

Review Article

Arka Kalpana – An Important Kalpana in Ayurveda

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ABSTRACT:

Ayurveda is a science of life & serve to mankind since a long period. In ayurveda Bhaishajya Kalpana is branch which deals with the different kinds of dosage forms & there therapeutic value. Arka kalpana is famous Kalpana among the Ayurvedic procedures. In ayurveda Panchavidh Kashaya Kalpana have great importance as they form the primary doses forms which other secondary dosage forms are prepared. In Bhaishajya Kalpana Swaras, Kalka, Kwath, Hima & Phant are five basis kalpana. Some Acharya have varying opinion in the respective formulation. In Arka Prakash Ravana explain the Panchavidh Kalpanas include Kalka, Churna, Rasa, Taila & Arka. Arka Kalpana is given specific importance due to more potency in comparison to other Kalpana's. Arka Kalpana is first choice in today's population due to its increased potency, reduced dose, better shelf life, easy absorption, fast action. The pharmaceutical aspect related this formulation have been explained in details with specific importance to the Yantras, patras, agni & different method of preparation based on the consistency of dravyas. This paper explain Arka Kalpana details which is available in literature in Ayurveda.

KEY WORDS: Ayurveda, Bhaishajya Kalpana, Arka, yantra

INTRODUCTION:

Ayurveda is a science of life and it is preventing as well as curing the disease. Bhaishajya kalpana is the branch deals of ayurveda which deals with different kinds of dosage forms and their therapeutic utility. In Arka Prakash Arka Kalpana is described as one of the Panchavidha kashay Kalpana explained by Lankapati Ravan. The word Arka derived from 'Ru-gatau' means Gati (motion) denotes Gyan, Gaman, and Prapti. In arka process all three meanings accepted, as the knowledge of the contents of the drug is first thing (gyan), the motion is given to the contents water (means -Gaman), and lastly required amount of active content is obtained (means- Prapti). Thus, Arka contains the complete aspect of its manufacturing process by root word 'Ru-Gatau'.

Arka are distilled essences, which contain the volatile constituents of the drug used in the preparation, in a medium of water and they are equivalent to the waters or aquae of the Western Pharmacopoeia, which are prepared in the same way. Some of the drugs which contain active principles in the form of

volatile oil.

Arka kalpana can be defined as a liquid preparation obtained by distillation of certain liquids or preparation obtained by distillation of the certain liquids of drugs soaked in the water using the Arkayantra or in modern distillation apparatus. Arka as a dosage form can be seen in different texts but the pharmaceutical aspect Arka Kalpana is mentioned in detail mainly in Arka Prakash explained by Lankapati Ravan. Arka Kalpana stability period is comparatively more than other Panchvidh Kashay Kalpana and also arka Kalpana possess good palatability and attractive pa, hence its acceptency is more. So its very important kalpana in Ayurveda.

Aims and objectives

To review literature study of Arka Kalpana

Literature Review-

Lankapati Ravan's Arkaprakash is Considered as a referral book for Arka Kalpana in which arka

preparation Arka Yantra Preparation described in details . Referances of Arka Kalpana are not found in vedic and Samhita period.

Material and method-

According to Arka Prakash method of preparation Arka Kalpana is in detatail as below

Equipments-

Equipments for Arka preparation required are-

Chulha -Angadi or Stove

Wood- Coal along with kerosene

Dravya- Oushadi Dravya

Patra- Glass bottles

Yantra- Varuni Yantra, , Nadika Yantra,Tiryak patan yantra, Arka Yantra

Arka sangrahana patra

1) Wood required for preapraing Arka-

Wood used for preparing Arka must be sarasa (with latex) and atisushka(extremely dry) preferly made by up of Khadiradi woods.

2)Dravya- Drug more than one year

Infested with microorganisam or pest (keeta)

Gandha rasa virahita must not be taken as fuel.

3)Patra-for soaking Kalayidar vessel or mud pot is used.

4)Arka Yantra-1

Ingredients required for preparing mrutika for Arka yantra are Loha churna, sphatika, gairika, gairik, brasta mrutika(fried mud), asthibhav mritika (bone powder), kacha churna(glass powder), Kikasa raja (kaseesa), Mitti(mud), Pancha mutra-Gava, Ashva, Mahisha, Gaja, Aja), Lid, Toyadhara(waterbath) and Cork

Preparation of Arka Yantra mrittika- Above churnas should be taken in equal quantity and Pancha mutra are added and mardana (grinding) of above drugs must be done till the urine smell completely removed.

Method of manufacturing Arka yantra-

From the above mrittika round vessel should bemanufactured by pot maker. Mouth of the Arka

yantra should be not be less than 3 angula in size (approx.6cm) in size like Surya Mandala. One lid prepared same size of mouth 3 angula by which it is tightly join with vessel. Jeernasthi mrittika used to seal the edges of Arka Yantra to make it airtight.In this whole the tube Bamboo (one is small and anotheris double the size of first one) is inserted and mrittika should be applied on all the joints so that will not escape out of A rka yantra. Toydhara must be kept on the top of Arka Yantra. The small tubeis inserted measuring 4-5 Angula (10cm approx.) inside the pot. Arka patrashould be kept just below the large tube. The vapours that are formed after boiling and which come out from the pot is collected in that vessel. This vessel must be kept in cold water. In this way the fumes will get condensed and again collected in the form of Arka.

5)Arka Patra-

Arka Patra means the Patra which is used to receive Arka. Arka patra must be prepared out of Jeeernasthi mrittika, Kancha patra, pashana patra and Mrit patra.

Method of Preparation-

Arka Prakash of Ravana clearly mention the method of Arka preparation which is as follows-

The required quantity of water is added to drugs for soaking and kept over night. Then next day moring it is poured into the Arka yantra and remainining water was added and boiled. The vapors get condensed and collected in between contain the active ingradients and may be mixed together together to ensure uniformity of the Arka.

In recent books it is mentioned as- Drugs are soaked and kept overnight.Eight times of water must be added.Madhyagni (modrate fire) or Teevra agni (extreme fire)must be mentained during the procedure and only two third of the poured liquid must be collected.

Agnis for prepatation Arka-4

Shat agnies used in preparation of Arka

During Arka patana (collection of arka) the Agni (fire)must be proper.for the preparation of Arka six different types of Agni are mentioned as bellow-

1) Dhoomagni(smoky no fire)-

This agni is without any flame and there is a huge amount of fumes.this type of agni take 2 yam (6hr) to prepare Arka.

2) Deepagni (2/4 times dhumagni)-

when the flame of Dhumagni is increased to 2 or 4 times it is considered as Dipagni. Quantity of fuel required for this type is 2 part of the quarter of 1 mushti (fist). total time taken for it is 1 1/2 yama (4.5 hours).

3) Mandagni (4 times deepagni)-

If the flames of Deepagni is again increased to four times then it is termed as Mandagni. Total time is required for this 1 yam (3 hours) and quantity of fuel required for this is 1 yama (3 hours).

4) Madhyamagni (between deepagni & mandagni)-

The Agni in which the flame is in between Dipagni and Mandagni it is termed as Madhyamagni. Total time is required 2 yam (6hr). quantity of fuel required for half musthi .

5) Kharagni (5 times madhyagni)-

Fifth part of complete Agni is known as Kharagni, this Agni is used for all purpose. Total time is required 1 muhurta (45 minutes) and the quantity of fuel required is 2 1/2 mushti.

6) Bhatagni (high burning flame)-

The Agni in which the flame spreads all over the bottom of the vessel is considered as Bhatagni. Total time is required 1 Muhurta (45 minutes).

Arka Niskaranartha Agni kal-4**Sardha yama (4:30hrs)****Yama (3 hrs)****Yamardha (1:30hrs)****Muhurta (48 min)****Specific Method of Preparation-**

The five old classification of drugs is Atyanta Kathin (very hard), Kathi (hard), Adra (wet), Pallava (tender leaves) and Drava (liquids). Different methods for different Arka are mentioned for different Arkas. The types of Drug, quantity of water and example of each type are mentioned below-

1. Atyanta Kathin drugs-

for this types quantity of water required is 3 part . e.g. Chandana

For preparing Arka of these, the dry drugs are coarsely powdered, soaked in twice quantity of water and kept in shade till the water dries and drug turns soft. Then water is added equal to the quantity of the drug and kept in sunlight and moon light for 8 praharas (1 prahara=3 hrs). Further it is transferred to Arka yantra to extract Arka.

2. Katina (hard drug)-

for this types quantity of water required is 2 part. e.g. Ajmoda

For preparing Arka the dry drug is coarsely powdered and twice the quantity of water is added to it. It is then kept in moon light for 8 praharas (24 hour). If in cold climate or cold place soak it for 16 praharas (48 hours). Later transfer it to Arka yantra to extract Arka.

3. Ardra dravya:

The term Ardra means wet. It is of two types: Sarasa and Nirasa

Sarasa Nala (stem with juice)- Sarasa means with juice. For preparation of Arka from Sarasa drugs, the churna is prepared from naala (stem) of these drugs and 1/20th part of water is added. Heat it for 1 muhurta (48 min).

e.g. Nirgundi, Earand

Nirasa: Nirasa means drug devoid of juice for juice, For preparation of Arka from these drugs-1/20th part of water is added and soaked for 1 prahara.

e.g. Vata, Asvatha

4. Patra (leaves)-

Patra means leaves. For preparation of Arka from leaves -1/100th part of water is added and kept for 24 minutes for soaking and transferred to Arka yantra. E.g. Vasapatra

5. Sadugdha-

Sadugdha is a type of nirasa dravya. It includes plants which are having milky fluid in it. It is of two types Mrudu and tikshna dugdhika. .

6. Mridu dugdhika:¹⁰

It includes plants like Arka for preparation of Arka. Water is added 4 times to it and Arka is extracted till it turns hot. e.g. Dugdhika.

7. Tikсна dugdhika:

Drug pieces and water required is soaked for 3 days and pounded well. If milk does not come from that water is added 10 parts of the drug and Arka is extracted. e.g. Satala

8. Phala:¹²

It includes plants like Amra (mango). Arka is prepared without adding any water. e.g. Amra

9. Kashta Oushadas:

Kashta oushadhas means woody stem. For preparing Arka from kashtas the following **procedure** is adopted. The dry drug is coarsely powdered. 1/80 part of water 4 times Sarjikhara and Saindhalana (rock salt) is added to it. 1/40th part of water is added to it and transferred it to Arkayantra. e.g. Udumbara

10. Ati pakwa phala:

Arka is prepared without adding water in ati pakwa phala. e.g. Kadali

11. Pushpa:

For preparation of Arka from flowers -1/16th part of water is added and kept for 3 hrs. e.g. Gulab arka

12. Katu phala:

Wash with water several times, Add 1/40th part of water. e.g. Pippali

13. Drava dravya:¹⁵

For Arka preparation from liquid drugs. Drugs are filled in Arkayantra and Arka is to be prepared. e.g. Gomutra

Removing durgandha from Arka:^{18,19} After preparation of Arka if it has bad smell then it has to be fumigated by Hingu, Methika, Rajika powder and ghee for several times.

Storage of Arka: Arka should be stored in air tight bottle. Expose to air will lose its volatile constituents. Don't remove the oil drop from Arka because these are the desirable medicaments of the root drugs and are medicinally important. Before using the Arka, bottle should be well shake.

Characteristics of Arka: Arka is a suspension of the distillate in water having slight turbidity and colour according to the nature of the drug used and smell of the predominant drug

Shelf life⁻¹⁶ 1 year

Analytical specification of Arka-

- 1) Colour & Odour
- 2) pH
- 3) Volatile matter
- 4) Specific Gravity at 25^o c
- 5) Clarity test
- 6) Sterility Test
- 7) Assay
- 8) TLC/HPTLC/GLC

DISCUSSION:

Arka kalpana has significant role in traditional medicine. In present many researches of Arka Kalpana have been carried out to explore the importance of Arka Kalpana and its activity.

The equipment for preparing Arka include Chulha, Lakdi (wood fuel), Dravya Patra, Yantra and Arka Sangraha patra. Several different types of classification of Arka are mentioned in different literatures. They are based on contents, part used, duration of preparation, action on doshas, manogunas, ruti and diseases. A detailed explanation regarding all the aspects in the manufacturing of Arka is seen in Arka Prakash by Ravana.

CONCLUSION:

Arka kalpana is very unique formulation in Bhaishajya Kalpana, owing to its method of preparation and efficacy. The pharmaceutical aspect of this formulation have not been reviewed much in Ayurveda. The main authentic text which explains the procedure involved in the manufacture of Arka Kalpana is Ravana's Arka Prakasha. There are a number of factors which have a significant role in the preparation of Arka starting from the equipments required like Arka yantra, Arka patra, the specific wood drugs for the preparation of Arka and the agni to be used along with the duration.

SUMMARY:

Arka Kalpana is a very unique formulation in Bhaishajya Kalpana, owing to its method of preparation and efficacy.

The main authentic text which explains the procedure involved in manufacture of Arka Kalpana is Ravana's Arka Prakasha. Arka Yantra, Arka Patra, the specific wood and the agni to be used along with the duration play a significant role in preparation Arka.

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