

**BIOCHEMICAL ANALYSIS OF SIDDHA POLYHERBAL DRUG *KARAPPAN KUDINEER CHOORANAM***

**Dr. Ammu A.\*<sup>1</sup>, Anitha E.<sup>2</sup> and Soundararajan D. K.<sup>3</sup>**

<sup>1,2</sup>PG Scholar, Department of Kuzhanthai Maruthuvam

<sup>3</sup>Head of the Department of Kuzhanthai Maruthuvam Government Siddha Medical College Palayamkottai, Tirunelveli.

Received on: 29/04/2019

Revised on: 19/05/2019

Accepted on: 09/06/2019

\*Corresponding Author

**Dr. Ammu A.**

PG Scholar, Department of  
Kuzhanthai Maruthuvam.

**ABSTRACT**

The Tamils are incomparably intellectuals in all spheres of like literature, architecture, agriculture, music, astronomy, etc. but the pinnacle of their knowledge is expressed in their medicine which is called as Siddha Medicine. The basic theory of Siddha system of medicine is 'food is medicine - medicine is food'. The human body is a composite of three humors such as *vatham*, *pitham*, *kapam* and several physical mechanism such as *saaram*, *seneer*, *unn*, *kollzupu*, *enbu*, *moolai* and *sukilam*. The food is considered to be fundamental building material of human body, which gets administered into humors, tissue and wastes. The evenness of humors body tissues and waste products is studied as health and its imbalance leads to diseases or pathologic state this system also deals with the thought of immortality and salvation in this life. The exponents of, this state is possible by controlled diet, medicine and possessing of mind by yogic or spiritual exercises like medication and yoga. Siddha system deals the different type of skin disease with a wide range of drugs. Among various type of skin disease "*SATTAI KARAPPAN* (Atopic Dermatitis)" cases vulnerably affecting among the pediatric community. The aim of the study was qualitative analysis of *Karappan Kudineer Chooranam*, Siddha drug taken from a Siddha Literature. The Biochemical analysis of the trial drug indicates the presence of Calcium, Sulphate, Starch, unsaturated compound, amino acid revealed the enhancement of therapeutic action in skin diseases.

**KEYWORDS:** *Sattai Karappan*, *Karappan Kudineer Chooranam*, Atopic Dermatitis, Biochemical Analysis.

**INTRODUCTION**

Siddha defined as 96 principles as the constituents of human being, they comprise physical, physiological, mental and intellectual mechanisms of a person. They are nothing but the mineralizations of the 'Five basic elements'. Such as *mun*, *neer*, *theyu*, *vayu* and *aakayam*, these five elements are present in every substance, but in different proportions earth, water, fire, air and ether are manifestations of these five elements, only on the basis of the combination of panjaboothic elements, siddhars, evolved the *mukutra* theory namely *vatham*, *pitham* and *kabam*. They are selected the drugs to treat the diseases by knowing the selected the drugs to treat the diseases by knowing the taste of the drugs and combination of the elements and knowing the vitiated *thathu* in such a manner that is not only subside the pathological signs and symptoms but also rectify the root cause like deranged *thathus* are try to maintain the equilibrium of the *mukutra* in the body. On the basis of our Siddha text the disease "*Sattai Karappan*" in *Balavagadam* is intercorrelated with atopic dermatitis. The drug from Siddha literature (Gunapadam Mooligai) *Karappan*

*Kudineer Chooranam* is analysed for the biochemical composition.

**MATERIALS AND METHODS**

***Karappan Kudineer Chooranam* Ingredients**

**Table 1:**

S. No.	Drug Name	Botanical Name
1	<i>Senkathari pattai</i>	<i>Capparis sebiaria</i>
2	<i>Milagu</i>	<i>Piper nigrum</i>
3	<i>Chinni Ellai</i>	<i>Acalypha fruticosa</i>
4	<i>Sirukurinjan ver</i>	<i>Gymnema sylvestre</i>

**Collection, Identification and Authentication of the Drug**

The required raw drugs were purchased from a well reputed country shop, Nellai town, Tirunelveli.. They were identified and authenticated by Botanist of Government Siddha Medical College, Palayamkottai.

**Purification of the Drug**

All the ingredients of this herbal formulation were purified according to the proper produce methods described in Siddha Classical Literature.

**Preparation of the drug**

All the ingredients are grind into coarse powder. Then the mixture of powder 100gm is mixed with 800ml of water and boil it into 100ml, then filter it.

**Biochemical analysis**

Screening the drug *Karappan Kudineer Chooranam* to identify the Biochemical properties present in the ingredient.

**Chemicals and drugs**

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

**Methodology**

5 grams of the drug was weighed accurately and placed in a 250ml clean beaker. Then 50ml of distilled water added to it and dissolved well. Then it was boiled well for about 10 minutes. It was cooled and filtered in a 100ml volumetric flask and then it is made upto 100ml with distilled water. This fluid was taken for analysis.

**Qualitative Analysis**

S. No.	Experiment	Observation	Inference
1	<b>TEST FOR CALCIUM</b> 2ml of the above prepared extract is taken in a clean test tube. To this add 2ml of 4% Ammonium oxalate solution.	A white precipitate is formed	Indicates the presence of calcium.
2	<b>TEST FOR SULPHATE</b> 2ml of the extract is added to 5% Barium Chloride solution	A white precipitate is formed	Indicates the presence of sulphate
3	<b>TEST FOR CHLORIDE</b> The extract is treated with silver nitrate solution.	No white precipitate is formed	Absence of chloride.
4	<b>TEST FOR CARBONATE</b> The substance is treated with concentrated Hcl.	No brisk effect vesseance is formed	Absence of Carbonate
5	<b>TEST FOR STARCH</b> The extract is added with weak iodine solution	Blue Colour is formed.	Indicates the present of Starch
6	<b>TEST FOR FERRIC IRON</b> The extract is acidified with Glacial acetic acid and potassium ferro cyanide.	No blue color is formed.	Absence of ferric iron
7	<b>TEST FOR FERROUS IRON</b> The extract is treated with concentrated Nitric acid and Ammonium thiocyanate solution.	No Blood red colour is formed.	Absence of ferrous Iron.
8	<b>TEST FOR PHOSPHATE</b> The extract is treated with Ammonium Molybdate and concentrated nitric acid	No yellow precipitate is formed	Absence of Phosphate
9	<b>TEST FOR ALBUMIN</b> The extract is treated with Esbach's reagent	No yellow precipitate is formed.	Absence of Albumin.
10	<b>TEST FOR TANNIC ACID</b> This extract is treated with ferric chloride.	No blue back precipitate is formed	Absence of galvanic acid.
11	<b>TEST FOR UNSATURATION</b> Potassium permanganate solution is added to the extract.	It gets decolorized	Indicates the presence of unsaturated compound
12	<b>TEST FOR THE REDUCING SUGAR</b> 5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 minutes and add 8-10 drops of the extract and again boil it for 2 minutes	No Colour change occurs	Absence of reducing sugar
13	<b>TEST FOR AMINO ACID</b> One or two drops of the extract is placed on a filter paper and dried well. After drying 1% Ninydrin is sprayed over the same and dried it well.	violet colour is formed.	Indicates the presence of Amino Acid.
14	<b>TEST FOR ZINC</b> The extract is treated with Potassium Ferro cyanide.	No white precipitate is formed.	Absence of Zinc.

**RESULTS AND DISCUSSION**

The Bio chemical analysis of the trial drug *Karappan kudineer chooranam* was tabulated above in table 2.

The trial drug *Karappan kudineer chooranam* contains.

1. Calcium
2. Sulphate
3. Starch

4. Unsaturated compound
5. Amino Acid.

The mode of action of the trial drug *Karappan kudineer chooranam* which brings about the therapeutic action in body process, may be due to the presence of calcium Sulphate, Amino acid, Starch, Unsaturated compound in it.

### CONCLUSION

*Karappan kudineer chooranam* is a Siddha Drug taken from a Siddha literature used in the treatment of atopic dermatitis. The drug is screened for its bio chemical properties. Further, comprehensive pharmacological analysis are needed to evaluate its potency and the drug has its own potency to undergo further research.

### ACKNOWLEDGEMENT

The author wish to acknowledge our hearty thanks to Dr.D.K. Soundararajan, Head of the Department, Department of Kuzhanthai Maruthuvam, Government Siddha Medical College Palayamkottai and thanks to Department of Biochemistry, Government Siddha Medical College Palayamkottai.

### REFERENCES

1. Murugesu Mudaliar K.S. Text book of Materia Medica (Gunapadam) Mooligai, Department of Indian Medicine and Homeopathy, 2008.
2. Pharmacy and Pharmaceutics of Siddha Medicine National Institute of Siddha, 2016.
3. Balavagadam - murugesu mudaliyar, ponguru sironmani - Department of Indian medicine and homeopathy.
4. IAP text book of paediatrics (5<sup>th</sup> edition).
5. Anonymous Sarakku Suthi Muraigal, First Edition, Siddha Maruthuva Nool Veliyita Pirivu Indian Medicine and Homeopathy Department, 2008.
6. Theraiyeeer kudineer part-II.