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ANALYTICAL EVALUATION OF KASISA DRAVA

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ABSTRACT

The herbal and mineral preparations are a significant part of worldwide clinical practice. There is a well-established sub-discipline known as “Rasa Shastra and Bhaishajya Kalpana”, which is entirely devoted to drug processing. Many unique classical techniques of preparation are still unexplored. Kaseesa Drava is one such preparation. the use of metallic-mineral preparations in clinical practice has raised safety concerns and debates in the scientific community.

KEYWORDS: Kaseesa, Kaseesa Drava.

INTRODUCTION

Analytical experimentation plays a significant role in developing a new drug. To make drugs serve their purpose, various analytical procedures are developed. The medicines will influence the body only if they are free from impurities and are administered in appropriate doses. From the stages of drug development to marketing, be it understanding the physical or chemical stability of the drug, impact on the selection and design of the dosage form, assessing the strength of drug molecules, quantization of the impurities, and identification of those impurities which are above the established threshold essential to evaluate the toxicity profiles of these impurities,

when applicable assessing the content of drug in the marketed products are the crucial areas of the analytical procedures.

Ayurveda medicines are serving the needs of ailing humanity for many centuries. There is a need for systemic and well-organized coordination of allied sciences and adequate infrastructure and facilities to use Ayurvedic medicines in the modern era. For this purpose, there is a need for the analytical study of the drugs that are produced. This can help in the standardization of the drug and ensure that the drug gives appropriate action.

MATERIALS AND METHODS

Analytical study

The analytical study is carried out at S.D.M. Centre for Research in Ayurveda and Allied Sciences, Udupi.

Assessment of organoleptic characters

Organoleptic characters of *Kasisa Drava* were noted using sensory organs.

Physicochemical analysis

1. **Refractive index**[1]

Helps to determine the angle of refraction in the given sample of the drug.

Procedure

Placed a drop of water on the prism and adjusted the drive knob in such a way that the boundary line intersects the separatrix exactly at the center. Noted the reading. Distilled water has a refractive index of 1.33217 at 28^{o} C. The difference between the reading and 1.3320 gives the error of the instrument. If the reading is less than 1.3325, the error is minus (-) then the correction is plus (+) if the reading is more, the error is plus (+) and the correction is minus (-). The correction if any should be applied to the measured reading to get the accurate refractive index. The Refractive index of the test samples was measured at 28^{o} C.

Specific Gravity[2]

Principle: The specific gravity of a liquid is the weight of a given volume of the liquid at 25°C compared with the weight of an equal volume of water at the same temperature, all the weightings being taken in air.

Procedure

Cleaned a specific gravity bottle by shaking with acetone and then with ether. I dried the bottle and noted the weight. Cooled the sample solution to room temperature. Carefully filled the specific gravity bottle with the test liquid, inserted the stopper, and removed the extra fluid. The weight was noted. The procedure is repeated using distilled water in place of the sample solution.

pH[3]

Principle: pH is defined as the negative logarithm of H+ ion concentration. It deals with the concentration of H+ ion or H3O+ (hydronium) ion concentration. It can be calculated only after dissociation of an acid or alkali; hence dissolution of the substance in water should determine p^H.

Procedure

Preparation of standard buffer solution: Dissolved one tablet of pH 4, 7, and 9.2 in 100ml of distilled water.

1ml of the sample was taken and makeup to 10ml with distilled water stirred well and filtered. The filtrate was used for the experiment. The instrument was switched on. Thirty minutes were given for warming the pH meter. The pH four solution was first introduced, and the pH was adjusted by using the knob to 4.02 for room temperature 30°C. The pH seven solution was introduced, and the pH meter was adjusted to 7 by using the knob. Introduced the pH 9.2 solution and checked the pH reading without adjusting the knob. Then the sample solution was introduced, and reading was noted. Repeated the test four times, and the average reading was taken as a result.

RESULTS AND DISCUSSION

The results obtained after assessing the organoleptic characters are tabulated.

S.no	Parameters	*Kasisa Drava*
01.	Colour	Greenish
02.	Taste	Bitter, sour
03.	Odor	*Eclipta alba* odor
04.	Consistency	Liquid

Results of analytical study

Parameter	Results
Refractive index	1.33967
Specific gravity	1.0186
P^H	5.0

DISCUSSION

p^H value fundamentally represents the value of hydrogen ion activity in solutions. It mainly denotes the acidity or alkalinity of an aqueous solution. It is crucial from the standpoint of stability or physiological suitability. The pH of Kaseesa Drava was found to be 5.0, which indicates its slightly acidic nature. The presence of acidic pH in Kaseesa Drava enhances antimicrobial activity. A Refractive index is the measure of the bending of a ray of light when passing from one medium into another. The refractive index of Kaseesa Drava was found to be 1.33967, which indicates the density and concentration of the solute in the formulation. The specific gravity of a liquid is the weight of a given volume of the liquid at 25°C compared with the weight of an equal volume of water at the same temperature, all the weightings being taken in air. It was found to be 1.0186, which denotes the content of the solute in the sample.

CONCLUSION

Kaseesa is one of the rasa dravyas used in Visha, Vata-Kapha conditions, Vrana, Shwitra, and Kshaya. The data evolved from the analytical study helps in standardizing the formulation to maintain its quality and efficacy.

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