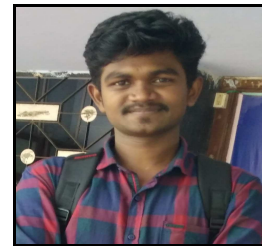


Asian Journal of Research in Biological and Pharmaceutical Sciences

Journal home page: www.ajrbps.com

<https://doi.org/10.36673/AJRBPS.2020.v08.i01.A04>



BIOCHEMICAL ANALYSIS OF SIDDHA DRUG SARVANOI ARIRASA CHENDHURAM

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ABSTRACT

Siddha system of the medicine is the most primitive among all other medical system which was practiced in India particularly in Tamilnadu. In siddha system of traditional medicine minerals and animal product are used as main drug to treat various dreadful diseases. Standardization of siddha preparations is of most important task to establishing the active components of drug for its biological activity. The main aim of the study was to evaluate the Biochemical analysis of the trial drug *SarvanoI Arirasa chendhuram* and it indicates the presence of calcium, Sulphate, chloride, ferrous iron, unsaturation compound, aminoacid which revealed the enhancement of therapeutic action in vadha, pittha and kaphadiseases.

KEYWORDS

Siddha medicine, Standardization, Biochemical Analysis, *SarvanoI Arirasa chendhuram*, vathapitha and kapha disease.

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INTRODUCTON

Siddha system is a trational system of medicine with the oldest holistic management and meticulously documented the medicine and it is being practiced by the large population in south India. This system of medicine is unique among the other Indian system of medicines, because it is believed to have been developed by the great siddhars, the ancient supernatural spiritual saints in India.

However the siddha medical system comprises the three major divisions as plant kingdom, animal kingdom and inorganic compounds. Then the inorganic compounds have four subunits such as Metals (Ulogam)-11, Minerals (karasaram)-25, January – March

Hydrochemicals (Uparasam)-120 and Toxic substances (Pasanam)-64.

In siddha system, metallic preparations are used to cure many challenges diseases. Before preparations of medicine each drug must be purified to remove the impurities. So this *Sarvanoir arirasa chendhuram* is a most wonderful herbo metallic preparation. Its cure all type of vatha, pitha and kapha diseases, fever, tonsillitis, all type of pain. In siddha system most of the medicines are effective, so there is a need to need to develop standardization technique¹⁻⁴.

MATERIAL AND METHODS

100gm of *Sarvanoir Arirasa Chendhuram* is weighted accurately and placed into a clean beaker and added a few drops of Conc. Hydrochloric acid and evaporated it well. After evaporation cooled the content and added a few drops of Conc. Nitric acid and evaporated it well. After cooling that content add 20ml of distilled water and dissolved it well. Then it is transferred to 100ml volumetric flask and made up 100ml with distilled water and mix well, filter it. Then it is taken for analysis.

Collection, Identification and Authentication of the Drug

The required raw drugs were purchased from a well reputed country shop. They metals and minerals are identified and authenticated by Associate professor

Dr. kingsly M.D (S), HOD, Department of PG Gunapadam, and plants are authenticated by Botanist of CCRS, Government Siddha Medical College, Palayamkottai.

Purification of the Drug

All the ingredients of this herbal, metal and mineral formulation were purified according to the proper preparation methods described in Siddha Classical Literature.

Preparation of the Medicine

Each purified ingredients powdered separately and mixed together, above mention juice taken separately and triturated with each juice for 3 hours respectively, Then dried under sunlight. Dried material put in to the glass bottle. The glass bottle put into the mudpot. There after the mudpot burned with kamalakkini for 72 hrs and allow to cool for 1 day, finally take the chendhuram from the bottle.

Biochemical analysis

Screening the drug *Sarvanoir Arirasa chendhuram* to analysis for the Biochemical properties present in the ingredient.

Chemicals and drugs

The chemicals used in this study were of analytical grade obtain from Department of Biochemistry, Government Siddha Medical College, Palayamkottai.

Table No.1: Ingredients of Sarvanoir Arirasa Chendhuram

S.No	Drug	Scientific name	Quantity
1	Rasam	Mercury	6 Palam (210 gm)
2	Kandhagam	Sulphur	6 Palam (210 gm)
3	Ularantha Lingam	Cinnabar	1. 1/2Palam (52. 1/2 gm)
4	Aritharam	Arsenic trisulphate	8 Palam (280 gm)
5	Manosilai	Arsenic disulphate	2. 1/2 varagan (8.3/4 gm)

Table No.2: Details of Drug and Use

S.No	Drug	Botanical Name	Family	Part Used
1	Erukku	<i>Calotropis gigantean</i>	Apocyanaceae	Milk
2	Poovarasu	<i>Thespesia populnea</i>	Malvaceae	Bark
3	Thumbai	<i>Leucas aspera</i>	Lamiaceae	Leaf
4	Siruseruppadai	<i>Glinuslotoides</i>	Aizoaceae	Whole plant
5	Semulli	<i>Barleriaprionitis</i>	Acanthaceae	Leaf
6	Mathulai	<i>Punicagranatum</i>	Lythraceae	Leaf
7	Mathulai	<i>Punicagranatum</i>	Lythraceae	Flower
8	Murunkai	<i>Moringa oleifera</i>	Moringaceae	Flower

RESULTS:

Table No.3: Qualitative Analysis

S.No	Experiment	Observation	Inference
1	TEST FOR CALCIUM: 2ml of the above prepared extract is taken in a clear test tube. To this add 2ml of 4% Ammonium oxalate solution.	A white precipitate is formed.	Indicates the presence of calcium.
2	TEST FOR SULPHATE: 2 ml of the extract is added to 5% barium chloride solution.	A White precipitate is formed.	Indicates the presence of sulphate.
3	TEST FOR CHLORIDE: The extract is treated with silver nitrate solution.	A White precipitate is formed.	Indicates the presence of chloride.
4	TEST FOR CARBONATE: The substance is treated with concentrated Hcl.	No brisk effervescence is formed.	Absence of carbonate.
5	TEST FOR STARCH: The extract is added with weak iodine solution.	No blue color is formed.	Absence of starch.
6	TEST FOR IRON FERRIC: The extract is acidified with glacial acetic acid and potassium ferro cyanide.	No blue color is formed.	Absence of ferric iron.
7	TEST FOR IRON FERROUS : The extract is treated with concentrated Nitric acid and ammonium thio cyanide solution.	Blood red color is formed.	Indicates the presence of ferrous iron.
8	TEST FOR PHOSPHATE: The extract is treated with ammonium molybdate and concentrated nitric acid.	No yellow precipitate is formed.	Absence of phosphate.
9	TEST FOR ALBUMIN: The extract is treated with Esbach's reagent.	No yellow precipitate is formed	Absence of albumin.
10	TEST FOR TANNIC ACID: The extract is treated with ferric chloride.	No blue black precipitate is formed.	Absence of tannic acid.
11	TEST FOR UNSATURATION: Potassium permanganate solution is added to the extract.	It gets decolourised.	Indicates the presence of unsaturation compound.
12	TEST FOR THE REDUCING SUGAR: 5 ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 mins and add 8 – 10 drops of the extract and again boil it for 2 mins.	No color change occur.	Absence of reducing sugar.
13	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 color is formed.	Indicates the presence of Amino acid.
14	TEST FOR ZINC: The extract is treated with potassium ferrocyanide.	No white precipitate is formed.	Absence of zinc.

DISCUSSION

The Bio chemical analysis of the trial drug *Sarvano* *Arirasa chendhuram* was tabulated above in Table No.3.

The trial drug *Sarvano* *Arirasa chendhuram* contains

1. Calcium
2. Sulphate
3. Chloride

CONCLUSION

Sarvano *arirasa chemdhuram* is a siddha drug taken from a siddha literature used in the treatment of All type of vatha, pittha and kapha diseases, venereal diseases, tosilitis and all type of pain, so further pharmacological analysis are needed to evaluate and potency of the drug.

ACKNOWLEDGEMENT

The authors sincerely thank to Management, HOD of the Department, Department of Nanju Maruthuvam, Govt Siddha Medical College, Palayamkottai, Tamilnadu, India for providing the facilities necessary to carry out the research work.

4. Ferrous ion
5. Unsaturated compound
6. Amino acid

Mode of action of the trial drug *Sarvano* *Arirasa chendhuram* which treat the all types of vathapittha and kapha diseases. Maybe due to the presence of calcium, Sulphate, chloride, unsaturated compound, Amino acid and Ferrous Iron in it.

CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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Please cite this article in press as: M. Siva et al. Biochemical Analysis of Siddha Drug *Sarvano* *Arirasa Chendhuram*, Asian Journal of Research in Biological and Pharmaceutical Sciences, 8(1), 2020, 20-23.