

# Bio-Chemical Analysis of Siddha Varma Medicine Murivukku Chooranam

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**Abstract:** Siddha system is a traditional system of medicine in southern part of the India. Ligamentous injuries to the knee are the most encountered orthopedic problems. The knee is the largest joint in the body. It is a complex structure of muscle, bone and ligaments. In Varma marunthu seimuraigal text, Murivuku chooranam is indicated for injuries. Hence an attempt has been made to know about the efficacy of Varma internal medicine in the treatment of knee joint ligament injuries. The biochemical analysis of the trail drug indicates the presence of Sulphate, Chloride, Starch, unsaturated compounds, amino acids revealed the effectiveness of therapeutic action in muzhankaal muttu savvu kaayam.

**Keywords:** Knee Joint ligament injuries, biochemical analysis, siddhamedicine, murivukku choornam.

## 1. Introduction

Ligament injury-knee joint is an annoying and painful condition that limits the functions of the joints. There is a pain

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### 2) Methods Of Purification and Preparations

All the ingredients will be completely purified as per the siddha literature in the presence of Guide / Faculty members. Then the trail drugs will be prepared from the ingredients.

### Biochemical Analysis

Screening the drug Murivukku choornam to identify the Biochemical properties present in the ingredient.

### 3) Chemicals and drugs

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

### 4) Methodology

5gms of the drug was weighed accurately and placed in a 250ml clean beaker then 50ml of distilled water is added and dissolved well. Then it is boiled well for about 10 minutes. It is

Table 1

Represents the drug in Murivukku choornam

S.No.	Drug	Botanical Name	Family	Part Used	Quantity
1.	Inji	<i>Zingiberofficinale</i>	Zingiberaceae	Root	One part
2.	Komparakku	<i>Carterialacca</i>	-	-	One part
3.	Savukkaram	<i>Hydrous Sodium carbonate</i>	-	-	One part

and tenderness in the knee joints during standing and walking. The knee ligament injuries often occur in the setting of sports participation but may also occur as the result of traumatic injury or accident. In Varma marunthu seimuraigal text, Murivuku chooranam is indicated for injuries.

## 2. Materials and Methods

### 1) Source of drug ingredients

The raw drugs required for preparations of Murivukku Chooranam will be purchased from a well reputed country shop. The purchased drugs will be authenticated by The Faculty

cooled and filtered in a 100ml volumetric flask and then it is made to 100ml with distilled water. This fluid is taken for analysis.

## 3. Results and Discussion

The biochemical analysis of the trial drug Murivukku choornam was tabulated in table

The trial drug Murivukku choornam contains,

1. Sulphate
2. Chloride
3. Starch
4. Unsaturated compound
5. Amino acid

Table 2  
Represents the Qualitative Analysis of Murivukku choornam

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	Indicates the presence of chloride
04	Test for carbonate The substance is treated with concentrated HCl.	No brisk effervescence is formed	Absence of Carbonate
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.	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	No blood red is formed	Absence 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 changes occurs	Absence of reducing agent
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

Mode of action of the trial drug Murivukku choornam which brings about the bone mineralization, osteoblastic and osteoclastic activity in body. May be due to presence of sulphate and amino acid in it.

#### 4. Conclusion

Murivukku choornam is the siddha drug taken from Siddha literature used in the treatment of various diseases. The drug is screened for its biochemical 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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