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STANDARDISATION OF KARPURASAVA

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ABSTRACT: *Asavas and aristhas are medicines prepared by fermentation. In some medicines alcohol produced by fermentation is distilled and added to the powdered drugs for a fixed period, filtered and the filtrate is used as medicines.*

Karpurasava is prepared by distilling the alcohol. The quantity of alcohol in the distillate was 9.87% by the textual method while it was 5.77% by glass distillation apparatus. The alcohol content in Karpurasava was 8.7%.

INTRODUCTION

Asavas and arishtas are ayurvedic medicines prepared by fermentation. The preparation of arishtas is carried out by mixing honey, sugar or jaggery or both in the Kashayam. The Kashayam is prepared by boiling the raw drugs in water. The asavas do not require kashayam because they are based on cold infusions or juices. For fermentation the sealed pots are buried in the ground or husk for a period of one month followed by filteration. The alcohol produced during fermentation extracts the active principles from the ingredients and is also helpful in the shelf life of the product (Anonymous 1978).

In some of the medicine of this group such as Mrtasanjivinisura and Karpurasava prasanna which is distilled alcohol from fermented solution is added to powdered drugs, kept for some time and then filtered (Anonymous 1978). A study is undertaken to lay done standards for Karpurasava.

MATERIALS AND METHODS

Preparation of Prasanna

The following ingredients were used for the preparation of prasanna in accordance with the process given in Kadambari madya (Bhava prakasam p.732).

1.	Sashitka (Navarai Rice)	1 part
2.	Yavadhanya	1 part
3.	Haritaki	1 part
4.	Guda	1 part
5.	Kadali (Plantain)	10 Numbers

Cooked yavadhanya was mixed with Haritaki decoction. The powdered sashitka was added followed by guda and mashed plantain. This brew was kept for fermentation for 5 days.

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Distillation

The alcohol was distilled by bakayantra process. This constituted the prasanna.

Part of the fermented brew was also distilled using glass distillation apparatus to compart alcohol in the product from baka yantra method.

Preparation of Karpurasava

The followed powdered drugs were mixed in 2.4 litre of prasanna and kept for 7 days followed by filtration.

1.	Udupati (Camphor)	192 g
2.	Elasuksna (Cardamom seed)	24 g
3.	Ghana (Nut grass tubers)	24 g
4.	Srngavera (Dry ginger)	24 g
5.	Yamanika (Ajwan)	24 g
6.	Vellaja (Black pepper)	24 g
7.	Prasanna	2.4 litre

Analytical methods

pH was determined by pH paper. Specific gravity, total solid and alcohol were determined as reported (Alam *et al* 1977).

RESULTS AND DISCUSSION

The alcohol content of prasanna obtained by glass distillation and bakayantra process are summarized in Table.1. The alcohol content was almost double in the bakayantra method. This was due to partial distillation of contents whereas in glass apparatus about $3/4^{th}$ of the quantity taken was distilled out. In bakayantra method the quantity of distillate was not visible and it was difficult to judge the distilling of the material.

The final produce of karpurasava was pinkish yellow in colour. The analytical values are summarized in Table 2. Specific gravity of the medicine was 0.995 and the alcohol content was 8.7%. The quantity alcohol in the final produce depends upon the quantity of alcohol in prasanna. The pharmacopoeial standards for Ayurvedic formulations (Anonymous 1987) records the alcohol content to be 84 – 89%. Here this high content is due to use of rectified spirit as prasanna. The Ayurvedic Formulary of India part I (Anonymous 1978) permits the use of rectified spirit as the substitute for prasanna. Our observations have shown that in asavas and arishtas the maximum alcohol content is 10% (Alam et al 1977). The present concentration of alcohol (8.7%) in Karpurasava is in agreement with the asavas and arishtas.

We can conclude that the quantity of alcohol in the Karpurasava depends upon the distillation of alcohol from prasanna. The 3 batches prepared by us have shown the average value 9.82%. So in the final product the alcohol content can not be expected to be more than 10%.

TABLE 1

Analytical values of Prasanna distilled by textual and glass distillation methods (Values are averages of 3 batches)

Parameters	Glass distillation	Textual method
Alcohol % (V/V)	5.77	9.82
Refractive index	1.3402	1.3770

TABLE 2

Analytical values of Karupurasava

Parameter pH	Valves 4.3 – 4.6
Sp. Gravity	0.9950
Total solid content % (W/W)	0.62
Alcohol % (V/V)	8.7

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