



An evaluation of physicochemical and phytochemical analysis of Siddha poly herbal formulation Sundii chooranam.

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Abstract

Aim and objective:

The aim of the study is to evaluate the Physicochemical and Phytochemical Analysis of Siddha Poly Herbal Formulation Sundii Chooranam (SC).

Materials and methods:

Siddha system of medicine is the traditional system, which was found by Siddhars who believe the art of immortal corporeal human body. Sundii Chooranam is one the Siddha drug chosen from Anubava Vaidhiya Devaragasiyam, Page No. 424 which is indicated for Vathanoigal (Musculo-Skeletal disease). The drug prepared as per the method mentioned in the classical Siddha literature. The drug is subjected to physico chemical analysis such as total ash, loss on drying, total ash etc and phytochemical analysis as per the pharmacopeia laboratory standards of Indian medicine.

Results and Conclusion:

Through this method Organoleptic characters, pH, Ash (%), Acid Insoluble ash (%), Water soluble extractive (%), Loss on drying (%), Alkaloids, Carbohydrates, Glycosides, Saponins, Phenols, Phytosterols, Triterpenes, Flavanoids, Proteins and amino acids, Quinones, shows the presence or absence of this constituents. The organoleptic character of a trail drug shows the nature of drug colour, texture and other morphology.

Keywords: Physico-Chemical, Phyto-chemical Analysis, Siddha Medicine, Sundii Chooranam

Introduction

Nature is a remedy for human ailments that have been diverged around the World. Siddha system is unique among the Indiansystem of medicine. It is believed to have been developed by the siddhar's the ancient supernatural spiritual saints of India. In Siddha system of medicine the drug sources are obtained from plant, mineral, metal and animals. Siddhars were considered as superhuman who defines the age, laws of nature, to which all human being.

Herbal drugs have been used widely in many countries because of its availability, less cost effectiveness and safer than the synthetic drugs [2]. Siddha drugs have been practiced by ancient times without any standardization techniques. It required standardization for globally acceptance. Thus I have preferred to choose Sundii chooranam was taken as a trial drug for vathanoigal from the Siddha literature Anupava Vaidhiya Deva Ragasiyam.

Aim and Objective:

The aim of this study is to do Physico chemical analysis and phyto chemical analysis for the drug 'Sundii chooranam'.

Materials and Methods

Collection of the plant materials:

All the raw materials were bought from the Pandian Drug Stores, Tirunelveli Market, Tirunelveli.

Identification and authentication of the drug:

All the plant materials were identified and authenticated by the Botanists in Government Siddha Medical College, Palayamkottai, Tirunelveli.

Results and Discussion

Purification of the drugs:

All the drugs mentioned here were purified as per the Siddha literature.

Chukku - Outer skin of ginger was peeled off.

Poondur - Outer skin of garlic was peeled off and gently fried with ghee.

Preparation of the drug:

Procedure:

Purified raw drugs are made into fine powder separately and mixed together homogenously then it is filtered in pure white cloth.

Administration of the drug:

Form of the medicine : Chooranam.

Route of administration : Oral (2gm twice a day).

Adjuvant : Hot water.

Physicochemical analysis:

The sample is tested for the following parameters as per the guidelines followed by WHO. Loss on drying at 105° C, Total ash, Acid-insoluble ash, Water soluble extractive, Alcohol soluble extractive, pH (10% aqueous solution), Swelling index, Foaming index, Volatile oil, Total fat.

Phytochemical analysis:

Phytochemical screening of the extract gives general idea regarding nature of chemical constituents present in the crude drug.

Table-1 Organoleptic characters of SC

Colour	Brown
Odour	Typical
Taste	Spicy
Texture	Fine Powder

Table - 2 Result of physicochemical parameters:

S No	Parameters	Results
1	Loss on drying	12.09%
2	Total ash	3.22%
3	Acid insoluble ash	1.33%
4	Water soluble extractive	22.35%
5	Alcohol soluble extractive	6.79%
6	pH	5.8
7	Swelling index	2.5ml
8	Foaming index	1.0
9	Volatile oil	0.50%
10	Total fat	1.02%
11	Sulphated ash	33.11%

Interpretation:

The physicochemical analysis of the drug result reveals the pH, Acid soluble ash, and alcohol insoluble extractive and water insoluble extractive (Table no 2).

Phytochemical analysis:**Table-3 Phytochemicals screening test:**

Phytochemicals	Result
1. Alkaloids	Absent
2. Carbohydrates	Present
3. Glycosides	Absent
4. saponins	Present
5. Phenol	Absent
6. Phytosterols	Absent
7. Triterpenes	Absent
8. Flavanoids	Present
9. Proteins and Amino Acids	Absent
10. quinones	Absent

Interpretation:

The phytochemical analysis shows the presence of carbohydrates, flavonoids and saponins (Table no 3).

Conclusion

In the present study of Sundii chooranam were thoroughly investigated for their physicochemical and phytochemical characters to analyse their safety, quality and standardization for their use.

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