



COOKIES ARM' TO LIFT SIDDHA KUDINEER TO COMBAT VIRAL ENEMIES

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ABSTRACT

The ancient Siddha system of medicine has great value in the mitigation and treatment of various ailments and disease conditions. Coronavirus Disease (COVID-19) is the most fatal condition caused by SARS-COV-2 virus. In addition to Kaba Sura Kudineer (KSK), Nilavembu Kudineer (NVK), which are exclusively used in the treatment of COVID-19, there is one such entity which is unexplored, but is astonishing from the Siddha world with anti-viral effects is Visha sura Kudineer (VSK). VSK consists of about 9 major ingredients, possessing remarkable features. The study centralizes the preparation of VSK cookies with three distinct aspects, such as the incorporation of traditional churna at pre-dough and post-dough stage as well as incorporation of decoction into the dough. Incorporation of churna at post dough stage *met all* organoleptic characteristics when the final product cookies were evaluated whereas the churna incorporation during dough making or the decoction did not yield the characteristics of VSK in cookies. Details of the findings are presented in the article. The dosage form of cookies was attempted essentially to increase the acceptance of VSK, to sensitize Siddha system among people and finally to protect humanity from viral pathogens.

Keywords: Visha Sura Kudineer, Cookies, Siddha system, COVID-19, dough-making, decoction

INTRODUCTION

Despite Siddha system of medicine being time-tested, time-immemorial and developed by Siddhars with divine power still suffers poor acceptance due to the presentation form, format and also the labour involved in processing the drug [1, 2].

With the advent of COVID, the entire world has come back to native medicine and as a result Siddha and Ayurveda system of medicine has occupied centre stage of medical research all over the world. Kabasura kudineer (KSK) and Nilavembu kudineer (NVK) drew global attention for the treatment of third world epidemic Dengue and Chikungunya and way back in 1990 become one and one only drug of choice the Siddha system of medicine could think of to mitigate for the Global pandemic COVID [1-5].

Thanks to Kabasura Kudineer all those who consumed the same presumably did not suffer the catastrophic effect of COVID virus. In nutshell, KSK gave nightmare to the virus. Thanks to the spiritual wisdom and divine power of our ancient Siddhars to gift the above drug to humanity.

In the global acclaim and acceptance of Kabasura kudineer, Nilavembu kudineer, Adathoda manapagu, unfortunately the Vishasura kudineer (VSK) had gone

‘Cinderella’ [3-5]. An intense literary search by the author has led to the discovery of the untapped wonderment of Vishasura Kudineer to combat viral diseases [6, 7].

The author thought innovatively to take the Vishasura Kudineer to the masses in an acceptable format to put an end to the pathogenic virus. The global acceptance towards Vishasura Kudineer can be galvanized easily through presenting the drug in a tempting, palatable, ready to take, all time use format. The author decided to convert the above wonder drug of Siddha system of medicine - Vishasura Kudineer through confectionary route especially in the form of cookie.

Presenting the above kudineer which is obviously bitter in taste, less palatable and also has ‘somewhat’ obnoxious odour will not be accepted by the modern generation and therefore cookie format was adopted. Cookies are quite palatable, tempting and no one would refuse to take.

We have also adjusted the colorific value of the cookie so that even diabetic patients need not worry about the same as well as the deadly virus. The author feels proud to pay tribute to Siddha system of medicine and in that endeavor this format of Vishasura kudineer (VSK) has been arrived.

The present article deals with drug dosage calculation, formulation of cookie and process nuances besides feedback-based acceptance analysis of the same. Details are presented in the article.

MATERIALS AND METHODS

DETAILS OF VISHASURA KUDINEER [6]

S. No.	Drug	Tamil Name	Botanical Name	Part used	Proportion used
01.	True Indigo	Avuri / Neeli	<i>Indigoferatinctoria</i>	Root	1 part
02.	Indian Birthwort	Ishwaramulli	<i>Aristolochia bracteata</i>	Root	1 part
03.	Cardamom	Elam	<i>Elettaria cardamomum</i>	Fruit	1 part
04.	Dry Ginger	Chukku	<i>Zingiber officinale</i>	Rhizome	1 part
05.	Liquorice	Athimathuram	<i>Glycyrrhiza glabra</i>	Root	1 part
06.	Indian Sarsaparilla	Nannari	<i>Hemidesmus indicus</i>	Root	1 part
07.	Neem	Veppam	<i>Azadirachta indica</i>	Stem bark	1 part
08.	Sandalwood	Chandanam	<i>Santalum album</i>	Heart-wood	1 part
09.	Khus	Vetiver	<i>Vetiveria zizanioides</i>	Root	1 part

PROCESSING OF VSK AS PER SIDDHA SYSTEM OF MEDICINE

5 g of Vishasura Kudineer chooranam is weighed and is then boiled in 240ml of water and the volume is reduced to 1/4th (60 ml). The dosage to be consumed is 30ml [8, 9].

COOKIE FORMULATION DETAILS

We have made cookies (individual unit) weighing 5gm. The dosage of different herbs was adjusted accordingly for 5gm of cookie, where the dosage was reduced to half to facilitate intake of 2 cookies to achieve the desired dosage. Gluten-free wheat flour, milk, icing sugar (1%) and edible oil were used besides aerating agent, baker's ammonia. The dough was made into 5gm cookie and baked for 30 minutes at 180°C.

Further, we have adopted two distinct methods of cookie-making where in one method, the herbal components were incorporated with the base material in the beginning at dry form and then made into dough and in the second method, the dough was made first using the base and then the herbal components were admixed into the dough and then homogenized. Also, the VSK decoction was made as per Siddha description and the filtered decoction was used in the dough and cookie was made.

TESTING OF DRUG IN COOKIE THROUGH TASTE, FLAVOR AND ODOUR

Five volunteers were thoroughly trained to pick the taste and odour/flavour difference of

Vishasura kudineer (VSK) were engaged to rate the spontaneous and instantaneous presence of the drug in three types of cookies that were made. Further the taste modification in the above formulations and the acceptance per say of the above also recorded.

PHYSICAL CHARACTERISTICS OF THE COOKIES

The cookies made with the herbal constituents at pre- or post- dough stage appear crisp, crunchy, porous and tempting. The colour of the same was chocolate brown with the conspicuous shape-marking over the cookies. The cookies made with decoction did not show any difference at physical level.

ODOUR PROFILE

The cookies made with incorporation of herbals at pre-dough stage did not release the strong odour of Vishasura kudineer. Whereas the cookie made with the herbal constituents incorporated at post- dough stage showed strong characteristic odour of Vishasura kudineer in toto or some of the herbal ingredients (Nilavembu and Ginger). The cookies made with VSK decoction did not

reveal the characteristic odour of the same even at trace level.

TASTE PROFILE

The cookies made with incorporation of herbal at pre-dough stage appears 'very confectionary' and poorly reveals the characteristics of Vishasura kudineer. The cookies made with herbals at post-dough stage taste elegant and revealed the characteristics of most of the herbal constituents of VSK. The cookies made with decoction did not meet the characteristic taste of Vishasura Kudineer.

FEEDBACK ANALYSIS

The expert feedback analysis by the panel revealed that the herbal constituents incorporated at pre-dough stage scored poorly on revealing the characteristics of VSK whereas the incorporation of herbals at post-dough stage showed distinct characteristics of VSK and also the taste of the cookie was quite appealing. And, when decoction was used in the cookie formulation, the cookies thus made did not show any compliance with the organoleptics of vsk (**Table 1**).

Table 1: Organoleptics of Cookies

Formulation	Parameters			
	Taste	Odour	Flavor	Acceptance score (1 to 5)
Pre-dough	Good	Poor	Good	2
Post-dough	Excellent	Excellent	Excellent	5
Decoction	Poor	Poor	Poor	1

DISCUSSION

Vishasura kudineer is a 'diamond mine' to combat viral diseases of both the old and new world, which was gifted to mankind by the divine Siddhars. Unfortunately, the above diamond mine was seldom known or seen by the humanity and if VSK was used along with Kabasura Kudineer or Nilavembu Kudineer, India could have totally insulated itself from the global pandemic- COVID. Even the vaccination adventure also could have been avoided; the author does not feel the above phrase as an exaggeration or over statement.

In our pursuit to save mankind from COVID and all its likely siblings and cousins in near and distant future, we brainstormed through the maestro work of ancient Siddhars and discovered the essence of Vishasura kudineer. The formulation assembly of herbs in VSK is not greatly different from NVK or KSK however Vishasura kudineer uses the non-aerial portion of *Indigofera tinctoria* and *Aristolochia bracteata* [3-6]. So far the leaf-parts of the *I.tinctoria* are only used, whereas in VSK the root-portion of the same plant is used. The ancient Siddhars might have some strong science for the above and therefore we chose VSK for our present study. Since all herbs of VSK are not only therapeutically effective but also are safe and therefore we

did not want to invest our time and effort in reinventing the same wheel of safety and efficacy and instead invented an innovative method of taking the drug to the mankind.

We have arrived finally that converting VSK in cookie form will be ideal where the present generation are gluttons towards confectionary items especially cookie. Therefore taking a drug through the most preferred food item is the best method to reach health and wellness to every door. We have made cookie by employing the herbal constituents admixing at pre- and post-dough stage and found that post-dough admixing is quite effective with reference to all organoleptic characteristics of VSK such as taste, flavor and odour.

In Siddha system of medicine, the divine Siddhars have instructed Kudineer preparation from VSK chooranam but we have adopted the choornam powder itself instead of kudineer because of the calorific advantage. The herbal micro-fibers post baking (data submitted elsewhere for publication) showed high metabolism, glucose regulation and interfering with alpha-amylase and alpha-glucosidase activity therefore we used VSK chooranam as such because in cookie formulation they undergo baking treatment and therefore the above medical benefit would add additional value

to VSK [10]. The anti-viral activity of VSK is doubtless, non-debatable and requires no further proof because the formulation was evolved by ancient Siddhars with supernatural spiritual powers. The cookies made with decoction prepared as per Siddha doctrine did not show any characteristic odour or taste of VSK probably due to the baking conditions. Therefore we believe that direct use of the herbal constituents (wherever the herbal constituents are edible and safe) is the best way to make cookies, as the herbal drug constituents will be safe in their native form therefore the superior efficacy is not lost.

The present generation by simply following the tenets of Siddha system of medicine and using various Siddha recipes can surpass 'death and disease' and therefore making every Siddha recipe acceptable to everyone should be the goal and mandate of the qualified pharmacognosist and therefore the author take pride in bringing of VSK in cookie form. The author feel having paid the highest salutation and tribute to the ancient Siddhars to gift a wonderful drug to humanity and the authors hope the scientific world would whole heartedly applaud the endeavor and effort.

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