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### Critical Review on YavaguKalpana in ApamargaTanduliyaAdhyaya of CharakaSamhita

K Manjula<sup>1\*</sup>, Vasudevan Asokan<sup>2</sup> and Kulkarni Bhagawan Gangadhar<sup>3</sup>

#### **ABSTRACT**

PathyaKalpanais elaborated based on the management of *Srotodushti*in *ApamargaTanduliyaAdhyaya* of *CharakaSamhita*. On analyzing the nutritive value and healing effect of the Yavagu they can be used therapeutically with a scientific justification. Here it is aimed to analyze the principles of dietetics and nutrition through *YavaguKalpana*. Methodology adopted is critical review and meta analysis through *Samhitas* and e-Resources.

### **KEYWORDS**

ApamargaTanduliyaAdhyaya, CharakaSamhita, Meta Analysis, PathyaKalpana, YavaguKalpana



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<sup>&</sup>lt;sup>1</sup>Department of Ayurveda Samhita&Siddhanta, PIAR, Faculty of Ayurveda, PU, Vadodara; Gujarat, India

<sup>&</sup>lt;sup>2</sup>Prasuti Tantra&StreeRoga, PIA, Faculty of Ayurveda, PU, Vadodara, Gujarat, India

<sup>&</sup>lt;sup>3</sup>Rachana Sharira, PIAR, Faculty of Ayurveda, PU, Vadodara, Gujarat, India



### INTRODUCTION

AgniveshaSamhita also known as CharakaSamhita, were in synonyms of Chikitsa is mentioned as Pathya i.e. which is suitable for respective Srotas<sup>1</sup>. Along with Shodhana and ShamanaChikitsa, emphasis is given for Pathyaahara and Vihara for relief from particular disease entity which is opposite to the causation of diseases. Different PathyaKalpana like Manda, Peya, Vilepi, Odana, Yusha, Mamsa Rasa, Ksheera, TakraKalpana etc. are explained based on the Avastha/Stage of diseases and the strength of digestive power, for example in Kasa, Shvasa, HikkaChikitsa highlights on YushaKalpana; Jvara, AtisaraChikitsa on Yavagu, PeyaPrayoga; Arshas, Udara, Shotha, GrahaniChikitsa emphasize on Ksheera and TakraPrayoga along with other PathyaKalpana.

Highlighting the importance ofPathyaKalpana twenty eight Yavagu's are enumerated and explained in *ApamargaTanduliyaAdhyaya* in Sutrasthana. Yavagu as SamsarjanaDravya been enumerated has *UpakalpaniyaAdhyaya*, its applicability and contraindications are elaborated in ChikitsaSthana and Sidhisthana.

### AIMS AND OBJECTIVES

Critical analysis of YavaguKalpana of ApamargaTanduliyaAdhyaya of Charaka SamhitaSutrasthana.

## MATERIALS AND METHODS

Critical study on CharakaSamhita and Meta-analysis of articles on phytochemical, human and animal experimental study through e- sources.

### YavaguKalpana:

Yavagu is a gruel prepared with 6 times water to nearly thick or semisolid consistency<sup>2</sup>. There are different options regarding basic ingredients of Yavaguwhich are described in the Samhita. Yavagucan be prepared with the following ingredients:

- 1. ShukaDhanyaVarga- Shali, Yava, Shyamaka etc.
- 2. *Drava* it can be either plain water for healthy individual or *Kvatha* prepared from prescribed drugs for the ailments in diseased.
- 3. Adjuvants like *Pippali*, *Shunti*are also used therapeutically.

Method of Preparation: Yavaguis prepared with one part of Tandulacooked well in six parts of Drava Dravyauntil it attains semisolid consistency. The Drava Dravyaused to prepare Yavagumay be plain water or medicated water. Medicated water



is prepared based the on ShadangaPaniyaVidhii.e, one Karsha(12gms) of Churnaboiled in one Prastha(768ml) of water and reduced to half the quantity. Further the method of preparation varies according to the nature of Dravyaas Sushkaor ArdraDravya used in the preparation. Generally preparation of Yavagu, drugs are classified into two:

- 1) VeeryaPradhanaAushadhaDravya
- 2) Rasa PradhanaAharaDravya

VeeryaPradhanaAushadhaDravya will be used to prepare medicated water and they are used to prepare Yavaguwith the Tandula. The proportion of the drugs and water to prepare Kvatha, the base for Yavagu varies based on the nature of the components as tabulated below in table 1.

Table 1 Quantity of Dravya for preparation of medicated water

Sl.	VeeryaPradhanaAushadhaDravya	Example	Quantity
1.	TikshnaVeerya	Pippali, Shunti	1 Karsha (12 gms)
2.	MadhyamaVeerya	Bilva	½ Pala (24 gms)
3.	MruduVeerya	Amalaka	1 Pala (48gms)
4.			

Rasa PradhanaAharaDravya can be used directly to prepare Yavagu using four Pala(192 gms) of Dravya cooked with six parts of water/ medicated water (1152 ml)<sup>3</sup>. Quantity: It may vary subjectively based on Dosha, Bala, Agni, Vaya, Vyadhi, Dravya, Koshta.

### **Purpose of administration:**

- 1. As *AharaKalpana* in certain disorders like *Jvara*, *Raktapitta* etc. to provide strength and to maintain *Agni*<sup>4</sup>.
- 2. To provide *Upachaya* to the body. Eg: *Garbhini Paricharya*<sup>5</sup>, *Mandagni*, *Krusha*
- 3. As *Purvakarma*,Eg: Raktamokshana<sup>6</sup>, Shastra Karma.
- 4. For *Shodhana*a long with medicines. Eg: *NilanyadiChurna* with

Yavagu to induce Virechana in Gulma<sup>7</sup>, VamakaDravya with Yavagu to induce Vamana in Rajayakshma<sup>8</sup>

- 5. After *Shodhana* as *SamsarjanaDravya*<sup>9</sup>.
- 6. As *Pathya* in diseased condition to pacify *SheshaDosha*, to induce strength Eg: *Jyara*

**Benefits**: It does *Agni Deepana* due to its LaghuGuna and based on the drugs used to process the Yavagu, it provides the VataMutraPurisha *AnulomanaGati* to and Dosha due to Sara Guna, induces Svedanadue to its Drava and UshnaGuna, pacifies thirst due to Drava Guna, it provides strength (Prana) as it is a food supplement, it induces lightness to the body Guna<sup>10</sup>.Contra due its Laghu to



**Indication**: GrishmaRitu, Pitta Kaphadhika, MadyaNitya, Madatyaya, Urdhvaga Raktapitta<sup>11</sup>.

**Table 2** Following *Yavagu*are explained in *ApamargaTanduliyaAdhyaya* 

Sl	Yavagu	Ingredients	Benefits
1.	DeepaniyaYavagu	Pippali, Pippalimula, Chavya, Chitraka, Nagara.	Agni Deepana, AmaPachana
2.	KapithadiYavagu	Kapitha, Bilva, Changeri, Takra, Dadima	AmaPachana, Grahi
3.	PanchamulaYavagu	LaghuPanchamula	Swedana, Deepana
4.	ShalaparnyadiYavagu	Shalaparni, Bala, Bilva, Prishniparni, DadimaAmla Peya	Pachana, Grahi
5.	HriberadiYavagu	Hribera, Utpala, Nagara, PrushniparnisadhitaAjakshira	RaktaAtisara
6.	AtivishadiYavagu	Ativisha, Nagara, AmlaDadima	AmaPachana
6. 7.	ShvadamshtradiYavagu	Shvadamshtra, Kantakari , Phanita	Mutrakruchra
8.	VidangadiYavagu	Vidanga, Pipplalimula, Shigru, Marichakalka, SauvarchalaLavana	KrimiChikitsa
9.	MrudvikadiYavagu	Mrudvika, Sariva, Laja, Pippali, Nagara, Madhu	Trushnaghna
10.	SomarajiYavagu	Somaraji	Vishaghna
11.	BruhmaniyaYavagu	VarahaMamsa Rasa is used as liquid media for preaparation of Yavagu.	Bruhmana
12.	KarshaniyaYavagu	Gavedhuka, Madhu	Karshana
13.	SnehaniYavagu	Tila, Ghruta, Lavana	Snehana
14.	VirukshaniYavagu	Shyamaka processed with the Kusha and AmalakaSwarasa	Virukshana
15.	DashamuoolaYavagu	Yavagu Prepared in DashamulaSadhitaJala	Kasa, Hikka, Shvasa
16.	PakvashayaRujapahaY avagu	Yamaka, BhrushtaTandula, Madira.	RujaharaYavagu
17.	VarchoNirasanaYavag u	Shaka(leafy Vegetables), Mamsa, Tila, Masha	Varchonirasyati
18.	ChitrakadiYavagu	Kshara, Chitraka, Hingu, Amlavetasa	VarchoBhedini
19.	JambvadiYavagu	Jambu, Amrasthi, DadithaAmla, Bilva	PurishaSamgrahana
20.	Abhayadiyavyagu	Abhaya, Pippalimula, VishvaChurna	Vatanulomani
21.	SnehaVyapatNashakaY avagu	TakraSadhitaYavagu	SnehaVyapatNashaka
22.	GhrutaVyapatNashakY avagu	TakraPinyakaSadhita	GhrutaVyapatNashak a
23.	VishamaJvaraNashana Yavagu	Gomamasa rasa SadhitaYavagu added with AmlaDravya	VishamaJvara
24.	KantyaYavagu	Yava prepared with Kvathaof Pippali, Amalaka rasa added with Yamaka.	Kantya
25.	RetomargaRujapaham	Tamrachuda Rasa SadhitaYavagu	RetomargaRuja
26.	VrushyaYavagu	Masha Vidala prepared with Kshira added with Ghrita	Vrushya
27.	MadavinashiniYavagu	Upodikashaka prepared with Dadhi	Mada
28.	KshutNashakaYavagu	ApamargaTandulaYavagu prepared using decoction of Kshira, Godharasa	Kshudhahara



### **DISCUSSION**

DeepaniyaYavagu: Carminatives soothe the gut wall, ease griping pains and reduce the production of gas in the digestive tract due to the volatile oils present in it. It acts by local anti-inflammatory, anti-spasmodic and anti-microbial on the mucosa and the muscle coats of the alimentary canal. Important phytochemicals present in the ingredients of DeepaniyaYavgu isPiperine which enhances digestion by stimulation of the pancreatic enzymes and decreases the food transit time of gastrointestinal tract. Increases the saliva production and gastric secretions, and increases the production and activation of salivary amylase. Stimulate the liver to the secrete bile acids which in turn play key role in the absorption and digestion of fats. An influence on digestive enzymes of intestinal mucosa were examined in experimental rats fed with piperine (20 mg%) which significantly increased the activity of intestinal lipase, disaccharidases, sucrase and maltase enzymes<sup>12</sup>.

### AamaAtisaraNashakaYavagu:

Dadithahelps in reducing the weight of faeces and reduces the GI motility<sup>13</sup>. Due to the presence of large quantities of mucilage and other phytochemicals *Bilva*is effective in chronic cases of diarrhoea, irritable bowel syndrome and physiological

diarrhoea<sup>14</sup>. *Changeri*prolongs the time of onset of diarrhoea and inhibits the frequency of defecation. The reduced gastro intestinal motility along with anti secretory activity is the action of *Dadima*<sup>15</sup>.

MutraKruchraharaYavagu: Diuretic drugs enhance the urine output by altering functions through different renal mechanisms. Inhibition of Sodium reabsorption is the mechanism of most diuretic drugs at different segments of the renal tubular system. The aqueous extract of Shvadamshtra, was found to elicite a with positive diuresis. increased concentration of Sodium and Chloride in the urine. Together with the diuretic activity it increases the tonicity of the smooth muscles, which helps in the propulsion of stones along the urinary tract<sup>16</sup>.

Karshaniya Yaagu: The experimental study of aqueous extract of *Gavedhuka* (Coixlachrymajobi var. mayuen) in the obese rats suggested that the seeds regulate feeding behavior and also neuroendocrine activities which can be observed by reduced body fat mass, body weight, serum leptin level, immune activities of neuropeptid Y and Leptin Receptor<sup>17</sup>.

**BruhmaniyaYavagu:** Animal Meat is mainly composed of Protein which usually contains essential amino acids that are almost identical to that of human muscles, needed for the growth and maintenance.



Also it contains the fat which provides energy. Meat is also an excellent source of various vitamins and minerals which are important for the formation of blood.

VirukshaniyaYavagu: Shyamaka has hypocholesterolaemic and hypoglycaemic effects. It also reduces the nutritive value by binding the food proteins and carbohydrates into insoluble complexes which cannot be broken by the digestive enzymes. It also inhibits the activity of sucrase, amylases, trypsin, chymotrypsin and lipases by direct binding of digestive enzymes.

*KantyaYavagu:Yava* showed the antiinflammatory action by inhibiting both cyclooxygenase, lipoxygenase pathways in an experimental study<sup>18</sup>.

### RetomargaRujapahaYavagu:

Tamrachuda Rasa (Chicken broth) is rich in carnosine, an amino acid which helps to reduce the inflammatory compounds like cytokines; with rich collagen and Glycine component it also aids in the repair of damaged tissues.

VrushyaYavagu: Masha is rich in proteins which promotes level of energy and lowers fatigue. Mineral iron present in it, helps to maintain the vitality. It is considered to be ShukraPravartakaandRechaka which increases the production of semen and helps in ejaculation. Masha having Madhura Rasa, shows the properties of Santarpana, Balya, and Shukraprataka. Milk also has

the same properties of Madhura Rasa and Vipaka and Rasayana, Balya and Medhya. Probably synergistic effect of both drugs may lead to stimulant effect, on endocrine glands. This affects testis as well as accessory sex glands and results in improved qualities and quantity of semen<sup>19</sup>. PakvashayaRujapaha: Fermented foods are rich in lactic acid-producing bacteria, which can survive in the human digestive tract and populate in gut, temporarily<sup>20</sup>.

VarchoNirasanaYavagu: The definition of constipation is infrequent bowel movements that may be painful or difficult, along with hard stool. Masha (blackgram), Shaka, Tila all are rich in dietary fiber which acts as a bulk laxative. It works by increasing the water content and bulks up the stool in the digestive tract and stimulates peristalsis.

VarchoBhediniYavagu: Stimulant laxative influence the lining of the intestine, accelerating the bowel movement by increasing the peristalsis. Kshara, Chitraka, Hingu all are KatuRasayuktaDravya which has Lekhana and Anulomana Karma. Both the above Yavagu can be used in post operative care for constipation.

*VatanulomaniYavagu*: *Abhaya* is used as a cardiotonic, diuretic and laxative which is rich in sapogenins, saponins, anthraquinone derivatives, flavonoids, and tannins. Laxative effect of *Abhaya* may be attributed



to anthraquinones. *Abhaya*helps in proper absorption of liquids in undigested material and helps in separation of fecal matter and maintains its normal consistency. It breaks the lineage between fecal matter and intestinal walls thus relieving constipation. It also stimulates the enteric nervous system to accelerate the intestinal motility.

*MadavinashiniYavagu*: Acetaldehyde the byproduct of alcohol converted by the liver, requires rapid elimination out of the body. Probiotics like curds help to metabolize the alcohol as well as the breakdown products of alcohol. *Upodika* (*Basellaalba*) along with androgenic, antidiabetic, anti-inflammatory, antimicrobial, antioxidant, antiulcer also has hepato-protective effect. Consumption of alcohol impairs folate absorption, spinach is rich in folate and helps to maintain the adequate levels <sup>21</sup>.

KshudhaharaYavagu: Reptiles are also found among the MamsaVargamentioned in Samhita. There are many types of proteins that can be gained from the reptiles. ApamargaTandula (seeds of Achyranthesaspera) were used for reducing the hunger. An experimental study on rats fed with Methanol extract of alkaloid rich fraction of seeds of Achyranthesaspera (MEARFAA), elicited that there was decreased consumption of food in rats fed with MEARFAA<sup>22</sup>.

### **CONCLUSION**

With this Meta analysis of data related to phytochemical study, human and animal experimental study on various drugs and formulations of the *YavaguKalpana* explained in

*ApamargaTanduliyaAdhyaya*of

CharakaSamhita Sutra Sthana we can scientifically prove the action of YavaguKalpana. Its not single drug but combination of various drugs plays part in exhibiting the action. Thus we can conclude that the Samskara and Samyogathrough PathyaKalpanaplays an important role in preventing and curing the disease. So ApamargaTanduliyaAdhyayaof

CharakaSamhitais a treasure house to the field of Dietetics and Nutrition through Ayurveda.

**Conflicts of Interest: Nil** 



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