

ANJANAM (EYE CARE IN AYURVEDA)

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ABSTRACT

Eyes is unarguably the most important of the five senses, as mentioned in our Ayurvedic texts. God has blessed us with eyes to enjoy the beauty and variety offered by the world he has created around us. Without eyes the day and night are equal, so eyes must be protected with extreme care. In our Ayurvedic texts, Anjana Karma (collyrium) is not only indicated for prevent and treat many eye disorders but also as a part of dinacharya to maintenance of eye health¹. When we refer to our classics for the therapeutic measures adopted in the management of eye health, we find that the management includes many of the topical treatments along with systemic ones. The reason might be that the drugs administered systematically may not cross the blood aqueous, blood-vitreous and blood-retinal barriers. Now the topical measures came into play and these are called as 'Kriya Kalpa'. Kriyakalpa includes various preparations like Tarpana, Putapaka, Seka, Ashchyotana, Anjana etc. Anjana karma (collyrium application) for the treatment of many eye diseases and beautification and maintenance of eye health, as a local measure. The process in which herbo mineral preparation (Gutika, Rasakriya & Churna) mix with unctuous materials, water and apply on the eyelids with the help of Shalaka (collyrium applicator) is called Anjana Karma. An Ayurvedic review & probable mode of action of Anjana Karma discussed in present article for eye saundaryam (beautification and maintenance of eye health).

Key words: Kriyakalpa, Ocular pharmacology, Drug administration (Anjana), Eyes.

INTRODUCTION

Netrakriyakalpas are various methods of application of medicines in the eye. Acharya Susruta explains 5 varieties of netra kriyakalpas² which include Tarpanam, Putapakam Sekam, Aschyotana, Anjana. These methods can be invariably use in all types of dosha vitiation, it is the drugs used for the procedure that make it more specific to particular dosha. Anjana are preferred in the Pakvavastha (later stage). Among this because of easy administration, availability, affordable price Anjana is the best option among Kriyakalpa especially when a long term therapy is needed. Anjana (collyrium) is a popular method of application of medicine inside the eye. Anjana (herbal collyrium) not only for eye beautification and maintenance of eye health, but also to prevent and treat many disorder of eye. Thus, Anjana has a

therapeutic importance and has been an integral part and prescription in Ayurvedic ophthalmology.

Anjana- Ayurvedic herbal collyrium

Anjana is a paste applied to the inner part of eyelids.

It is used to protect eye and maintain good eye health and vision

It is also an effective remedy for many eye disorders and also prevents many disorders related to eye.

It is used in the form of tablet, juice, powder, and many other forms.

CLASSIFICATION OF ANJANA

The description of Anjana by different Acharayas could be summed up as follows:

- **Based on their therapeutic effect**
Sushruta has mentioned 3 types of *anjana* which are³
(1) *Lekhana*(Scraping) (2) *Ropana* (Healing) (3) *Drishhti prasadana* (Cosmetic).
 - *Vridha Vagbhata* has described *snehana anjana* as fourth type.⁴ According to *Sushruta*; this *snehana* type is included in *drishhti prasadana* variety.
 - **Based on Karma (potency of drug)^{5,6}**
Vagbhatacharya has described 2 types of *anjana*-
(1) *Teekshna* (2) *Mrudhu*
Lekhana has been included in *teekshana* while *snehana*, *ropana* and *prasadana* in *mrudhu* type.
 - **Based on Rasa (drug taste)⁶**
Vagbhata has described 6 types of *anjana* as follow:
(1) *Madhura* (2) *Amla* (3) *Lavana* (4) *Tikta*
(5) *Katu* (6) *Kashaya*
- Based on Rasa Shastra classification⁷**
(1) *Souveeranjana* (2) *Srotoanjana* (3) *Rasanjana* (4) *Pusphanjana* (5) *Neelanjana*
- **Based on the form for use⁸**
As per the form of *anjana* it will be described as
(1) *Gutika* (*pinda*) (2) *Rasakriya* (3) *Choorna*
Their strength increases in preceding order i.e. *gutikanjana* is strongest.

➤ *On the basis of its properties and therapeutic actions-*

1. Lekhan anjana:

These are basically scraping collyriums, they are also called as *shodhana anjanas* because they are cleansing in nature⁹.

They scrap morbid doshas from eyes and head and expel them through eyes, mouth or nose.

They are made up with all *Rasa Dravya* except *Madhura* (sweet taste).

They are made up of herbs having *Amla* (sour), *Lavana* (salt), *Kashaya* (astringent), *Katu* (pungent), *Thikta* (bitter) tastes.¹⁰ They should be selected according to the vitiated *doshas*¹¹ i.e.

Vataja Roga -*Amla* and *Lavana Rasa Dravyas*

Pittaja Roga -*Thikta Kashaya Rasa Dravyas*

Kaphaja Roga -*Katu Tikta Kashaya Rasa Dravyas*

Raktaja Roga -*Tikta Kashaya Rasa Dravyas* should be selected.

Herbs of different *Ras* (tastes) are mixed and made into formulations as suitable to act upon different morbid doshas and cure many disease.

Lekhana Anjana scrape out and expel unwanted tissues, wastes and doshas from *Netra Vartma*, *Sira*, *Netra Kosha* and *Ashruvaha Srotas* through the mouth, nose and eye.¹²

2. Ropana anjana:

These are basically healing in nature. Apart from this, it is used to strengthen eyes.

They are prepared from herbs having *Kashaya* (astringent), *Thikta* (bitter) *Rasa Dravyas* along with *sneha* (*ghee* etc.) unctuous materials and medicines having cold quality.¹³

Ropana collyriums are made up of herbs having astringent and bitter tastes and their combinations. They are mixed with unctuous materials like oil, *ghee* etc and applied to eyes. These combinations or formulations prepared for strengthening eyes are comprised of unctuous and cold qualities.

3. Prasadana anjana:

These collyriums are basically soothing and calming in nature.

They are prepared from herbs having *Madhura* (sweet) *Rasa Dravyas* and unctuous materials (*Sneha Dravyas*)¹⁴.

Prasadana collyriums are made up of herbs having sweet tastes. They are mixed with unctuous materials like oil, *ghee* etc and applied to eyes. These formulations prepared for pacify morbid doshas in eye and bring about pleasantness and calmness in eye and vision. They improve the glow, color and glitter in eyes and make them attractive.

➤ *On the basis of formulation used or from of medicines used*¹⁵-

1. Gutika Anjana

Collyriums used in the form of tablets. It also mean wicks in this case because collyriums are also prepared in shape and form of wicks.

Therefore Gutika anjana can also be called as Varti anjana.

Gutika or Varti Anjana is 3 types-

- (1) Gutika lekhana anjana (2) Gutika ropana anjana
- (3) Gutika prasadana anjana

Tablet or wick collyriums are used to treat strong disease and doshas.

2. Rasa Anjana

Rasakriya anjana and Rasaanjana are other names of condensed collyriums.

Collyriums in form of condensed semisolid decoctions and stored is same form. When it is to be used, it is rubbed, made into paste and applied to eyes. In this procedure, decoction of herbs used for healing and soothing the eyes are condensed in method of preparing confections or herbs jams and is stored in same form, this

method is called inspissation or process of thickening something by dehydration method. Like gutika anjana, the rasa anjana is also used for all therapeutic actions. Thus, rasa anjans are of same types-

- (1) Rasa lekhana anjana (2) Rasa ropana anjana (3) Rasa prasadana anjana

Dose and method of use of these form of condensed collyriums are same as tablet or wick collyriums.

Condensed decoction collyriums are used to treat disease and doshas of moderate strength.

3. Churna Anjana

Churna mean powder. Herbal medicines are powdered and used in same form.

Powder collyriums are used for all therapeutic actions as mentioned above. In this, powder are applied into eyes using shalakas i.e. collyrium rods.

Thus, Churna Anjana is of three types-

- (1) Churna lekhana anjana (2) Churna ropana anjana (3) Churna prasadana anjana

Powder collyriums are used to treat disease and doshas of mild strength.

APPLICATION TIME FOR ANJANA KARMA

According to *Doshadikya*¹⁶

- *Kaphaja Roga - Poorvahna* (Morning)
- *Pittaja and raktaja Roga - Madyahna* (noon)
- *Vataja Roga - Aparahna* (evening)

According to type of *Anjana*¹⁶

- *Snehana- Aparahna* (evening)
- *Ropana- Madyahna* (noon)
- *Lekhana- Poorvahna* (morning)

According to *Ritu*

Acharya Shangdhara has described the time for application of *Anjana* according to season as¹⁷

- *Hemant- Madyahna*
- *Sharada + Grisham - Aparahna and Poorvahna*
- *Varsha-* when there are no clouds i.e. During Sunlight
- *Basant -* At any time

DOSE OF DIFFERENT TYPES OF ANJANA¹⁸

S.no.	Type of <i>anjana</i>	<i>Lekhana</i>	<i>Ropana</i>	<i>Prasadhana</i>
1.	<i>Gutika</i>	1 Harenu	1 1/2 Harenu	2 Harenu
2.	<i>Raskriya</i>	1 Harenu	1 1/2 Harenu	2 Harenu
3.	<i>Choorna</i>	2 shalaka	3 shalaka	4 shalaka

1 Harenu = one small size of pea

ANJANA KARMA EQUIPMENT

- Anjana patra (vessel for collyrium)
- Anjana shalaka (collyrium applicator)
- Drugs are the essential materials for Anjana Karma.

Anjana patra

It is used to store *Anjana*, and *Anjana Shalaka* for its application. The vessels to keep the *anjana* must have the similar properties with that of later, according to *Dalhana*¹⁹.

<i>Madhura rasa</i>	- <i>Swarna (gold) patra</i>
<i>Amla rasa</i>	- <i>Roupya (silver) patra</i>
<i>Lavana rasa</i>	- <i>Mesha shringamaya (horns of sheep)</i>
<i>Kashaya rasa</i>	- <i>Tamra or loha patra. (copper and iron)</i>
<i>Katu rasa</i>	- <i>Vaidoorya patra (cats eye gemstone)</i>
<i>Tiktha rasa</i>	- <i>Kamsya vessel (brass)</i>

Anjana Shalaka

Anjana shalaka or collyrium probe is a metallic cylindrical rod with 8 *angulas* in length (1 *angula* = 1.76 cm) and 1.5mm in diameter. Its both ends are slightly enlarged and bluntly pointed like a flower bud, should be easy for handling and should not be rough, thin, hard and breakable. It should be according the type of *anjana* used as-

<i>Madhura rasa anjana</i>	- <i>Swarna (gold) Shalaka</i>
<i>Lekhana anjana</i>	- <i>Tamra (copper) or loha or pathra Shalaka</i>
<i>Ropana anjana</i>	- <i>Loha (iron) Shalaka or anguli</i>
<i>Prasadana anjana</i>	- <i>Svarna (gold) or roupya (silver) shalaka</i> ^{20,21}

During painful conditions of eye *Anguli* shalaka should be used.²²

METHOD OF ANJANA KARMA

Before selecting the *Anjana karma* we have to consider-

1) The vitiated *doshas* must be in *pakwavastha*. This can be assessed by following symptoms²³-

- Mild oedema and redness
- Presence of itching and sticking sensation in eyes
- Presence of thick discharge from eyes
- Specially in *Vataja netra rogas*.

2) Patients must undergo *samshodhana* in the form of *siravyadha*, *virechna*, *nasya*, *vasti* etc. and *aschyotana*.²⁴

Procedure

The procedure adopted for the *Anjana karma* is as follow-

➤ Purva Karma(Preparatory Phase)

The pre requisites for *Anjana Karma* are-

- *Anjana* should be applied in the morning (8am) and evening (5pm).
- To avoid the anxiety of the patient the procedure should be explained to them.
- The patient is advised to lie in supine position on a comfortable bed.

➤ Pradhana karma (Main Procedure)

- Physician, with help of his left hand index fingers , patient's eye lids are drawn apart without any pressure.
- Collyrium should be taken on the applicator and it is applied with right hand over the Palpabral conjunctiva starting from the inner canthus (inner angle of eye) to outer canthus(outer angle of eye) and vice versa.
- This process should be repeated twice or thrice. So the drug is well deposited in the eye lids.
- The physician should not apply collyrium excessively at both ends or with painful manipulation. It may damage the eye and eyesight.

➤ Pashchat karma (Post Procedure)

- After the application, patient is advised to close his eyes and roll the eye ball in all directions for proper spread of *Anjana (collyrium)*.
- He must not be allowed to open or rub the eyes.
- After 5 to 10 minutes the eyes are washed with suitable *kashayas* or with luke warm water.
- After irrigation, the lids are drawn apart, and carefully inspected for drug precipitants. If any present they should be removed gently with dry cotton wool. Otherwise remaining particles will produce discomfort^{25,26}.

SAMYAK YOGA LAKSHANA(Effect of properly applied collyrium)²⁷

Vishada	–	Clarity in eye
Laghu	–	Feeling of lightnes in eyes
Anasravi	–	Cessation of discharges
Kriyapatu	–	Eye become active
Sunirmalam	–	Eye looks clean and attractive
Shanta upadravam	–	Complication get reduced

ATI YOGA LAKSHANA (Excess application effect applied collyrium)²⁸

Netra vakrata	–	Obliqueness of eyes
Kaathinya	–	Feeling of hardness in eyes
Durvarna	–	Manifestation of abnormal colors in eyes
Srasta	–	Laxity of eyes
Ati rukshata	–	Excessive dryness in eyes
Ati srava	–	Excessive eye discharges

HEENA YOGA LAKSHANA (Effect of Deficit applied collyrium)

They cause exacerbation of doshas. These doshas get vitiated in a ferocious way and damage eye and vision.

Prasadana and Ropana collyrium

When soothing and healing collyrium are applied properly and adequately they bring about-

Sneha varna balopetam –	Eye gets lubricated and enriched with good color
Prasanna	– Fell of pleasantness in eyes
Dosha varjitam	– Eye gets relieved from morbid doshas
Upadrava shamana	– Eye gets relieved from complication
Kriya kshamatvam	– Eye becomes compatible in term of its normal functions.

When soothing and healing collyrium are applied in excess or deficit, the disease of the eye are not cured properly

CONTRADICTION

The application of *Anjana*(collyrium) is prohibited in the below mentioned conditions²⁹.-

- Persons suffering from *Shrama* (fatigue), *Udavartha*(abnormal or upward movement of vata), *Rudita* (while person is in grief or weeping), *Madhya* (after consumption of alcohol), *Bhaya*(in presence of fear), *Jwara*(in presence of fever), *Vegaghatha*(in those who have forcibly controlled the body urges or is habituated to do so) and *Shirorogas*(those suffering from disease of head including headache),

If in these conditions applied *Anjana* may cause redness of eyes, discomfort, feeling of darkness in front of eyes or dusky feel, discharge, pain, and congestion, swelling and inflammation would get increased. This would damage eye and vision.

DISCUSSION

Most of the *Anjana* contain Arsenic and Antimony compounds. The molecular size of these compounds are very high. They can't cross blood aqueous barrier when they are administered orally/systemically. *Anjana* form increases the bio availability of drug by increasing the tissue contact time. So, the problem can be overcome when we apply it topically in the form of *Anjana*. Having the knowledge of these barriers our ancients advised to use such heavy drugs in the form of *Anjana*.

CONCLUSION

As in Ayurveda, we are applying ophthalmic therapeutic either in the form of local therapy i.e. *Anjana* or in the form of systemic use i.e. oral

Chakshushya dravyas. The main aim of any pharmacotherapeutics is the attainment of an effective concentration at the site of action for a sufficient period of time to elicit the response. In practice, therapeutic effect is found in all types of *kriyakalpa* (*Anjana*). Here in present review article, it is tried to correlate the Ayurvedic ocular therapeutic i.e. *Anjana* on the basis of modern basic principles of Ocular pharmacology. Various drugs can be selected according to the stage and types of the disease and can be used in *Anjana* according to need. In the light of above fundamentals of modern pharmacology, all the Ayurvedic ocular therapeutic procedures are relevant as such. . Today current methods of drug delivery exhibit specific problems that scientists are attempting to address. For example, many drugs' potencies and therapeutic effects are limited or otherwise reduced because of the partial degradation that occurs before they reach a desired target in the body. If orally administered time-release medications deliver treatment continuously, rather than providing relief of symptoms and protection from adverse events solely when necessary. Present conventional system of medicine has topical and systemic administration of drugs to the eye which are highly inefficient and there is a need for controlled, sustained release, particularly for conditions that affect the posterior segment. Various non implantable and implantable drug delivery devices have been developed which are far from satisfactory and result in more adverse effects which is driving scientists to research more and more into safe, effective drug delivery methods for all parts of the eyes.

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