
INTERNATIONAL JOURNAL OF CURRENT RESEARCH IN BIOLOGY AND MEDICINE

ISSN: 2455-944X

www.darshanpublishers.com

DOI:10.22192/ijcrbm

Volume 3, Issue 6 - 2018

Original Research ArticleDOI: <http://dx.doi.org/10.22192/ijcrbm.2018.03.06.003>

Standardization of Physico-chemical And Bio chemical Analysis of Vedi Annabethi Chenduram

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Abstract

Siddha metal formulation Vedi Annabethi Chenduram indicated as a best choice of drug to treat Anaemia, Jaundice, Dropsy and Ascities. Vedi Annabethi Chenduram was evaluated for its physico-chemical and bio-chemical analysis.

Keywords: Vedi Annabethi Chenduram, physico-chemical and bio-chemical analysis.

Introduction

Siddha System is one of the oldest conventional systems in the world. Siddha system not only helps to treat human diseases and also helps to attain soul satisfaction. The usage of heavy metals in Siddha system of medicine having some queries regarding the threatening effects of those metals which are in use though metallic Siddha medicinal formulations. Vedi Annabethi Chenduram is a metallic formulation cited in Gunapadam Thathu Jeevam prepared through the special oxidation procedure involving purified form of minerals processed under herbal juice. Numerous medicinal plants and their formulations are used for liver disorders in medical practice as well as traditional system of medicine in India.

Materials and Methods

Details regarding the sample

Vedi Annabethi Chenduram is a metal formulation which is indicated as a drug in Siddha text Gunapadam Thathu Jeevam for the treatment of Anaemia, Jaundice, Dropsy and Ascities. The ingredients of Vedi Annabethi Chenduram are two in number. They are Iron sulphate and Potassium nitrate. The drug was prepared as per the text.

Details regarding Physico-chemical Analysis

Organoleptic character

The organoleptic characters of the sample drug were evaluated. 1 gm of VABC was taken and the colour, texture, [particle size and other morphology were viewed by naked eye under sunlight. Then the result was noted.

Physico- chemical Investigation

Physico - chemical investigations like p^H value, loss on drying at $105^{\circ}C$ action on heat and Ash test have been done as per the guidelines of WHO.

pH value

Potentiometrically p^H value determined by a glass Electrode and a suitable p^H meter.

Loss on drying

The powdered drug is dried in the oven at $100-105^{\circ}C$ to constant weight.

Results and Discussion

Table 1. Physico- chemical Analysis of sample of VABC

Parameters	Total Ash	Values
Ash value	Water soluble ash	3.90 +0.040
	Acid insoluble ash	1.70+ 0.010
Extractive value	Ethanol soluble extractive value	7.80+ 0.500
	Water soluble extractive value	9.00+ 0.500
Loss on drying Ph analysis	Loss on drying at $70^{\circ}C$	8.50 + 0.510 6.7

Table 2. Biochemical test for vedi annabethi chenduram

S.No	Experiment	Observation	Inference
01	Test for calcium: 2ml of the above prepared extract is taken in a clean test tube. To this add 2ml of 4% Ammonium oxalate solution.	No White precipitate is formed	Indicates the Absence of calcium
02	Test for sulphate: 2ml of the extract is added to 5% Barium chloride solution.	A white precipitate is formed	Indicates the Presence of sulphate
03	Test for chloride: The extract is treated with silver Nitrate solution	A white precipitate is formed	Indicates the Presence of chloride
04	Test for carbonate: The substance is treated with Concentrated HCl.	No brisk Effervescence is formed	Absence of carbonate
05	Test for starch: The extract is added with weak Iodine solution	No blue colour is formed	Absence of starch

Action on heat

A small amount of the sample is taken in a dry test tube and heated gently. If strong white fumes evolve the presence of carbonate.

Ash test

A filter paper is soaked into a mixture of sample and cobalt nitrate and introduced into the Bunsen flame and ignited. Appearance of yellow colour flame indicates the presence of sodium.

Details regarding Biochemical Analysis

The Bio chemical Analysis was done to identify the acid and basic radicals present in the VABC.

06	Test for iron ferric: The extract is acidified with Glacial acetic acid and Potassium ferrocyanide.	No blue colour is formed	Absence of Ferric Iron
07	Test for phosphate: The extract is treated with Concentrated Nitric acid and Ammonium thiocyanate solution.	Yellow precipitate is formed	Indicates the Presence of Phosphate
08	Test for tannic acid: The extract is treated Ferric Chloride.	No blue black Precipitate is formed	Absence of Tannic acid.
09	Test for unsaturation: Potassium permanganate solution is added to the extract.	It does not gets decolourised	Absence of unsaturated
10	Test for the reducing sugar: 5ml of Benedicts qualitative Solution is taken in a test tube and allowed to boil for 2mts and added 8-10 drops of the extract and again boil it for 2mts.	Colour changes occurred.	Indicates the Presence of Reducing sugar.
11	Test for amino acid: One or two drops of the extract is Placed on a filter paper and dried It well. After drying, 1% Ninhydrin is sprayed over the Same and dried it well.	Violet colour formed	Indicates the Presence of Amino Acid
12	Test for zinc: The extract is treated with Potassium Ferrocyanide.	No white precipitate Is formed	Absence of Zinc

Conclusion

Table 1 shows the physicochemical nature of the *Vedi Annabathi Chenduram*. Table 2 shows the Biochemical analysis exhibits the presence of Sulphate, Chloride, Phosphate, Reducing sugar, Amino acid. And also the absence of Calcium, Carbonate, Ferric iron, Tannic Acid, Unsaturated, Zinc.

Acknowledgments

The authors wish to thank The Vice Chancellor, The Tamilnadu Dr. MGR Medical University, Gunidy, Chennai and to Indian Medicine And Homoeopathy Department, Arumbakkam, Chennai and specially thank to the Principal, Government Siddha Medical College Palayamkottai.

I represent my heartfelt thanks to Mr. A. Senthivel M.B.A for his kind co-operation and valuable Guidance.

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	Subject: Siddha Medicine
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How to cite this article:

Sundari S , Thiruthani M. (2018). Standardization of Physico-chemical And Bio chemical Analysis of Vedi Annabethi Chenduram. Int. J. Curr. Res. Biol. Med. 3(6): 8-11.

DOI: <http://dx.doi.org/10.22192/ijcrbm.2018.03.06.003>