



Biochemical analysis of Siddha Herbo mineral drug Swasakudori Chooranam

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ABSTRACT

Siddha is one of the ancient medical system in india considered as the mother medicine of ancient tamils in South India for treating various disease even chronic condition. The chooranam is the one of the 32 Internal Medicine used in Siddha system of Meidcine. The Swasakudori chooranam is one of the Herbomineral formulation cited in Agathiyar Vaithiya Kaviyam 1500. In this Medicine all the drugs are purified and prepared as per the siddha literature and used to treat the 96 type of respiratory disease, cough, Asthma, etc. Eventhough research in respiratory medicine and related technology is an advanced stage, respiratory disease are still one of the perpartors of the global health. There are severe respiratory disease such as Asthma, chronic obstructive pulmonary disease, sarcoidosis and pulmonary fibrosis.

The objective of the study increase the awareness about siddha system of medicine to the scientific community. So we evaluate the Biochemical analysis of the trial drug Swasakudori Chooranam and it indicates the presence of sulphate, starch, ferrous Iron, unsaturated compound, amino acid which reveals the enhancement of the therapeutic action

Keywords:

siddha medicine, herbo mineral formulation, swasakudori chooranam, respiratory disease

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CODEN : IJRPHR

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To access this article online

Website : <http://www.ijrphr.com/>

DOI : 10.121/ijrphr/04.0201.509

Quick response code



INTRODUCTION

Siddha System of Medicine is also one of the primogenital system of Medicine practised in south india especially Tamilnadu. In siddha system herbs are used primarily along with minerals and metals . The name 'Siddha' medicine was coined by sages called 'Siddhars' and those are the origin of the medicinal practice. The objective of the siddha medicine is to make the positive health , immershable and harmonious blending of physical, mental social and spiritual welfare of individual to promote longevity.

The chooranam is one of the 32 type of Internal medicine in siddha system. The swasakudori chooranam is an herbomineral combination of eight botanical drugs and one mineral drug cited in Agathiyar Vaithiya Kaviyam 1500. Vehicle(Anupanam) of the medicine is honey, ghee and ginger juice. In this Medicine all the mentioned drugs are purified as per the siddha literature used to treat 96 type of respiratory disease, cough, asthma, etc..

Eventhough research in respiratory medicine and related technology is an advanced stage, respiratory disease are still one of the perparators of the global health. There are severe respiratory disease such as asthma, chronic obstructive pulmonary disease(COPD), sarcoidosis and pulmonary fibrosis. Among this Asthma and COPD are the major ones which adversely affect a huge number of human population. About 65 million people suffer from COPD and 3 million die from it each year, making it the third leading cause of death worldwide.

About 334 million people suffer from Asthma, the most common chronic disease of childhood affectin 14% of all globally.

Hence I select the Siddha drug SWASAKUDORI CHOORANAM is used to treat various respiratory disease. The objective of the study is to increase the awareness about siddha system of medicine to the scientific world. so we evaluate the biochemical analysis of the trial drug swasakudori chooranam

MATERIALS AND METHODS

The siddha drug Swasakudori Chooranam was selected from a classical Siddha literature

Tab. 1 Ingredients of Swasakudori Chooranam:

DRUGS (PURIFIED)	CHEMICAL/ BOTANICAL NAMES	QUANTITY
Chukku	<i>Zingiber officinale</i>	100 gram
Milagu	<i>Piper nigrum</i>	100gram
Thippili	<i>Piper longum</i>	100 gram
Chitrarathai	<i>Alpinia calcurata</i>	100 gram
Agaragaram	<i>Anacyclus pyrethrum</i>	100gram
Valmilagu	<i>Piper Cubeba</i>	100 gram
Desapuram (Thippilikattai)	<i>Piper longum(root)</i>	100grams
Thalisapathiri	<i>Abies webbiana</i>	200gram
Vengaram	<i>Sodium Borax</i>	100grams

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	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	No white precipitate is formed	absence of chloride
04	Test for carbonate The substance is treated with concentrated hcl.	No brisk effervescence is formed	Absence of carbonate

S.no	Experiment	Observation	Inference
05	Test for starch The extract is added with weak iodine solution	Blue colour is formed	Indicates the presence of starch
06	Test for ferric iron The extract is acidified with glacial acetic acid and potassium ferro cyanide.	No blue colour is formed	Absence of ferric iron
07	Test for ferrous iron The extract is treated with concentrated nitric acid and ammonium thiocyanate solution	Blood red colour is formed	Indicates the Presence of ferrous iron
08	Test for phosphate The extract is treated with ammonium molybdate and concentrated nitric acid	No yellow precipitate is formed	Absence of phosphate
09	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 unsaturated compound
12	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 add 8-10 drops of the extract and again boil it for 2 minutes.	No Colour change occurs	Indicate the absence of reducing sugar
13	Test for amino acid One or two drops of the extract is placed on a filter paper and dried well. After drying, 1% ninhydrin is sprayed over the same and dried it well.	Violet colour is formed	Indicates the presence of amino acid
14	Test for zinc The extract is treated with potassium ferro cyanide.	No white precipitate is formed	Absence of zinc

Collection, Identification and Authentification of the drug :

The required herbo mineral drugs were purchased from a well reputed Siddha drug store. The drugs are identified and authenticated by Botanist of central council for research in siddha (CCRS), Ministry of AYUSH, Government of India, Anna Govt. Hospital campus , Arumbakkam, Chennai..

Preperation of the Medicine:

All mentioned raw drugs are purified(fried) and made into fine powder.

Biochemical analysis:

Screening the herbo mineral drug **Swasakudori Chooranam** to identify the Biochemical properties present in the ingredient.

Chemicals and drugs:

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

Methodology(Biochemical Analysis):

5 gram of the drug was weighed accurately and placed in 250ml clean beaker. Then 50ml of distilled water added to it and dissolved well. Then it was boiled well for about 10 min utes. 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.

RESULTS AND DISCUSSION

The Bio chemical analysis of the trial drug Swasakudori chooranam was tabulated above in table. The trial drug , Swasakudori chooranam contains,

1. Starch
2. Sulphate
3. Unsaturated compounds
4. Amino acids
5. Ferrous iron

Analysis reveals the presence of Starch, Sulphate, Unsaturated fatty acid, Amino acids, ferrous iron in Swasakudori Chooranam.

CONCLUSION

Swasa Kudori Chooranam is a Siddha drug taken from a Siddha literature and used in the treatments indicates mainly used for Respiratory disease especially for COPD, Ashthma, cough. The drug is screened for its biochemical property. Further, comprehensive pharmacological analysis is needed to evaluate its potency and the drug has its own potency to undergo further research.

ACKNOWLEDGEMENT

The Author conveys her thanks to The Principal, Government Siddha Medical Collage palayamkottai for granting permission to execute this work in the college premises. I express my sincere thanks to Dr. M.P.Abdul kader jaylani M.D_(s), Head of the Department, Department of Nanju Maruthuvam, Department of Biochemistry, Government Siddha Medical College & Hospital, Palayamkottai and I thank My Department Faculties and thank my friends .

CONFLICT OF INTEREST: None declared

SOURCE OF FUNDING: Nil

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