



# ORIGINAL RESEARCH PAPER

Siddha

## BIOCHEMICAL ANALYSIS OF SIDDHA MONOHERBAL DRUG ERANDAMoola CHOORANAM

**KEY WORDS:** Osteoarthritis. Biochemical Analysis, Siddha Medicine, Eranda Moola Chooranam.

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### ABSTRACT

Siddha system is a very ancient medicine in the world. It's mainly occur in south india and is considered to be one of the india's oldest system of medicine. Medicinal plants have been a major source of treatment for human disease. In human body joints are the important structure which helpful for normal stability, movement and activity. Arthritis is categorized as *Vali or vali noikal* in the ancient literature of siddha, A number of single drugs formulation are documented for the treatment of different kinds of vali noikal. Among arthritis "*AZHAL KEEL VAYU*" (OSTEOARTHRITIS) is most common type of arthritis. The aim of the study was qualitative analysis of *Eranda moola chooranam* a siddha drug taken from a literature. The biochemical analysis of trial drug indicates the presence of sulphate, ferrous iorn, tannic acid, unsaturated compound, amino acid revealed the enhancement of therapeutic action in arthritis.

### INTRODUCTION:

Siddha system of medicine is one among the Indian system of medicine has been practicing in TamilNadu, Bkerala, Malaysia, Singapore, srilanka, and other Indian. Siddha Medicine is a preciousless medicine in the world. Which help for long life and better health. and in maintaining the physical, mental, and moral health. siddha medicine incorporates wide usage of herps, metals, minerals, and animal products were used to prepare medicine in treating lot of medical ailments. The scientific evaluation is needed to validate is preciousness. It help to ensure safety to the public and effective traditional treatment for diseases. On the basis of our Siddha text osteoarthritis is inter correlated with *keelvayu* and more often keel vayu comes under 80 types of vadha diseases in 'Yugi Vaithiya Chithamani-60 one among them is "*AZHEL KEEL VAYU*". The drug from Siddha literature (*Anuboga vaithiya theva ragasiyam*) Erandamoola chooranam is analysed for the biochemical composition.

### MATERIALS AND METHODS

#### Erandamoolachooranam.

#### INGREDIENTS

Table:1

S.No	Drug Name	Botanical Name
1	Aamanakku ver	Ricinus communis

#### Collection, Identification and Authentication of the Drug:

The required raw drugs were purchased from a well reputed

country shop. Authenticated from Botanist, Government Siddha Medical College, Palayamkottai.

#### Purification of the Drug:

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

#### Preparation of the drug:

The ingredients were fried, powdered and filtered in a cloth (Vasthrakayam).

#### Biochemical analysis:

Screening the drug Erandamoola 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	Absence 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.	A white precipitate is formed	Absence of chloride.
4	<b>TEST FOR CARBONATE</b> The substance is treated with concentrated Hcl.	No brisk efferece is formed	Absence of Carbonate
5	<b>TEST FOR STARCH</b> The extract is added with weak iodine solution	Blue Colour is formed.	Absence 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.	Blood red colour is formed.	Indicates the presence 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	. Indicates the presence of tannic 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	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% Ninhydrin 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 *Erandamoola chooranam* was tabulated above in table 2.

The trial drug *Eranda moola chooranam* contains.

1. Sulphate
2. Ferrous Iron
3. Unsaturated compound
4. Tannic acid
5. Amino Acid.

The mode of action of the trial drug *Eranda Moola chooranam* which brings about the Bone Mineralisation osteoblastic and osteochastic activity in body. May be due to the presence of Sulphate, Amino acid, Tannic acid, Ferrous Iron in it.

#### CONCLUSION:

*Eranda Moola Chooranam* is a *Siddha Drug* taken from a *Siddha* literature used in the treatent of osteoarthritis. 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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