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

Sundari S*1, Thiruthani M* 2

1PG Scholar Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt. Siddha Medical College, Palayamkottai, Tamilnadu, India.
2HOD Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt. Siddha Medical College Palayamkottai, Tamilnadu, India.

Corresponding author : Dr. S. Sundari PG Scholar Department of Nanju Noolum Maruthuva Neethi Noolum (Siddha Toxicology) Govt. Siddha Medical College, Palayamkottai, Tamilnadu, India.
E-mail: 22mardrsundari@gmail.com

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 it’s physic chemical and bio chemical analysis.

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

Introduction

Siddha System is one of the oldest conventional system in the world. Siddha system not only helps to treat the 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 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, article size and other morphology were viewed by naked eye under sunlight. Then the result was noted.
Physico-chemical Investigation

Physico - chemical investigations like pH value, loss on drying at 105 °C action on heat and Ash test have been done as per the guidelines of WHO.

pH value

Potentiometrically pH value determined by a glass Electrode and a suitable pH meter.

Loss on drying

The powdered drug is dried in the oven at 100- 105 °C to constant weight.

Results and Discussion

Table 1. Physico-chemical Analysis of sample of VABC

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Total Ash</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ash value</td>
<td>Water soluble ash</td>
<td>3.90 ±0.040</td>
</tr>
<tr>
<td></td>
<td>Acid insoluble ash</td>
<td>1.70 ± 0.010</td>
</tr>
<tr>
<td>Extractive value</td>
<td>Ethanol soluble extractive value</td>
<td>7.80 ± 0.500</td>
</tr>
<tr>
<td></td>
<td>Water soluble extractive value</td>
<td>9.00 ± 0.500</td>
</tr>
<tr>
<td>Loss on drying</td>
<td>Loss on drying at 70 °C</td>
<td>8.50 ± 0.510</td>
</tr>
<tr>
<td>Ph analysis</td>
<td></td>
<td>6.7</td>
</tr>
</tbody>
</table>

Table 2. Biochemical test for vedi annabethi chenduram

<table>
<thead>
<tr>
<th>S.No</th>
<th>Experiment</th>
<th>Observation</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>Test for calcium: 2ml of the above prepard extract is taken in a clean test tube. To this add 2mlof 4% Ammonium oxalate solution.</td>
<td>No white precipitate is formed</td>
<td>Indicates the absence of calcium</td>
</tr>
<tr>
<td>02</td>
<td>Test for sulphate: 2ml of the extract is added 5% Barium chloride solution.</td>
<td>A white precipitate is formed</td>
<td>Indicates the presence of sulphate</td>
</tr>
<tr>
<td>03</td>
<td>Test for chloride: The extract is treated with silver Nitrate solution</td>
<td>A white precipitate is formed</td>
<td>Indicates the presence of chloride</td>
</tr>
<tr>
<td>04</td>
<td>Test for carbonate: The substance is treated with concentrated HCl.</td>
<td>No brisk Effervescence is formed</td>
<td>Absence of carbonate</td>
</tr>
<tr>
<td>05</td>
<td>Test for starch: The extract is added with weak Iodine solution</td>
<td>No blue colour is formed</td>
<td>Absence of starch</td>
</tr>
</tbody>
</table>
| Test for iron ferric:  
The extract is acidified with Glacial acetic acid and Potassium ferrocyanide. | No blue colour is formed | Absence of Ferric Iron |
| Test for phosphate:  
The extract is treated with Concentrated Nitric acid and Ammonium thiocyanate solution. | Yellow precipitate is formed | Indicates the Presence of Phosphate |
| Test for tannic acid:  
The extract is treated Ferric Chloride. | No blue black Precipitate is formed | Absence of Tannic acid. |
| Test for unsaturation:  
Potassium permanganate solution is added to the extract. | It does not get decolourised | Absence of unsaturated |
| Test for the reducing sugar:  
5ml of Benedict's qualitative Solution is taken in a test tube and allowed to boil for 2 minutes and added 8-10drops of the extract and again boil it for 2 minutes. | Colour changes occurred. | Indicates the Presence of Reducing sugar. |
| Test for amino acid:  
One or two drops of the extract is placed on a filter paper and dried. After drying, 1% Ninhydrin is sprayed over the same and dried it well. | Violet colour formed | Indicates the Presence of Amino Acid |
| 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 annabithi 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, Guindy, 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.
References

2. K.S.Murugesu Mudhaliar, Gunapadam mooligai vaguppu 3
3. T.V.Sambasivam pillai, The research institute of siddhar’s science vol.1
5. Text book of Pathology Harsh mohan sixth edition
6. Iron compounds and their preparations, inorganic pharmaceutical chemistry.
7. Siddha material Dr.Anaivaari anandhan Ph.D, Dr.M.Thulasi mani MD(Pharm)
8. Apurba Nandy principles of forensic medicine including Toxicology Third edition

Access this Article in Online

Website:
www.darshanpublishers.com

Subject:
Siddha Medicine

How to cite this article:
DOI: http://dx.doi.org/10.22192/ijcrbm.2018.03.06.003