



Review Article

SCIENTIFIC EVALUATION OF SEASONAL DIETARY PRACTICES IN KERALA – KARKITAKA KANJI, MUKKUDI, PATTILA CURRY

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ABSTRACT

Following a seasonal dietary regimen is an age old practice amongst the mankind which enabled them to survive and adapt according to the environmental needs. But the urbanization took away most of such culturally bound time tested practices from the society which played a key role in maintaining good health and immunity. *Karkitaka Chikitsa* – (a systematically following dietary and therapeutic regimens during the month of *Karkidam* (June-July)- is one such practice which is still prevailing in the south Indian states especially in Kerala. The month of *Karkidaka* is in the transition phase from rainy season to autumn characterized with debilitated health and lack of employment due to climatic conditions. According to *Ayurveda* the strength of body is considerably compromised during the months of summer and rainy season. Poor digestive power (*Agni bala*) and aggravation of *Vata dosha* happens during the rainy season. Hence specific diet and therapeutic regimens that can mitigate or balance the *Vata* and thereby rejuvenate the health and immunity is followed. The dietary plans include *Karkkidaka kanji* (rice gruel processed with herbs), *Mukkudi*, *Pattila* curry (dish made with ten varieties of leaves) etc. This article is an attempt to scientifically analyze the special monsoon dietetics of Kerala.

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INTRODUCTION

Seasonal and other environmental changes are having influence over the various physical activities. The effect of climatic changes on physical and psychological well being is being explored worldwide. This is the reason behind the practice of certain diets and regimens during a particular season. These practices are having a strong cultural background which could probably explain how such practices merged with the life style and benefited. Urbanization and swift growth of e-world is leading the mankind to a timeless society which forces us to forget these time tested culture bound practices which played a key role in maintaining good health and immunity.

Karkkidaka is the last month in Malayalam calendar which comes during the period when south west monsoon hits Kerala. During this month

there is a drastic change in the climatic condition. This change in climate will make profound impact on the strength and immunity of the body. The socio cultural status of ancient Kerala reveals that, agriculture was the major source of livelihood. Hence during rainy season unemployment was quite common and they used this season to rejuvenate themselves and to restore the *Shareerabala* (body strength) and *Vyadhikshamatwa* (immunity).

In *Ayurvedic* per view month of *Karkidaka* falls under *Varsha rithu* (rainy season), during which the strength of body (*Sarira bala*), digestive fire (*Agni bala*) and immunity is considerably compromised. Such natural seasonal changes can make one more vulnerable to diseases and can

cause diseases to those who follow unwholesome diets and regimens.

Varsha ritu is the *Prakopa kala* (aggravation time) of *Vatadosa*^[1]. Aggravated *Vata dosa* can lead to the manifestation of various *Vatavyadhis* (diseases due to *Vata dosha*) mainly involving bones and joints. Age old population is more vulnerable to such diseases as those age groups having a dominance of *Vata* in the body. Apart from that many contagious diseases sprouts and spreads during this season because of decreased *Vyadhikshaatwa* (immunity power).

Poor digestive fire (*Jataragni*) fails to digest the food properly and leads to indigestion (*Ajeerna*) which further can end up in the formation of *Ama* (a toxic by product of impaired digestion and metabolism). These disturb the equilibrium of *Tridosha* in the body and create various health issues^[2].

Modification in *Ahara* (diet regimen) and intake of *Aushadha* (medicines) as prophylaxis are the two options to maintain the balance of *Tridosha* and improve *Agni* (digestive fire) and immunity. As the former is more accessible than the later for the majority, use of special diet preparations processed with available herbs during this month became a part of life. *Karrkidaka kanji* (rice gruel processed with herbs), *Mukkudi*, *Pattila* curry (dish made with

Ingredients:

Local Name	Sanskrit Name	Part Used	Botanical Name	Family
Asali	Chandrasura	Seed	<i>Lepidium sativum</i> Linn	Cruciferae
Uluva	Methika	Seed	<i>Trigonella foenum-graecum</i> Linn	Fabaceae
Jeeraka	Jeeraka	Seed	<i>Cuminum cyminum</i> Linn	Umbelliferae
Malli	Dhanyaka	Seed	<i>Coriandrum sativum</i> Linn	Umbelliferae
Manjal	Haridra	Rhizome	<i>Curcuma longa</i> L	Zingiberaceae
Chukku	Sundi	Rhizome	<i>Zingiber officinale</i> Roscoe	Zingiberaceae
Grambu	Lavanga	Flower	<i>Syzygium aromaticum</i>	Myrtaceae
Cherupayar	Mudga	Seed	<i>Vigna radiata</i> Linn.	Fabaceae
Kuruntotti	Bala	Mula	<i>Sida cordifolia</i> Linn.	Malvaceae
Tazhutama	Punarnava	Mula	<i>Boerhaavia diffusa</i> Linn	Nyctaginaceae
Njavara	Sashtika	Seed	<i>Oryza sativa</i> L	Gramineae
Godambu	Godhuma	Seed	<i>Triticum aestivum</i> L	Gramineae
Tengapal	Drida phala	Milk	<i>Cocos nucifera</i> L.	Arecaceae
Dasamulam	-	Roots		
Pattila	-	Leaves		

Dasamulas are the roots of ten drugs; they are *Vilwa* (*Aegle marmelos*-Rutaceae), *Agnimada* (*Premna obtusifolia* / *Clerodendrum phlomidis* - Verbenaceae), *Syonaka* (*Stereospermum suaveolens* - Bignoniaceae), *Patala* (*Oroxylum indicum* - Bignoniaceae), *Kashmari* (*Gmelina arborea* -Verbenaceae), *Prishniparni* (*Desmodium gangeticum* - Fabaceae), *Salaparni* (*Pseudoarhria vicida* - Fabaceae), *Brihati* (*Solanum indicum*-Solanaceae), *Kandakari* (*Solanum xanthocarpum*-Solanaceae), *Goksura* (*Tribulus terrestris*- Zygophyllaceae).

ten varieties of leaves) are the commonest diet preparations designed for this season. These dietary practices are continued till date with serial decline in interest among people meanwhile manipulative therapies (like oil massage, steam etc.) gained more popularity during this season which alone couldn't serve the early mentioned purposes.

During this scenario of COVID 19 pandemic whole world is running to be healthy. So it is the need of hour to scientifically analyze and evaluate the scope of time tested culturally bound regional diet practices in maintaining the health and improving the immunity.

Karkidaka Kanji

Peya (*Kanji* - rice gruel) is one of the most common forms of dietary preparation used among the population of Kerala. *Ayurveda* describes *Peya* possess the properties such as *Deepana*, *Pacana* (improves digestion and metabolism) and *Mala vata anulomana* (downward movement of *Vayu* and other excreta). It is beneficial to subside *Kshut* (hunger), *Trishna* (thirst), *Glani* (fatigue), *Daurbalya* (debility), *Kuskshi roga* (abdominal discomforts), *Jwara* (fever)^[3]. In *Karkitaka kanji* a number of herbs are processed along with the rice. The combination varies according to the regional availability of the herb.

Drug	Anti-Oxidant	Immuno-modulatory	Anti Inflammatory	Analgesic	Antiviral	Anti Arthritic
<i>Chandrasura</i> ^[4]	✓	-	✓	✓	-	✓
<i>Methika</i> ^[5-6]	✓	✓	✓	-	-	-
<i>Jeeraka</i> ^[7-9]	✓	✓	✓	✓	-	-
<i>Dhanyaka</i> ^[10-14]	✓	✓	✓	✓	✓	-
<i>Haridra</i> ^[15-20]	✓	✓	✓	✓	✓	✓-
<i>Sundi</i> ^[20-26]	✓	✓	✓	✓	✓	✓
<i>Lavanga</i> ^[26-31]	✓	✓	✓	✓	✓	
<i>Mudga</i> ^[32-34]	✓	✓	✓	✓	✓	-
<i>Bala</i> ^[35-37]	✓	✓	✓	✓	-	-
<i>Punarnava</i> ^[38-43]	✓	✓	✓	✓	✓	✓
<i>Sashtika</i> ^[44-46]	✓	✓	-	-	-	✓
<i>Godhuma</i> ^[47-49]	✓	✓	✓	✓	-	✓
<i>Drida phala</i> ^[50-53]	✓	-	-	✓	✓	-
<i>Dasamula</i> ^[54-55]	✓	✓	✓	✓	✓	-

Chandrasura, Methika, Jeeraka, Sundi, Bala, Dridabala are having cardioprotective and anti hypertensive effect.^{[4], [5], [56-59]} *Chandrasura, Methika, Jeeraka, Dhanyaka, Sundi, Bala, Shastika* is having hypolipidemic action^[61-64], Anti diabetic effect^{[4], [5], [35].[57].[58], [65]-[71]}; are shown by *Chandrasura Methika, Jeeraka, Lavanga, Dhanyaka, Bala, Sastika, Godhuma, Mudga, And Haridra*. This diet is highly nutritious containing carbohydrate, proteins, sodium, calcium, phosphorus, minerals, vitamins and water.

Mukkudi

Mukkudi is another special preparation of *Karkkidaka* diet, which is explained in the text *Chikitsa manjari*. This preparation is specially designed to compact with the digestive disorder of any kind. *Mukkudi* is prepared with buttermilk blended in many medicinal herbs and seasoned with many carminatives.

Local Name	Sanskrit Name	Part Used	Botanical Name	Family
<i>Muthil</i>	<i>Mandukaparni</i>	Leave juice	<i>Centella asiatica</i> . (L.)	Apiaceae
<i>Puliyarila</i>	<i>Changeri</i>	Leaf juice	<i>Oxalis corniculata</i> L	Oxalidaceae
<i>Kutakappalayari</i>	<i>Kutajabeeja</i>	Seed	<i>Holarrhena antidysenterica</i> (L.) Wall. ex A. DC	Apocynaceae
<i>Kurumulaku</i>	<i>Marica</i>	Fruit	<i>Piper nigrum</i> L.	Piperaceae
<i>Kottambalayari</i>	<i>Dhanyaka</i>	Seed	<i>Coriandrum sativum</i> Linn	Umbelliferae
<i>Jeeraka</i>	<i>Jeeraka</i>	Seed	<i>Cuminum cyminum</i> Linn	Umbelliferae
<i>Chukku</i>	<i>Sundi</i>	Rhizome	<i>Zingiber officinale</i> Roscoe	Zingiberaceae
<i>Uluva</i>	<i>Methika</i>	Seed	<i>Trigonella foenum-graecum</i> Linn	Fabaceae
<i>Manjal</i>	<i>Haridra</i>	Rhizome	<i>Curcuma longa</i> L	Zingiberaceae
<i>Moru</i>	<i>Takra</i>		Buttermilk	

Drug	Anti-Oxidant	Immuno-modulatory	Anti Inflammatory	Analgesic	Antiviral	Anti Arthritic
<i>Mandukaparni</i> ^[72-76]	✓	✓	✓	✓	✓	✓
<i>Changeri</i> ^[77-79]	✓	✓	✓	✓	-	✓
<i>Kutajabeeja</i> ^[80-83]	✓	✓	-	✓	-	-
<i>Marica</i> ^[84-89]	✓	✓	✓	✓	✓	-
<i>Dhanyaka</i> ^[10-14]	✓	✓	✓	✓	✓	-
<i>Jeeraka</i> ^[7-9]	✓	✓	✓	✓	✓	-
<i>Sundi</i> ^[20-26]	✓	✓	✓	✓	✓	✓
<i>Methika</i> ^[5-6]	✓	-	✓	✓	-	-
<i>Haridra</i> ^[15-20]	✓	✓	✓	✓	✓	-

Hypoglycemic [65,66,68,77,90-92] effect is shown by *Mandukaparni, Changeru, Kutajabeeja, Marica, Jeeraka Sundi, Dhanyaka, Haridra*. *Mandukaparni, Changeri, Kutaja Marica, Dhanyaka, Jeeraka* and *Sundi* are hypolipidemic drug, [60-62], [93-95]. *Mandukaparni, Changeru, Jeeraka, Sundi* have hypotensive/ cardioprotective action [56, 59, 93-96].

Pattila Curry

It is a recipe made with ten leaves (*Pattila*) which are easily available during rainy season. Dishes are made with individual leaves or in combinations. They are light to digest, promotes the downward movement of *Vata*, rich in fibers and minerals.

Local Name	Sanskrit Name	Botanical Name	Family	Part Used
<i>Thazhutama</i>	<i>Punarnava</i>	<i>Boerhavia diffusa</i> Linn.	Nyctaginaceae	Leaves
<i>Chembu</i>	<i>Dalasarini</i>	<i>Colocasia esculenta</i> (L.) Schott	Araceae	Leaves
<i>Cheera</i>	<i>Palakya</i>	<i>Spinacia oleracea</i>	Amarantaceae	Leaves
<i>Tagara</i>	<i>Chakramarda</i>	<i>Cassia tora</i> Linn	Caesalpiniaceae	Leaves
<i>Payar</i>	<i>Nishpava</i>	<i>Vigna unguiculata</i> (L.) Walp.	Fabaceae	Leaves
<i>Choriyanam</i>	<i>Dusparsaka</i>	<i>Tragia involucrata</i> L.	Euphorbiaceae	Leaves
<i>Chena</i>	<i>Surana</i>	<i>Amorphophallus companulatus</i> Blume.	Araceae	Leaves
<i>Kumbala</i>	<i>Kushmanda</i>	<i>Benincasa hispida</i> (Thunb.) Cogn.	Cucurbitaceae	Leaves
<i>Mattan</i>	<i>Pita kushmanda</i>	<i>Cucurbita maxima</i> Duchesne ex Lam.	Cucurbitaceae	Leaves
<i>Vellari</i>	<i>Trapusa</i>	<i>Cucumis sativus</i> L	Cucurbitaceae	Leaves

Drug	Anti-Oxidant	Immuno modulatory	Anti Inflammatory	Analgesic	Antiviral	Anti Arthritic
<i>Punarnava</i> [38-43]	✓	✓	✓	✓	✓	✓
<i>Dalasarini</i> [97-100]	✓	✓	✓	✓	-	-
<i>Palakya</i> [101-103]	✓	-	✓	✓	✓	-
<i>Chakramarda</i> [104-106]	✓	✓	✓	✓	✓	✓
<i>Nishpava</i> [107-109]	✓	✓	✓	✓	✓	-
<i>Surana</i> [110-113]	✓	✓	✓	✓	-	-
<i>Kushmanda</i> [114-116]	✓	✓	✓	✓	-	-
<i>Kodithuva</i> [117-120]	✓	✓	-	✓	-	-
<i>Pita kushmanda</i> [121-122]	-	✓	-	✓	-	-
<i>Trapusa</i> [123-124]	✓	✓	-	✓	-	-

Dalasarini, Palakya, Nishpava, Dusparsa, Pitakushmanda, Trapusa is proved to have anti diabetic property [123-130]. *Dalasarini, Palakya, Chakramarda, Pitakushmanda* have hypolipidemic activity [126,128,130-133]. *Chakramarda* and *Nishpava* have hypotensive action [134-135].

DISCUSSION

Ayurveda says food as medicine (*Maha bhaishajya*). Detailed descriptions regarding the solid and liquid food substances are available in *Ayurveda* and special emphasize has been given to the regional and seasonal dietetic practices and their benefits. Human body needs to cope up with the environmental changes to stay healthy and an imbalance in which can lead to diseases. The main tools to maintain the equilibrium includes diet practices and daily activities.

According to *Ayurveda* the bodily strength, digestive capacity and immunity of a person is least during summer and rainy seasons due to the extreme climatic characteristics. This makes the person more vulnerable for summer and monsoon borne contagious diseases. *Karkitaka* month falls during rainy season during which there is a seasonal aggravation of *Vata dosa* and can lead to diseases of *vata* origin especially in older adults. Poor digestive capacity can lead to indigestion and formation of *Ama* and ends up in impaired tissue level metabolism and inflammatory changes.

Maintaining the good digestive fire (*Agnibala*) and boosting up the immune system plays key role in preventing these pathological changes and with such an aim the specific *Karkitaka* diet is formulated.

Out of three *Karkitaka kanji* is the most commonly used dietary preparation during these

days. All three holds a high medicinal value as it is processed with a number of herbs. It possesses *Agni deepana* and *Ama pachana* properties hence capable of preventing the tissue level inflammatory changes. Most of its ingredients possess antioxidant and immune modulatory actions which help to keep the immune system intact. Anti inflammatory anti arthritic and analgesic properties helps to reduce the arthralgia and associated issues that can arise due to the seasonal *Vata prakopa*. As these herbs possess antiviral properties which can reduce the risk of spread of viral borne diseases.

CONCLUSION

The concept of foodstuffs as natural medicines is very attractive and an area widely under research that is gaining popularity. Culturally bound time tested regional dietetic practices have an immense potential to contribute into the concept; food and medicine. It is an initial attempt to evaluate medicinal value of the dietary practices during the month of *Karkitaka* and how it can maintain the equilibrium between body and environmental changes. All three special diets possesses anti oxidant, anti inflammatory, immune modulatory etc properties which helps in preventing and curing the seasonal ailments. Further studies are highly recommended to scientifically evaluate the efficacy of such practices in the community.

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