



Biochemical analysis of Siddha Polyherbal drug Kazhuthu Varma Kudineer

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ABSTRACT

Siddha system is a traditional system of healing medicine in southern part of the India. *Siddha system* deals with many kind of treatment procedures like *Yogam*, *Varmam*, Massage techniques, Nanju noi maruthuvam etc. According to *Varmam*, it contains Manipulation techniques, Internal and external medicines to treat the different type of diseases with a wide range of drugs. Among vadha diseases *Pidari Vatham* is most common type of vadha diseases. The aim of the study was qualitative analysis of *Kazhuthu Varma Kudineer* to treat the *Pidari Vatham*. *Siddha Varmam* drug taken from a *Varmam Literature*. The Biochemical analysis of the trial drug indicates the presence of Sulphate, ferrous iron, unsaturation compound, amino acid revealed the effectiveness of therapeutic action in vadha diseases especially in *Pidari Vatham*.

Keywords:

Pidari Vatham, Cervical spondylosis, Biochemical Analysis, *Siddha Varmam* Medicine, *Kazhuthu Varma kudineer*

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INTRODUCTION

Cervical Spondylosis is a chronic degenerative condition of the Cervical spine that affects the vertebral bodies, intervertebral discs of the neck as well as the content of the spinal canal. Cervical Spondylosis is commonly seen in patients who carry loads on their heads and in office workers involving long sitting hours. Symptoms like Pain in the nape of the neck, Numbness and Radiating pain in upper limbs, Giddiness, Neck stiffness, Pain in occipital region. The symptoms of Pidari vatham mentioned in Vatha Noi Nithanam -800 can be correlated to symptoms of cervical spondylosis.

Varmam is one of the special branch of Siddha system it have a wide range of Internal and External Medications also. Varma point manipulation only practiced by all, but usage of Varma medicine is very minimum in number. Though it has been practiced over years, Scientific validation has not been carried out so far. Here we discussed about Contents of Varma marunthugal especially Kazhuthu Varma Kudineer for Spondylosis.

In Varma marunthu seimuraigal text, Kazhuthu Varma Kudineer is indicated for Cervical pain/Cervical related problems. The symptoms of Pidari vatham mentioned in Vatha Noi Nithanam -800 can be correlated to symptoms of Cervical spondylosis.

MATERIALS AND METHODS

Collection, Identification and Authentication of the Drug:

The required raw drugs were purchased from a well reputed country shop. 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 Medicine:

The purified raw drugs are coarsely powdered and mixed in of each equal quantity. The decoction is made out from the above mixture as per the method available in Siddha literatures.

Biochemical analysis:

Screening the drug *Kazhuthu Varma Kudineer* to identify 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.

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.

RESULTS AND DISCUSSION

Table 1. Ingredients of Kazhuthu varma Kudineer

DRUG	BOTANICAL NAME	FAMILY	PART	QUANTI-
Naththaichoori ver	<i>Spermacoce hispida</i>	Rubiaceae	Root	One part
Adathodai ver	<i>Justicia adathoda</i>	Acanthaceae	Root	One part
Moodila thali	<i>Cassytha filiformis</i>	Lauraceae	Root	One part
Isangu	<i>Cleodendrum inermi</i>	Verbinaceae	Root	One part
Malaithangi	<i>Cissamplos pariera</i>	Menispermaceae	Root	One part
Kaattunaragam	<i>Atlantia racemosa</i>	Combretaceae	Bark	One part
Koovilam ver	<i>Aegle marmelos</i>	Rutaceae	Root	One part
Kumari	<i>Aloe barbadensis</i>	Liliaceae	Leaf juice	One part
Kandangattari	<i>Solanum suratense</i>	Solanaceae	Root	One part
Elam	<i>Elettaria cardamomum</i>	Zingiberaceae	Seed	One part

Table 2. Biochemical analysis of Kazhuthu varma kudineer

EXPERIMENT	OBSERVATION	INFERENCE
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	A white precipitate is formed	Indicates the presence of calcium
TEST FOR SULPHATE 2ml of the extract is added to 5% Barium chloride solution.	A white precipitate is formed	Indicates the presence of sulphate
TEST FOR CHLORIDE The extract is treated with silver nitrate solution	A white precipitate is formed	Indicates the presence of chloride
TEST FOR CARBONATE The substance is treated with concentrated Hcl.	No brisk effervescence is formed	Absence of carbonate
TEST FOR STARCH The extract is added with weak iodine solution	Blue colour is formed	Indicates the presence of starch
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
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
TEST FOR PHOSPHATE The extract is treated with Ammonium Molybdate and concentrated nitric acid	No yellow precipitate is formed	Absence of phosphate
TEST FOR ALBUMIN The extract is treated with Esbach's reagent	No yellow precipitate is formed	Absence of albumin
TEST FOR TANNIC ACID The extract is treated with ferric chloride.	No blue black precipitate is formed	Indicates the presence of Tannic acid.
TEST FOR UNSATURATION Potassium permanganate solution is added to the extract	It gets decolourised	Indicates the presence of unsaturated compound
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.	Colour changes occur	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 well. After drying, 1% Ninhydrin is sprayed over the same and dried it well.	Violet colour is formed	Indicates the presence of Amino acid
TEST FOR ZINC The extract is treated with Potassium Ferro cyanide.	No white precipitate is formed	Absence of zinc

RESULTS AND DISCUSSION

The biochemical analysis of the Kazhuthu Varma Kudineer is tabulated in above table 2. The drug contains Sulphate, chloride, starch, calcium, ferrous ion, unsaturated compound, amino acid, reducing sugar, and tannic acid. The mode of action of the trial drug Kazhuthu varma kudineer which brings about the Bone Mineralisation osteoblastic and osteoclastic activity in body. May be due to the presence of Sulphate, Amino acid, Ferrous Iron in it

CONCLUSION

Kazhuthu varma kudineer is a Siddha Drug taken from a Siddha varmam literature used in the treatment of spondylosis. 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

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REFERENCES

1. Anonymous Sarakku Suthi Muraigal, First Edition, Siddha Maruthuva Nool Veliyita Pirivu Indian Medicine and Homeopathy Department (2008), Chennai.
2. N.V.Bhagavan, Chung- Eun Ha, Essential of Medical Biochemistry, Elsevier Inc Metabolism of iron and heme(Chapter27).2nd Edition.,2015.
3. Anonymous Sarakku Suthi Muraigal, First Edition, Siddha Maruthuva Nool, Veliyita Pirivu Indian Medicine and Homeopathy Department (2008).