

JUSTIFICATION FOR NILAVEMBU KUDINEER CHURANAM IN TABLET FORM

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Article Received on 25/12/2019

Article Revised on 15/01/2020

Article Accepted on 05/02/2020

ABSTRACT

Nilavembu kudineer churanam is well known for its anti-inflammatory, analgesic and anti-pyretic effect in siddha system. It is also proven to have immunomodulatory benefit. This drug will be given as a prophylactic as well as treatment medicine. It is also given during monsoon to prevent the viral diseases even by government of Tamilnadu. Because of its kudineer form, the benefits of it is not reaching to people as it deserved. The question of how to convert this kudineer to a contemporary form i.e tablets requires greater scientific investigations and understanding. We have used the extractive value as the key determining factor to convert Nilavembu kudineer churanam, Sastric Siddha Medicine to tablet dosage form. Details are presented in the paper.

KEYWORDS: Nilavembu kudineer choornam, Niku.

INTRODUCTION

Nilavembu kudineer churanam is a Sastric siddha medicine, indicated for pitta suram. It is given for Viral fevers and associated pains. It is also indicated for improving the immunity and thus prevents the occurrence of viral fevers. This will be given as a prophylactic drug during the monsoons and also given to patients suffering from viral fevers as an adjuvant therapy. There are various clinical trials and *in vivo* studies done by the government organizations supporting its role in the prevention of viral fevers in the people and a faster improvement in the fever patients when took this as prophylactic medicine and adjuvant in treatment medication respectively.^[1,2,3,4] Even the government of Tamilnadu distribute the Nilavembu kudineer churanam freely during monsoon to prevent the prevalence of viral fevers, chikungunya and dengue.^[5,6]

Because of its kudineer form, cumbersome activity involved and bitter taste, acceptance in the people is low and the greater therapeutic advantage of it is missing and not reaching the society. And the product contains various plant parts which vary greatly in their densities results in the uneven distribution even in the single pack. This results in uneven therapeutic dosage consumed by the patient.^[7] Moreover, conventional Nilavembu kudineer churanam preparation is quite time taking with various steps involved.

1. Weight 12.5 of the Nilavembu kudineer churanam
2. Boiling with 250ml of water
3. Boiled till it reaches to quarter volume i.e 60 ml
4. Filter and then drink.

In order to enhance the acceptance of Nilavembu kudineer churanam and to promote & popularize the ancient Siddha system of medicine and its sacredness, a simple and scientifically accepted dosage form is essential.

With this objective in mind we have developed the Nilavembu kudineer churanam in tablet form without compromising on the therapeutic advantage it offers. And it is evaluated based on the extractable matter and the complete details are presented in the paper.

MATERIALS AND METHODS

Product description: Nilavembu kudineer churanam is indicated for viral fever and associated pains.

It is composed of

<i>Cyperus rotundus</i> (Korai Kilangu)	-1 part
<i>Santalum album</i> (Sandhanam)	-1 part
<i>Plectranthus vettiveroides</i> (Vilamicahiver)	-1 part
<i>Vetiveria zizanioides</i> (vettiver)	-1 part
<i>Andrographis paniculata</i> (Nilavembu)	-1 part
<i>Mollugo cerviana</i> (parpadagam)	-1 part
<i>Zingiber officinale</i> (Sukku)	-1 part
<i>Trichosanthes cucumerina</i> (Peipudal)	-1 part
<i>Piper nigrum</i> (Milaghu)	-1 part

Calculation of extractive value^[9-11]

For the calculation of extractive value 12.5 gm of the sample was weighed accurately and was treated with 100ml of absolute alcohol in a clean conical flask of 250ml. the conical flask was covered and placed the mixture was kept in a rotary shaker at room temperature

and was allowed to shake for 6 hrs. After 6 hours the mixture was allowed to stand stationary for another 18 hrs. Then the mixture was filtered and the filtrate was evaporated. After complete evaporation of the solvent the residual extract was weighed accurately and the percentage of extractive value was calculated by using the formula given below

Extractive value (%) = weight of Residue /weight of sample X 100

RESULTS

Table 1: Extractive value of Nilavembu kudineer churanam.

Product	Alcohol extractive value (%)	Quantity of extractable matter present per dosage (gm)
Nilavembu kudineer churanam	4	0.5 per 12.5 gm

Following table shows the extractive value of Nilavembu kudineer churanam. The extractable matter present per 12.5 gm of is also presented in the Table-1.

The extractive value of Nilavembu kudineer churanam was 4% means, every 100 gm would contain 4gm of extractable matter and the remaining portion would be fibers which in all likely hood may not have any therapeutic value.

Formulation: Nilavembu kudineer churanam Tablet.

The extractive value of Nilavembu kudineer churanam was 4%. The recommended dosage of Nilavembu kudineer churanam is 12.5 gm. In every 12.5 grams of Nilavembu kudineer churanam will contain 500mg of the extractable matter. To the tablet base, 500 mg of the extractable matter of Nilavembu kudineer churanam was incorporated and accordingly the tablet was made.

DISCUSSION

In the conventional dosage form, where Nilavembu kudineer churanam is composed of 9 herbs with different plants parts used-roots, leaves and woody powders. Even though all herbs are pulverized to similar particle size but distribution will be purely based upon the density of each material.^[7] Therefore, the uneven distribution of the materials will lead to inappropriate dosage and low therapeutic efficacy. The HPTLC profile of conventional one was studied in our earlier preparations. Uneven distribution of particles was also observed under scanning electron microscope in our earlier studies.^[8]

Extraction of the quality approved raw materials as per the composition and incorporating the extractable matter in the tablet base results in the better and even distribution. This also dispenses the correct dosage to the patient.

Tablet dosage form is one of the most accepted drug dosage forms followed worldwide. The tablet base is composed of microcrystalline cellulose which can be equated to the herbal fibers present in most of the siddha

Formulation of Tablet^[1-8]

The conventional tablet base (Micro Crystalline Cellulose, Poly vinyl pyrrolidone and Magnesium stearate) was used. According to the extractive value of Nilavembu kudineer churanam, the tablet dosage form was prepared.

churanam. However, Microcrystalline cellulose has got great compressibility which the herbal fibers lack greatly. Another advantage of Microcrystalline cellulose is that when the extractable matter is incorporated in the above base it would get released instantaneously whereas such spontaneous release of extractable matter from the respective herbal sources is not that easy. Therefore, the tablet dosage form of all the sastric drugs are likely to offer faster therapeutic delight than when they are prescribed in the native form i.e., churanam.

We have attempted not only to present the sastric siddha drug - Nilavembu kudineer churanam in modern format but also worked hard to enhance the therapeutic benefit. Patients must find the therapeutic benefit as quickly as possible and only than such formulations will be accepted by modern world and not just when they are presented in modern format alone.

Moreover, the tablet dosage form is well accepted and also masks the bitter taste of the Nilavembu kudineer churanam. Therefore, it can be well accepted by the larger population and the society can be benefited by this magnificent drug.

Dr.JRK's Research and Pharmaceuticals promotes & popularizes the therapeutic efficacy of sastric system of medicine, through advanced science and contemporariness through Ayurveda and siddha treatment. The transformation of Nilavembu kudineer churanam to tablet dosage form would certainly enhance the scientific credence of the sastric siddha medicine.

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