saidhav, Kantakari, Water, Khasa, Pippali, Yashtimadhu, Honey, Ghee, Lodhra, Prapaundrika, Daruharidra, Nagarmotha, Chandan, Brahati, Shigru.

#### Drugs for *Anjana*<sup>[16]</sup>

Yashtimadhu, Hirada, Haritaki, Devdaru, Goat's milk, Brahati, Shigru, Erand, Saidhav, Suvarnagairik, Pippali, Shunthi, Snehanjana, Rasanjana, Cow's milk, fat, Silver vessel, mastu, Kantakari, Sita, Tamrabhasma, Sphatika, Shankhanabhi, Sugarcane, Til, Breast milk, Black serpent, Rain water, Draksha, Prapaundrika, Darvi, Pushpanjan, Marich, Matulinga juice, Sariyaka, Kalanusuri, Sariva, Human hair, Ghee, Iron Vessel, Bibhitak, Manashila, Kushta, Vacha, Tuttha, Makshika, Lodhra, Strotonjana, Beewax, Honey, Meat juice, Kusha, Chameli, Meshashringa, Sauviranjan, Palash.

#### Drugs for *bidalaka*

Yashtimadhu, Gairik, Saidhav, Darvi, Tarksha, Water, Chandan, Marich, Patra, Ela, Rasanjana, Tagar, Tuttha, Haritaki, Kushta, Shatapushpa, Pippali, Utpala, Musta, Agar, Honey, Bibhitak, Aamalaki, Saileyaka, Sunthi, Chitrak, Dadima, Vacha, Nimba, Haridra, Lodhra, Beevax, Iron vessel, Ghee, Khatika, Bhumyamlaki.

#### Drugs for *Pindilika*

Eranda, Goat milk, Yava.

Above mentioned drugs are used for preparation of *kriyakalpa*. It was observed that some are common drugs. Some are not available easily. Some are very costly and some are available, but not throughout year. So with the observation of above enlisted drugs, following common drugs selected as follows:

Drugs which are found to be common in 5 *kriyakalpas*

No	Drug	T	P-1	A-1	p-2	A-2	B	P-3
1	Erand	+	-	+	+	+	-	+
2	Saindhav	-	+	+	+	+	+	-
3	Yashtimadhu	+	-	+	+	+	+	-
4	Ghee	+	+	-	+	+	+	-
5	Honey	-	+	+	+	+	+	-
6	Tagar	-	+	+	+	+	+	-

Drugs which are found to be common in 4 *kriyakalpas*

No	Drug	T	P-1	A-1	p-2	A-2	B	P-3
1	Water	-	-	+	+	+	+	-
2	Sariva	+	-	+	-	+	+	-
3	Chandan	+	-	+	+	-	+	-
4	Prapaundrik	+	-	+	+	+	-	-
5	Brahati	+	-	+	+	+	-	-
6	Goat's milk	-	-	+	+	+	-	+
7	Lodhra	-	-	+	+	+	+	-
8	Daruharidra	-	-	+	+	+	+	-

Drugs which are found to be common in 3 *kriyakalpas*

No	Drug	T	P-1	A-1	p-2	A-2	B	P-3
1	Kantakari	-	-	+	+	+	-	-
2	Bala	+	-	+	+	-	-	-
3	Shigru	-	-	+	+	+	-	-
4	Haritaki	-	-	+	-	+	+	-
5	Bibhitak	-	-	+	-	+	+	-
6	Maricha	-	-	+	-	+	+	-
7	Kushtha	+	-	-	-	+	+	-
8	Shatavha	+	-	+	-	-	+	-

Drugs which are found to be common in 2 *kriyakalpas*

No.	Drug	T	P1	A-1	P-2	A-2	B	P-3
1	Shunthi, Rasanjana, Vacha, Tuttha, Gairika, Beevax, Iron	-	-	-	-	+	+	-
2	Aamalaki, Nimba	-	-	+	-	-	+	-
3	Devdaru, Cow's milk	+	-	-	-	+	-	-
4	Manashila, Draksha, Breast milk	-	-	+	-	+	-	-
5	Bilva, Shyonak, Agnimanth, Patala, Kashmarya	+	-	+	-	-	-	-
6	Fat	-	+	-	-	+	-	-
7	Tamalpatra	+	-	-	-	-	+	-

From this summary, it has been observed that there are 23 drugs commonly used in 3 or more *kriyakalpas*. On the basis of '*doshaghnata*' (ability to suppress vitiated *dosha*) they are grouped as follows:

1. *Tridoshaghna*- Saindhav, Honey, Sariva, Haritaki, Bibhitak, water.
2. *Vatakaphaghna* – Pippali, Erand, Shatavha, Bruhati, Kantakari, Shigru, Marich, kushta, Tagar.
3. *Vatapittaghna* – Madhuyashti, Ghee, Goat's milk.

For these 23 drugs, selection and rejection criteria was applied to each drug.

Selection / Rejection of the drugs from *tridoshaghna* group

Drug	Latin name	Selected/rejected	Selection criteria	Rejection criteria
Saindhav		Rejected	-----	Low efficacy
Bibhitak	<i>Termenalia bellerica</i>	Rejected	-----	Low efficacy

Selection and rejection criteria – The drugs are selected on the basis of their *guna, roghagnata* (ability to break pathogenesis), availability, efficacy and cost whereas those drugs which are comparatively less effective, not easily available, not specific *roghagnata*, confusion in differentiating from each other and costly were rejected.

Out of these 23 drugs, honey, ghrut, milk and water being essential ingredients or good vehicles selected for preparation of *kriyakalpas*.

Sariva	<i>Hemedesmus indicus</i>	Selected	<i>Shothahar, Chakshushya, Vedanasthapak. (28)</i>	-----
Haritaki	<i>Terminalia chebula</i>	Selected	<i>Shothahar, Chakshushya, Vedanasthapak (29)</i>	-----
Honey	Mel	Selected	<i>Ropak, Act as vehicle.(30)</i>	-----
Water	H2o	Selected	Act as vehicle.	

Selection / Rejection of the drugs from *Vatakaphaghna* group

Drug	Latin name	Selected/rejected	Selection criteria	Rejection criteria
Pippali	<i>Piper longum</i>	Selected	Highly effective, Useful in 6 <i>kriyakalpas</i> , easily available	-----
Erand	<i>Reciniscommunis</i>	Selected		-----
Shatavha	<i>Anethumsowa</i>	Selected	<i>Vedanasthapak(31)</i>	-----
Bruhathi	<i>Solanumindicum</i>	Rejected	-----	Less effective
Kantakari		Rejected	-----	Less effective
Shigru	<i>Moringaoliefera</i>	Selected	easily available, <i>vedanasthapak</i> , easily available.	-----
Maricha	<i>Piper nigrum</i>	Selected	<i>Vatashamak, chakshushya.(32)</i>	-----
Kushtha	<i>Saussurialeppa</i>	Rejected	-----	Not easily available
Tagar	<i>Valerianawallichii</i>	Rejected	-----	Not easily available

Selection / Rejection of the drugs from *Vatapittaghna* group

Drug	Latin name	Selected/rejected	Selection criteria	Rejection criteria
Ghrut		Selected	Vehicle	-----
Goat's milk		Selected	Vehicle	-----
Yastimadhu	<i>Glycerrhiza glabra</i>	Selected	Essential ingredient	-----

A shortlist was prepared following application of selection and rejection criteria to common 23 drugs: (*Tarpan, Aashyotan, Parishek, Anjan, Putapak*)

1. Daruharidra
2. Shigru
3. Erand
4. Sariva
5. Yashtimadhu
6. Shatavha
7. Maricha
8. Pippali
9. Lodhra
10. Haritaki
11. Ghrut
12. Milk
13. Honey

**CONCLUSION**

*Vatajnetrarogas* (*vataj kaka, anyatovat, shushkakshipak, vatajadhimantha, vatajabhishyandh, vatajparay*) are best treated with *Kriyakalpas* such as *tarpan, putpak, aashchyotan, anjan, parishek, pindika and bidalaka*. With the selection of 13 common drugs alongwith vehicle, one can easily prepare *kriyakalpas* which seems to be cost effective. It will be proved to be beneficial for wide use of *kriyakalpas* to cure and prevent eye disorders, primarily *vatajnetrarogas*.

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