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# PHARMACEUTICAL MODIFICATION OF HINGWASHTAKA CHURNA INTO ARKA (DISTILLATE) FORM

Ayurveda

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## ABSTRACT

Numerous dosage forms, including churna, vati, avaleha, modaka, asava-arishta, and others, were described in Ayurveda. The acharyas have granted freedom to create various formulas. The colour and taste of Ayurvedic medicines are now drawing increasing attention from society. By making simple changes, we can alter the colour and flavour of Ayurvedic medications. The best technique to present Ayurvedic medicines in a fresh way is through pharmaceutical modification. One Ayurvedic medicine in the powder form with significant therapeutic value is Hingwashtaka churna. Due to its palatability, distinctive fragrance, and colour, form, it is considered to be challenging to deliver to children. Here's an attempt to make Arka (Distillate) from Hingwashtaka churna, changing the medication's solid (powder) form to liquid. Prepared Arka (Distillate) was administered to different age grouped healthy volunteers; feedback was good in terms of palatability.

## KEYWORDS

Hingwashtaka churna, Arka, Distillation.

## INTRODUCTION

*Rasashastra & Bhaishajya kalpana* is a specialized branch of *Ayurveda* in which, there is not only scope for designing new formulations but also for changing the dosage form based on need of the patient. Modern pharmaceutical technologies are so advanced that we can modify *Ayurvedic* dosage forms without compromising with the basic concepts of Ayurveda. *Hingwashtaka churna*[1] is one such classical *Ayurvedic* medicines which is known for its vatanulomaka action along with deepana, pachana karma indicated in Agnimandya, Aruchi, Ajeerna, etc. As the churna is not user friendly especially for children, planned to modify churna into liquid form. Keeping pharmaceutical modification in view the churna is modified into Arka (Distillate form). With this the product becomes user friendly especially for children.

## OBJECTIVES

1. Preparation of Hingwashtaka churna (Coarse powder)
2. Preparation of Hingwashtaka Arka (Distillate)
3. Analysis of organoleptic characters of both samples

## METHODOLOGY

To fulfill the key objectives, the study was carried out in three phases namely,

(i) Preparation of Hingwashtaka Churna
(ii) Pharmaceutical Modification of prepared Churna into Arka
(iii) Analytical study of both (Churna and Arka) samples.

### 1.Preparation of Hingwashtaka Churna[1]

**Table 1: Ingredients of *Hinhwashtaka Churna***

| Sl.No. | Ingredients | Botanical name | Part Used | Quantity |
|---|---|---|---|---|
| 01 | Shunti | Zingiber officinale | Rhizome | 13g |
| 02 | Maricha | Piper nigrum | Fruit | 13g |
| 03 | Pippali | Piper longum | Fruit | 13g |
| 04 | Ajamoda | Trachyspermum ammi | Fruit | 13g |
| 05 | Saindhava lavana | Rock salt | --- | 13g |
| 06 | Shweta Jeeraka | Cuminum cyminum | Seed | 13g |
| 07 | Krishna Jeeraka | Carum carvi | Seed | 13g |
| 08 | Hingu | Ferula foetida | Exudate | 13g |

**Method of Preparation:**
All the ingredients are made into coarse powder separately and ghrita bharjita hingu also powdered separately. Coarse powder was used for the preparation of Arka. Fine powder also prepared and sent for analysis.

**Precautions:**
Coarse powder was prepared and the same was used to prepare arka. Fine powder also prepared and sent for analysis

**Dose:** 1 to 2 g
**Anupana:** Ghee

**Important Therapeutic Uses:**
Agnimandya (Digestive impairment), Shoola (Colicky Pain), Gulma (Abdominal lump), Vataroga (Disease due to Vata dosha)

### 2. Pharmaceutical Modification of prepared Churna into Arka:

Distillation apparatus was used to prepare Hingwashtaka Arka. Though there is no reference of Hingwashtaka Arka in Ayurveda classics, as per the reference of Arka kalpana from Arka prakasha[2] and AFI[3] 1: 10 ratios were taken for the study.

**Ingredients:**
Prepared coarse powder of Hingwashtaka churna - 100 g
Water – 1 ltr

**Observation:**
Arka obtained: 700 ml

**Precautions:**
care should be taken during arka preparation; only 70% arka was extracted, to avoid charred smell. Preaped arka was store in airtight container.

### 3. Analytical study of both (Churna and Arka) samples.

Both samples of Churna and Arka were subjected to analytical procedures like specific gravity, pH, Acid insoluble ash, Ash value, Loss on drying. Results were compared with API standards.

## RESULT

**Table.No. 2. Organoleptic characters of Hingwashtaka churna**

| | |
|---|---|
| Form | Churna |
| Colour | Light brown |
| Odour | Astringent |
| Taste | Aromatic |

**Table.No. 3. Organoleptic characters of Hingwashtaka Arka**

| | |
|---|---|
| Form | Liquid |
| Colour | Colourless |
| Odour | Characteristic |
| Taste | Katu, lavana |

**Table.No. 4. Physico chemical study of Hingwashtaka Arka**

| | |
|---|---|
| Specific gravity | 1.000 |
| pH | 3.78 |

**Table.No. 5. Physico chemical study of Hingwashtaka Churna**

| | |
|---|---|
| Loss on drying | 5.979% |
| Ash value | 17.115% |
| Acid insoluble ash | 0.199% |
| Water soluble extractives | 36.472% |
| Alcohol soluble extractives | 15.353% |

## DISCUSSION

On screening different texts of Ayurveda, Hingwashtaka churna explained in different Rogadikara like, Ajeerna, Agnimandya, Grahani, Gulma, Shula, Vataroga. This variety of indications is because of immense qualities of its ingredients. For pediatric use churna form is not feasible. So here is an idea to modify churna into Arka form, so that in liquid form it can be used in pediatric age group. As per the reference of Arkaprakasha one can prepare arka kalpana with fresh drugs, powders, vegetables etc. By keeping this point in view present study was planned to prepared arka from Hingwashtaka churna. As a part of drug standardization prepared Churna and Arka were subjected to analytical parameters. On observation all values found within limit when compared to API. Prepared arka was given to some randomly selected different age group subjects to assess its palatability. Good opinion about its palatability was observed in this pilot study. Further pre-clinical and clinical studies are required to prove its efficacy.

## CONCLUSION

Pharmaceutical modification is need of hour. We have provision to modify formulations into suitable form. As per Chraka samhita's quotation from kalpa sthana "SWABUDDHAIVA SAHASRANI KOTIRVAAPI PRAKALPAYET" one can prepare many formulations with his yukti, without altering the basic principles of Ayurveda. Present study revealed good opinion about the palatability of modified formulation. To assess its efficacy further clinical studies can be appreciated. Pharmaceutical modification from churna to arka was observed a good initiative. As the study was planned in keeping view of pediatric age group, its palatability was good. Further pre-clinical study and clinical study should be carried out to assess its efficacy in particular disease.

## Aknowledgement

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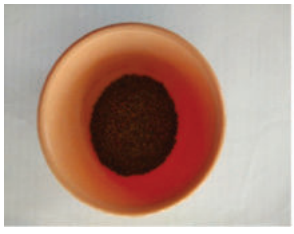
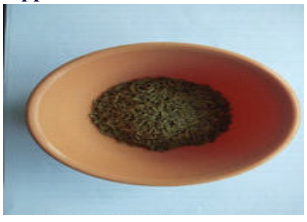


**Ajamoda**

**Shunti**

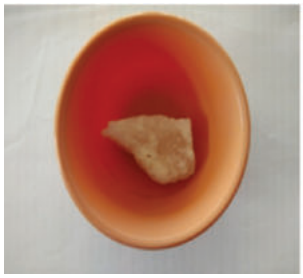
**Pippali**

**Maricha**



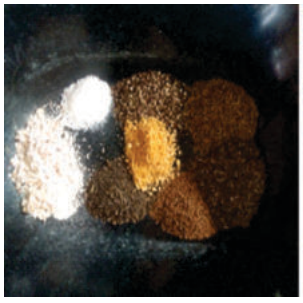
**Shweta Jeeraka**

**Krishna Jeeraka**



**Saindhava lavana**

**Hingu**



**Mixing in khalwa yantra**

**Hingwashtaka churna**

**Distillation process**


**Hingwashtaka Arka**

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