



## Research Article

### PRELIMINARY STUDIES OF SOME MARKETED AYURVEDIC PREPARATIONS OF ASAVA'S AND ARISHTA'S

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Article Received on: 18/07/17 Approved for publication: 10/08/17

**DOI: 10.7897/2230-8407.088138**

#### ABSTRACT

Ayurveda is a science of life. Ayurveda is considered as the Upaveda of Atharvaveda which deals with different type of herbs, plants, the anatomy and physiology of different organs of body and the principles of treatment of diseases. Ayurveda is an oldest system of medicine which native to India. Asava and Arishta's are liquid preparations containing self generated alcohol. Thus contain water soluble as well as alcohol soluble substances of the drugs. Asava and Arishta's are differing from each other owing to their difference in method of preparation. In the current study, an attempt was made to evaluate some ayurvedic preparations like Asava and arishta available in market. The preparations were evaluated for various parameters like estimation of alcohol content, P<sup>H</sup> values, total solid content, density, surface tension and viscosity of Asava and Arishta's. It was observed that an establishing quality and standard parameters like alcohol level, P<sup>H</sup>, acid values and other components of all these preparations are highly significant.

**Key words:** Asava, Arishta's, Marketed Preparations, Evaluation study.

#### INTRODUCTION

Ayurveda is one of the most ancient systems of medicine known today developed through daily life experiences with the mutual relationship between mankind and nature<sup>1</sup>.

The lack of appropriate clinical studies of Ayurvedic treatments is heavily criticized by Western physicians. Western physicians and medical scientists claim that very few clinical studies exist and those that do exist show, at best, questionable results. Their main concern against Ayurveda is that its reliance on pure observation, experimentation, and philosophical emphasis on individualizing treatments (i.e. making different treatments for different people for the same disease) create consistency and unreliable data on the efficacy of the treatments. Although Ayurved as strength comes from the fact that it is highly individualized form of medicine, this is a disadvantage in the context of the western world <sup>2,3,4</sup>.

This traditional system comprises of various types of medicines including fermented forms, namely Asavas and Arishta's. Fermented dosage forms show high palatability and stability<sup>5</sup>.

Asava and arishta have been used as medicines for over 3000years to treat various disorders and are also taken as appetizers and stimulants. Asava and Arishta's are liquid preparations containing self generated alcohol. Thus contain water soluble as well as alcohol soluble substances of the drugs. Asava and Arishta's were differing each other owing to their difference in method of preparation<sup>6</sup>.

In the current study, an attempt was made to evaluate some marketed Ayurvedic preparations of Asava and arishta for the estimation of alcohol content, P<sup>H</sup> values, total solid content, surface tension and viscosity.

#### MATERIALS AND METHODS

**Collection of samples:** All the sample preparations of Asavas and arishta were purchased from local market Pune. The details of Ayurvedic preparations were given in Table 1.

#### Preliminary evaluation

All Preparations of Asava and Arishta's were evaluated for their preliminary evaluations study<sup>7,8</sup>. This study involves identification of odour, taste and colour. The results have been shown in Table 2.

#### Determination of alcohol content

The deviation in ethanol content in ayurvedic preparations like Asava and Arishta's were stand a critical difficulty to fix their limits as a quality control parameter. By considering this approach to set up its limit over a period of time, the present study was focused on determination of ethanol content of the preparations<sup>9</sup>.

For the estimation of alcohol content, 100 ml of each preparation of Asava and Arishta's were distilled at temperature 78.5°C until content volume was obtained. The yield was calculated as percentage weight by ml basis. The distillations were repeated another two times for each preparation. Values were represented as means of  $\pm$  S.D for there trails.

**Table 1: Preparations of Asava and Arishta purchased from the market**

Sr no	Preparation name and company	Net volume (ml)	Main ingredient	Uses
1.	Ushirasav (Sandu brothers Pvt Ltd, Mumbai)	200ml	Ushira, Balaka, Padma, Gambhari, Patha, Priyangu, Dhataki, Nilotpala, Padmaka, Shati, etc.	Raktpitta, anaemia, piles, skin disorder.
2.	Vasakasava (Sandu brothers Pvt Ltd, Mumbai)	200ml	Vasaka, Guda, Dhataki, Tvak, Ela, Tejapatra, Sunthi, Marich, Pippali, etc.	Kas, kshya, raktapitta.
3.	Punarnaasava (Sandu pharmaceuticals Ltd, Navi Mumbai)	200ml	Shunthi, Marich, Pippali, Haritaki, Bibhitaka, Darvi, Brihati, Kantakari, Vasa, Mula, Eranda Mula, Kataki etc.	Oedema, hyperacidity, udar rog, disorder of yakrit, and spleen.
	Ashokarishta (Shree baidynath Ayurveda, bhavan, Pvt Ltd)	200ml	Ashoka, Guda, Dhataki, Ajaji, Musta, Sunthi, Daruharidra, Utpala, Haritaki, Bibhitaka, Amalaki, Vasa etc.	Excellent, tonic for women. Relieves backache, stomach, headache, debility.
5.	Khadirarishta (Shree baidynath Ayurveda bhavan Pvt Ltd)	200 ml	--	Indicated in all types of skin, diseases and problem associated with it like inflammation, itching, rases, minor boiles etc.
6.	Dashmularishta (Sandu brothers Pvt Ltd)	200ml	Bilva, Syonaka, Gambhari, Patala, Agnimantha, Salaparni, Prisiniparni, Khadira, Devdaru etc.	Vatvikar, convalescence, general debility, loss of appetite.

### Determination of pH

The potential of hydrogen (p<sup>H</sup>) is a numeric scale normally used to denote the basicity or acidity. The P<sup>H</sup> values for each preparation were determined by using digital P<sup>H</sup> meter<sup>10,11</sup>.

### Determinations of total solid content

This method is performed to get information of total solid content present in the preparation<sup>6,12</sup>. The preparation of Asava and Arishta's were taken in pre weighed petri dishes 10ml of each and dried under oven. The total solid content was calculated on percentage weight by ml basis.

Weight of empty Petri dishes = w<sub>1</sub>

Weight of Petri dish +sample = w<sub>2</sub>

Solid content = w<sub>3</sub> = w<sub>2</sub>-w<sub>1</sub>

Percentage total solid content = w<sub>3</sub>/10\* 100

### Determination of density

Density determination by pycnometer is a very precise method. In the present study density of the sample was determined<sup>13</sup>.

### Determination viscosity

The viscosity of liquid is measure of its frictional resistance. in the present study viscosity of all the samples was determined by using Oswald's viscometer<sup>14,15</sup>.

### Determination surface tension

The formed drops flow freely from the capillary, is reliant on the surface tension of liquid. The surface tensions of all samples were determined by using stalagmeter<sup>14,15</sup> (drops weight method).

## RESULT AND DISCUSSION

The purity, quality and standard parameters for ayurvedic preparation should be established to have an edge over Allopathic, Unani, Chinese and other systems of medicine.

The comparative results of Vasakasavsav, Ushiraasav, Punarnasava, Ashokarishta, Dashmularishta and Khadirarishta for all test parameter like Preliminary evaluation given in Table 2 and determination of alcohol content, determination of pH, determinations of total solid content, determination of density, determination viscosity and determination surface tension were given in Table 3.

**Table 2: Preliminary evaluation study of Ayurvedic preparation**

Sr.no	Parameters	Asavas			Arishta's		
		Vasakasavsav	Ushiraasav	Punarnasava	Ashokarishta	Dashmularishta	Khadirarishta
1.	Colour	Brown	Dark brown	Dark brown	Blackish brown	Light brown	Dark brown
2.	Taste	Sweet and bitter	Bitter	Bitter	Sweet and astringent	Sweet	Bitter
3.	Odour	Aromatic	Pleasant	Pleasant	Aromatic	Pleasant	Aromatic

**Table 3: Evaluation study of Ayurvedic preparation**

Sr.no.	Parameters	Asavas			Arishta's		
		Vasakasavsav	Ushiraasav	Punarnasava	Ashokarishta	Dashmularishta	Khadirarishta
1	Total alcohol content(% v/v)	10.2.	8.55	9.54	10.03	1069	10.86
2	Ph determination	4.87	5.02	4.91	4.65	5.11	4.68
3	Density	1.093	1.053	1.034	1.088	1.012	0.996
4	Viscosity(Poise)	2.6786	1.8606	1.9932	3.4852	3.4927	2.0704
5	Surface Tension(dynes/cm)	90.0936	92.130	83.853	97.2778	78.613	68.47
6	Determinations of total solid content	26% w/v	8% w/v	12 % w/v	18 % w/v	28 % w/v	45% w/v

## ACKNOWLEDGEMENT

The authors are thankful to the Prof. S. N. Dhole (Principal Modern College of Pharmacy (Ladies), Moshi, Pune and Prof. P. D. Chaudhari (Principal Modern College of Pharmacy, Nigdi, Pune) for providing facilities to carry out this work.

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### Cite this article as:

Mohini Kuchekar et al. Preliminary studies of some marketed Ayurvedic preparations of Asava's and Arishta's. *Int. Res. J. Pharm.* 2017;8(8):18-20 <http://dx.doi.org/10.7897/2230-8407.088138>

Source of support: Nil, Conflict of interest: None Declared

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