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STANDARDIZATION OF DIFFERENT MARKETED BRANDS OF ASHOKARISHTA: POLYHERBAL AYURVEDIC FORMULATIONS

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ABSTRACT

The present study was planned to evaluate different formulations of Ashokarishta. Four different marketed brands of Ashokarishta was throughly evaluated for their organoleptics properties and physicochemical parameters to establish routine procedure for standardization of these ayurvedic formulations. The Organoleptic properties performed included colour, odour, taste whereas the physicochemical parameters evaluated were pH, specific gravity, viscosity, density, surface tension, alcohol content, total solid content.

KEYWORDS: Ashokaristha, Standardization, Polyhebal formulations, Ayurvedic.

INTRODUCTION

Indian traditional medicinal system is known as Ayurveda and it has been works for thousands of years ago. There are two different unique dosage form known as Asava and Arishta both are generally liquid in nature and consists of indefinite shelf life and it was proposed that the "older the better it is".[1]

Ashokarishta comes under the category of herbal ayurvedic remedy which is formed by autogenous fermented alcohol with Ashoka as major ingredient. This remedy is very popular for female disorders or for menstrual disorder and female hormonal imbalances. It mainly works by nourishing the blood and the reproductive system of female and it also helpfull imbalances female hormone which will not lead to irregular menstrual cycle and transition into menopause.[2]

To assure that the desired herbal products is of acceptable quality, one must make sure that the steps taken from use of raw materials to the identification and verification of final product should be carefully.[3]

Because of effective medicinal value, reliable taste and easily availability this formulation is used by most of the population for a longer period of time and along with this formulation has very negligible side effect. Both asava and arishta occupies a crucible role in the manufacturing and sales in ayurvedic pharmaceutical industries.[4]

The ancient system of medicine which include Ayurveda, Siddha, Unani, system used to be followed by most of the Indian population. Since Ayurveda system of medicine has almost negligible side effect, it is used by most of Indian population for prevention and cure of new disease and it also maintain proper and fit health.[5]

Because of there natural alternatives have importance of ancient herbal formulation like, affordability safety as compared to present systemic drugs. Because of their importance and negligible side effect medicinal plants formulations are used by the public all around the globe for health care.[6]

MATERIALS AND METHODS

Procurement of formulations

Total 4 marketed formulations of Ashokarishta of 4 different brands were purchased from local market of Budh bazaar, Moradabad, U.P., India.

Identification test for alcohol production

5 ml of each sample was taken, to this 0.5% w/v solution of 1M sodium hydroxide was added followed by slow addition of 2 mL of iodine solution, the odour of iodoform was noticed and yellow precipitate was formed which indicated presence of alcohol.[7]

Determination of total solid content

The total solid means the residue obtained when the specific amount of the preparation is dried to constant weight under specified conditions.

10 ml of each sample was placed in a previously dried china dish and was evaporated at a low temperature as possible until the ethyl alcohol was removed and it was heated on a water-

bath until the residue apparently dry. The residue then transferred to an oven and dried at 105˚C.[8]

Determination of viscosity

Internal resistance to the flow of fluid is known as viscosity.

The viscosity of different marketed formulations of Ashokarishta was determined by using Ostwald viscometer. Both bulbs A and B is immersed in a constant temperature bath. Liquid is filled into the viscometer upto mark A to mark B. Then taken specified volume of liquid into the bulb A and sucked the liquid into the bulb B just above the mark X, about half of the bulb A still contain the liquid. The time of flow of the liquid level to fall from the mark X to the mark M was determined. A stopwatch was used to determine the time.[9]

Determination of specific gravity

A specific gravity is the ratio of specific weight of the material to the specific weight of the distilled water.

A specific gravity bottle of 10 ml capacity was cleaned, dried and weighed. It was filled up to the mark with water at the required temperature and weighed. The specific gravity bottle was next filled up to the mark with the sample. The specific gravity was determined by dividing weight of the sample expressed in grams by the weight of the water, expressed in grams.[10]

Determination of density

Density of each sample was determined by using pycknometer.[11]

Determination of alcohol content of different marketed of Ashokarishta

Take not less then 25ml of formulation Ashokarishta was transfered to the distillation flask and its temperature is noted. Content was diluted with equal volume of water, Attach the distillation head and condenser about 2ml less than the total volume collected. Water was added to measure exactely same volume of origin test liquid and adjusted to temperature noted before. Specific gravity of this liquid was determined at 25degree and alcohol content analysed using relative density table given in U.S.P.[12]

Determination of surface tension

Surface tension provides the information regarding the structure of molecule. Surface tensions of all the samples were determined by using Stalagnometer.[13]

RESULT AND DISCUSSION

The selected polyherbal formulations were subjected to various evaluations studies such as; Organoleptic evaluation (Table 1). pH, viscosity, specific gravity, total solid content, alcoholic content, surface tension, density (Table 2). Phytochemical (Screening table 3). The results showed various standards of marketed formulations of Ashokaristha marketed polyherbal formulations which may comply with pharmacopoeial standards.

Table 1: Organoleptic properties of Ashokarishta,

S. No.	Formulations	Appearance	Colour	Taste	Odour
1.	Dabur Ashokarishta	Liquid	Brown	Sour	Pleasant
2.	Zandu Ashokarishta	Liquid	Brown	Sour	Pleasant
3.	Baidhyanath Ashokarishta	Liquid	Dark Brown	Sweet	Pleasant
4.	Patanjali Ashokarishta	Liquid	Dark Brown	Sour	Pleasant

Table 2: Physicochemical paramaters different marketed formulations of Ashokarishta

S. No.	Parameters	Dabur	Zandu	Baidyanath	Patanjali
1.	PH	3.93	3.72	4.13	3.92
2.	Viscosity(cps)	2.344	1.056	3.531	2.46
3.	Specific gravity	1.06	1.09	1.07	0.996
4.	Total solid content(%w/v)	16	32	25	25
5.	Alcohol content(%v/v)	6.24	2.51	2.51	2.51
6.	Surface tension(dynes/cm)	60.566	78.488	60.456	70.544
7.	Density(gm/cm$^{3)}$	1.032	1.04	1.056	1.042

***All the values were average of three readings.**

Table 3: Phytochemical Screening.

Phytoconstituents	Formulations			
	Dabur Ashokarishta	Zandu Ashokarishta	Baidhyanath Ashokarishta	Patanjali Ashokarishta
Carbohydrates	+	+	+	+
Proteins	-	-	-	-
Alkaloids	+	+	+	+
Glycosides	+	+	+	+
Tannins	+	+	+	+
Amino acids	-	-	-	-
Steroids	-	-	-	-
Flavonoids	+	+	+	+

(+) indicates presence; (-) indicates absence.

CONCLUSION

World health organization issued various standardization processes for Ayurvedic formulations to ensure efficacy and quality of drugs. From the above exhaustive study we

concluded that variation in the different standardization parameters of evaluation of marketed polyherbal formulations were may be due to some reasons i.e. sources of herbs or plant, collection period, method of preparation.

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