



Review Article

Review of *Ark kalpana* in *Netraroga*

Rajashree M. Bangar^{1,*}, Virkar C. A.²

Ph. D scholar¹, Professor and HOD²

Department of Shalaky Tantra^{1,2}

^{1,2}P.D.E.A.'s College of Ayurved And Research Center, Nigdi Pradhikaran, Pune, Maharashtra, India- 411044

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*Corresponding Author: Dr. Rajashree M. Bangar, E-mail: rajashree3010@gmail.com

ABSTRACT:

Arka Kalpana is the base of many Ayurvedic preparations in this era. It was introduced in Ayurvedic Pharmacy in later part of *samhita* period. *Ark prakash* is the first Ayurvedic classical text in which various kinds of distillation Procedures are mentioned, for preparing *ARKA* from different type of *Dravya* for various diseases. *Arka Kalpana* is correlated with Distillation in modern pharmaceutical practices. According to *Ark prakasha*, the *panchavidha kalpanas* include *Kalka*, *Choorna*, *Rasa*, *Taila*, and *Arka*. In this context, *Arka kalpana* is given specific importance and it opines that it has more potency in comparison to the other *kalpanas*. Due to its increased potency, reduced dose, better shelf life, easy absorption, fast action and patient compliance, *Arka kalpana* is first choice in growing demand among current population. So there arises a need to know the simplified procedures and methodologies involved in the preparation of this formulation in the field of **Shalaky**. The pharmaceutical aspects regarding this formulation have been explained in detail with specific importance to the *yantras*, *patras*, *agni* and different method of preparation based on the consistency of *dravyas*. Being a *shalaki*, we can consider t *Ark kalpana* is playing major role in the Ocular therapeutics.

KEY WORDS: Arka, Distillation, Ocular therapeutics

INTRODUCTION:

Ark kalpana is now days famous *Kalpna* among the Ayurvedic formulations. In all *Netrarogas*, the eye drops play always the major role. Modern ocular therapeutics is always in the search of preservative free eye drops. Especially in the Dry eye syndrome, preservative free eye drops always in demand. The *Ark kalpana* will give us the major mile stone in the preparation of preservative free herbal eye drops.

Arka is a liquid preparation obtained by distillation of certain liquids or of drugs soaked in water using the *Arka yantra* or any convenient modern distillation apparatus.

Historical Review:

References of *Arka kalpana* are not found in vedic period nor in *Samhita* period. First of all in

12th century *Acharya Shodhala* mentioned about the *Arka Kalpana*. In Modern period the text like *Gadnigraha*, *Asav-Arista Vigyana* and *Sahastrayoga* described about *Ark yantra* and *Arka* preparation.

Though different books are written on *Ark Kalpana* in Modern period, *Arka prakash* written by the Ravan is considered as a compressive referral book as far *Arka Kalpana* is concerned.

Importance of the *Arka's* in *Netraroga*:

1. In comparison with the *Ashchyotan* procedure, *ARK kalpana* is always easy for patients use. As in *Ashyotana*, some of remedies, we have to prepare fresh (*swaras*, *kalk* etc.) On daily basis. But the Shelf life

- of *Arka* is 1 year, when it is stored in sterile container. So the least chances of contamination.
2. As *ARKA* is always in concentrated and purest form, while using it for *Ashcyotana* purpose, we can reduce the normal *Aschyotan matra*(8, 10, 12 drops) to (1, 2, 4 drops) as per the need.
3. It can be preserved for longer time than other *Kalpanas*.
4. Better choice for the patients of *Mridu Prakriti* and one who hesitates to take medicines like *Churna*, *Kwath* etc.
5. *Arka* is prepared by the combination of *Jala* and with help of *Agni*; hence *Arkas* are *Laghupaki*, *Vyavayi* & *Vikasi* & thus assimilates quickly in the body cells.
6. *Arkas* have good palatability and fragrance. (After instillation of eye drops, patient would not get bitter taste in mouth)

7. Effective method for the *Aushadhi* containing the volatile oils.
8. In the *Ark prakash*(3rd, 4th, 7th, & 9th Shatak or chapter), various remedies are written specially for *Netra roga*

Key points in the method of preparation of Arka:

1. Collection of the best quality dravyas.
2. Distillation consists of two steps:
 - a) Evaporation
 - b) Condensation
3. Precautions during preparation
4. Distribution of *Agni* in *Arka* preparation.
5. Removing *durgandha* from *Arka*
6. Proper storage of *Arka*
7. Examine the characteristics of *Arka*
8. Shelf life: 1 year

Table No. 1: Shloka References of *Netrarogas* in *Arkprakash*

Sr . No .	Formulations(अर्क)	Chapter with shloka no. (शतक)	Mode of action
1	Mishrya ark	3/10	Netrarogahara
2	Madhuparni	3/23	Pittaj and Raktaj Netra roga
3	Madanfala	3/27	Netraroga hara
4	Daruharidra	3/37	Netra and Vran rog hara
5	Lodhra	3/39	Kaphaj and Pittaj Netraroga
6	Bruhatpatra	3/40	Netra and Shothahara
7	Jivanti	3/47	Netra and Tridosha hara
8	Shigru	3/58	Netra and Shiroroga
9	Shwet punarnava	3/77	Netrarog
10	Kakmachi	3/80	Netra, Hrudrog
11	Meshashrunji	3/82	Netra-pidahar
12	Ketaki	3/99	Netra, Daha-har
13	Yashti adi SUGANDHGAN	4/22	Netra rog
14	Ahifen, Trifala ark	7/18	Netrabhishyanda
15	Mash	7/19, 20	Netrarog hara
16	Netratarpan vidhi	7/23	Shushkakshi pak
17	Punarnava, Yashti adi	7/26, 27	Netrarogashamak
18	Netra rog shamak and Ratrاندhya har (night blindness) ark	7/26-28	
19	Netrya gana	9/5	Netra hitkar

Mode of action of above drugs:

According to treatment, we can divide the eye diseases in 2 categories

1. Local eye diseases e. g. Chalazion, Stye, Pterygium
2. Eye diseases due to systemic disorders e. g. Retinopathy due to hypertension. Anterior uveitis due to Arthritis.

So keeping in mind, above division, we can give ARK KALPANA accordingly.

In local eye diseases, we can prescribe the ARK KALPANA in eye drops form

In systemic eye diseases, we can prescribe ARK KALPANA, orally as a systemic medicine and locally as eye drops, if required.

DISCUSSION:

Probable action of drugs used in ARKPRAKASH

- Mishreya having the Ruksha, Ushna guna can be prescribed in Kaphaj netrabhishyanda (A.S. 19/1)
- Madhuparni is a well known and widely used as a Chakshushya dravya with its Sheetadi guna in Shushkashipak.
- Madanfal with its Snigdha guna was prescribed in Kukunak for Vaman (VA. U. 9)
- Daruharidra can be used as a Lekhan and Vranroop in many eye diseases.
- Lodhra with its Sheet guna is effective in Raktaja Abhishyanda, Avrana shukla (VA. U. 11)
- Bruhatpatra (Erant) with the Snigdha, Ushna guna can be used as Shothahara in Utsangini (VA. U. 9, 10)
- Jivanti is Snigdha, Sheet and Chakshushya (Bha. Ni.). Its ghruta is used in a tarpan for many ocular surface disorder.
- Shigru is Ushna, Ruksha, Laghu dravya, is effective in Pothaki vyadhi (VA. U. 9/33)
- Punarnava is widely used as a Shothahar (Bha. Ni.) in various ocular diseases.
- Kakmachi is having Snigdha, Ushna guna, also used as a Shothhar (Bha. Ni.) in various ocular diseases.
- Meshashrunji is Ruksha, Tikta dravya. Its reference is seen in Timir vyadhi (Su. U. 17/44, 45)

- Ketaki (Laghu, Ushna gunatmak) is Dahshamak and Chakshushya dravya. (Bha. pra.)
- Ahifen is a Sookshma, Vikasi dravya. As per the Arkprakash it can be use in Netrabhishyanda
- Mash is Guru, Ruksha dravya. Its flour is used as a base in Tarpana (kriya kalpa).

CONCLUSION:

Ark kalpana is a very unique formulation in Ocular therapeutics. With the strong base of Ayurvedic literature, there is a big scope of preparing herbal eye drops. While following this task, we have to consider many parameters like, **pH of eye drops**, its efficacy in eye etc. So it needs more pharmaceutical study and Research in Shalakyana (netraroga), without violating the basic principle of Arka Kalpana.

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