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ANALYTICAL STUDY OF BRUHATSHARKARASAMA CHURNA

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ABSTRACT

Bruhatsharkarasama churna is a yoga mentioned in Vangasena samhitha. This yoga which is in the form of sukshma churna (fine powder) is administered along with Madhu (honey) as anupana. This yoga is indicated in cough, indigestion, fever, anorexia, breathlessness and various gastro-intestinal disorders. Standardization of a formulation helps in providing a reference for further studies. In the present study; Organoleptic characters, Loss on drying, Total Ash, Acid insoluble ash, Water soluble ash, Acid soluble extractive, Water soluble extractive tests were carried out.

KEYWORDS: Bruhatsharkarasama churna, Analysis, Standardization.

INTRODUCTION

Standardization is the process of developing, promoting and possibly mandating standards-based and compatible technologies and processes within a given industry.[1] In Ayurveda, standardization of formulations is very important as the qualities of herbal drugs and thereby formulations may differ depending upon various factors. Conducting studies on different herbal formulations and setting up standards will help in further research works.

Bruhatsharkarasama churna is a formulation mentioned in Vangasena Samhitha.[2] Ingredients are Lavanga (Syzygium aromaticum), Jatiphala (Myristica fragrans), Pippali (Piper longum), Maricha (Piper longum), Shunti (Zingiber officinale) and Sharkara. This

yoga which is in the form of sukshma churna (fine powder) is administered along with Madhu (honey) as anupana. This yoga is indicated in cough, indigestion, fever, anorexia, breathlessness and various gastro-intestinal disorders.

MATERIALS AND METHODS

Aim and Objective

To establish standards for Bruhatsharkarasama churna by using proper analytical parameters.

Collection and identification of raw drugs

The raw drugs were collected from Alva's Pharmacy, Mijar and was authenticated by Department of Dravyaguna, Alva's Ayurveda Medical College, Moodbidri.

Table 1: Table showing Botanical name, family, synonyms and part used of individual drugs in Bruhatsharkarasama churna.

Drug	Botanical name	Family	Synonyms	Part Used
Lavanga[3]	Syzygium aromaticum	Myrtaceae	Devakusuma, grahanihara, varija	Flower bud
Jatiphala[4]	Myristica fragrans	Myristicaceae	Maalatiphala, majjasaara, malatisutra	Fruit
Pippali[5]	Piper longum	Piperaceae	Krishna, kola, tikshna, ushna	Fruit
Maricha[6]	Piper nigrum	Piperaceae	Dhanwantari, ushna, tikshna	Fruit
Shunti[7]	Zingiber officinale	Zingiberaceae	Shrigavera, nagara, vishwabheshaja	Rhizome
Sharkara[8]	-	-	Sharkara, Khanda sharkara	-

Preparation of the formulation

The formulation, in the form of sukshma churna was prepared from Alva's Pharmacy Mijar.

Analytical study

The studies conducted were, Organoleptic characters, Loss on drying, Total Ash, Acid insoluble ash, Water soluble ash, Acid soluble extractive and Water-soluble extractive. The study was performed in Department of Pharmaceutical Chemistry and Pharmacognosy, Sri Dharmasthala Manjunatheshwara Centre for Research in Ayurveda and Allied Sciences, Udupi.

- **Organoleptic characters:** Organoleptic characters were noted using sensory organs.
- **Loss on drying at 105^{o}C:** 10 g of the sample was placed in a tared evaporating dish. It was dried at 105˚C for 5 hours in hot air oven and weighed. The drying was continued until the difference between two successive weights was not more than 0.01 after cooling

in desiccator. Percentage of moisture was calculated with reference to weight of the sample.

- **Total Ash:** 2 g of sample was incinerated in a tared platinum crucible at a temperature not exceeding 450˚C until carbon free ash was obtained. Percentage of ash was calculated with reference to weight of the sample.
- **Acid insoluble Ash**: To the crucible containing total ash, 25ml of dilute HCl was added and boiled. The insoluble matter was collected on ashless filter paper (Whatmann 41) and was washed with hot water until the filtrate was neutral. The filter paper containing the insoluble matter was transferred to the original crucible, dried on a hot plate and was ignited to constant weight. The residue was allowed to cool in a suitable desiccator for 30 mins and was weighed without delay. The content of acid insoluble ash was calculated with reference to the air-dried drug.
- **Water soluble ash:** The ash was boiled for 5 min with 25 ml of water; insoluble matter was collected on an ashless filter paper, washed with hot water, and ignited for 15 min at a temperature not exceeding 450˚C. The weight of the insoluble matter was subtracted from the weight of the ash; and the difference in weight represents the water-;soluble ash with reference to the air-dried sample.
- **Alcohol soluble extractive:** 4 g of the sample was weighed accurately in a glass stoppered flask. 100 ml of distilled Alcohol (approximately 95%) was added. Occasionally was shaken for 6 hours and allowed to stand for 18 hours. Then rapidly filtered taking care not to lose any solvent. 25ml of the filtrate was pipetted out in a pre-weighed 100 ml beaker and evaporated to dryness on a water bath. It was kept on air oven at 105°C for 6 hours, cooled in desiccator for 30 minutes and weighed. The percentage of Alcohol extractable matter of the sample was calculated. The experiment was repeated twice, and the average value was taken.
- **Water soluble extractive**: 4 g of the sample was weighed accurately in a glass stoppered flask. 100 ml of distilled water was added, shaken occasionally for 6 hours and allowed to stand for 18 hours. It was rapidly filtered taking care not to lose any solvent. 25ml of the filtrate was pipetted out in a pre-weighed 100 ml beaker and was evaporated to dryness on a water bath. It was kept on air oven at 105°C for 6 hours. Cooled in a desiccator and weighed. The experiment was repeated twice and the average value was taken.

RESULTS

Table 2: Organoleptic characteristics of Bruhatsharkarasama churna.

Parameters	Results
Color	Straw yellow
Odour	Pleasant characteristic
Taste	Sweet

Table 3: Results of standardization parameters of Bruhatsharkarasama churna.

Parameter	Results n = 3%w/w (Avg ± SD)
Loss on drying	7.05
Total Ash	2.40
Acid Insoluble Ash	0.29 ± 0.014
Water soluble Ash	1.59 ± 0.014
Alcohol soluble extractive value	9.29
Water soluble extractive value	75.86 ± 0.014

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