Neerizhivu Kudineer- Action and Biochemical Analysis

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Abstract: **Varmam is an art which includes martial arts, stimulation of Varma points, massage, Varma medicine and it is the part of Siddha system of medicine. Varma Maruthuvam is being used widely in south part of India especially Tamilnadu for various ailments. Ancient Varmam text indicates the trial drug Neerizhivu Kudineer for Neerizhivu (Diabetes mellitus). Aim of the study is to record the biochemical analysis of the trial drug Neerizhivu Kudineer. This study reveals presence of biochemical substances which helps to treat Diabetes mellitus and this drug will be effective against Neerizhivu (Diabetes mellitus).**

Keywords: **Neerizhivu Kudineer, Neerizhivu, Diabetes mellitus, Biochemical analysis.**

1. Introduction

Varmam is the traditional art of Tamilnadu, which has been widely used as martial art which includes stimulation of Varma points, massage and Varma medicine; it is also used to treat various ailments. Varma Maruthuvam works very well in orthopedics, neurology, endocrinology etc., it is a part of ancient Siddha system of medicine gifted by Siddhars. Diabetes is an important public health problem, one of four priority non-communicable diseases (NCDs) targeted for action by world leaders. Both the number of cases and the prevalence of diabetes has been steadily increasing over the past few decades [1]. According to WHO, diabetes mellitus (DM) is defined as a heterogeneous metabolic disorder characterized by common feature of chronic hyperglycemia with disturbance of carbohydrate, protein and fat metabolism [2].Neerizhivu Kudineer is a herbal formulation denoted in Varmam text, herbs used in the Neerizhivu Kudineer are being widely used in Siddha system for diabetes and other aliment related to diabetes over a long period of time.

2. Materials and Methods

A. Ingredients of neerizhivu kudineer

1) Collection, Identification and Authentication of the Drug

The drugs mentioned in the Table No.1 were collected fromTirunelveli and Kanyakumari district, Tamilnadu, India. Collected raw drugs were identified and authenticated by Botanist of Government Siddha Medical College, Palayamkottai, Tirunelveli, Tamilnadu.

2) Purification and Preparation of the Drug

The ingredients of this Neerizhivu Kudineerwere purified according to the proper methods described in Siddha Classical Literature.

3) Biochemical analysis

Biochemical Analysis involves the screening of the drug Neerizhivu Kudineer, in order to identify the Biochemical properties of the ingredient.

4) Chemicals and drugs

The chemicals used in this study were of analytical grade and were obtained from the Department of Biochemistry, Government Siddha Medical College, Palayamkottai, Tirunelveli, Tamilnadu.

Table 1
Drug description [3] [4]

S. no.	Drugs	Botanical name	Family	Parts used
1	Alam Vithai	*Ficus benghalensis*	Moraceae	Seed
2	Vilam Pisin	*Limonia acidissima*	Rutaceae	Gums

3. Methodology

A. Preparation of the extract

5 grams of the drug was weighed accurately and placed in a 250ml clean beaker. Then 50ml of distilled water is added to it and it is 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 diluted to 100ml with distilled water. This clear fluid was taken for analysis.

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Qualitative analysis:

Table 2
Inference from qualitative analysis of the drug, 'neerizhivu kudineer

S. no.	Experiment	Observation	Inference
01	Test for calcium 2ml of the above prepared extract is taken in a clean test tube. To this 2ml of 4% Ammonium oxalate solution is added.	A white precipitate is formed.	Indicates the Presence 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.	A white precipitate is formed.	Indicates the presence of Chloride
04	Test for carbonate The substance is treated with concentrated Hydrochloric Acid.	No brisk effervessence is formed.	Absence of Carbonate.
05	Test for starch The extract is treated with weak iodine solution.	No Blue colour is formed.	Absence 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.	A 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.	Blue black precipitate is formed.	Indicates the presence of Tannic acid.

4. Results

The bio chemical analysis of Neerizhivu Kudineer shows presence of Calcium, Sulphate, Chloride, Ferrous Iron, Tannic acid and Amino acid.

A. Discussion

Results obtained shows the presence of Tannic acid, Amino acid, Chloride in the Neerizhivu Kudineer which helps to reduce the high blood sugar level and the presence of Calcium, Sulphate, Ferrous Iron helps to prevent or cure the complications of Diabetes mellitus.

5. Conclusion

This study proves the effectiveness of Siddha Varma medicine Neerizhivu Kudineer in treating Neerizhivu (Diabetes mellitus) and gives way for further research.

References

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