

THE ROLE OF PATHYA AND APATHYA IN KAMALA-A LITERARY REVIEW

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ABSTRACT

Ahara is considered one among the *Trayopasthamba* thus, *Ayurveda* emphasizes on importance of *Pathya Ahara* and *Vihara* in maintaining Health and curing the diseases for prompting the good health. *Pathya Ahara* nourishes the body and mind, whereas *Apathya Ahara* and *Vihara* affects the body. *Kamala* is one of such disease. Here Present study is carried with an aim to have the proper understanding of role of *Pathya* in the management of *Kamala* with special reference to *Pathya* and *Apathya* in *Ayurveda*. Now a days due to Ever increasing stress, irregular eating habits, and excessive travel, High alcohol consumption, high intake of packaged and processed food, pollution and infections are all factors have given birth to various diseases. *Kamala* is usual manifestation seen in clinical practices. The etiological factors plays a important role in manifestation of *Kamala*. *Kamala* is a *Pittaja Nanatmaja* as well as *Rakthapradhoshaja vyadhi*, its main pathogenesis occurs due to *pittakara Ahara* and *Vihara* followed *Pandu* or independently. Disease *Kamala* is related to Liver. The Liver plays a major role in the maintenance of Metabolic Homeostasis. *Ayurveda* considers appropriate diet in particular disease is as powerful as medicine. So Suitable *Pathya* place an important role. So Liver is not bothered and self healing of affected Hepatocytes takes place. So by the different view of *Samhita*'s, scientifically explained the intake of fat free, rich in protein and carbohydrate diet. *Pathya Ahara* and *Vihara* has been exclusively mentioned for *Kamala* in *Ayurveda*.

KEYWORD: *Pathya Apathya Ahara* and *Vihara*, *Kamala*, Jaundice.

INTRODUCTION

Kamala is a *Pittaja Nanatmaja*,^[1] as well as *Rakthapradhoshaja vyadhi*.^[2] *Charaka Samhita* has considered *Kamala* as advanced stage of *Pandu roga*. When a person intakes *Pittakara ahara* then he may develop *Kamala*. *Sushruta Samhita* has considered as *Kamala* as a separate disease and also may be due to complications of *Pandu roga*. *Astanga Hrudaya Kamala* which is caused by excessive increase or aggravation of *Pitta*, may occur with or even without manifestation of *Pandu roga*. In classical texts of *Ayurveda* we came across the explanation of *Rakthapradhoshaja vikaras*. Among them *Kamala* is also an important disease. When we are looking for *nidhana*'s explained for manifestation of *Kamala* are similar as that of *nidhanas of Raktavaha srotodushti*. Hence it is clear that *Rakta* and *Pitta* are *Ashrayashrayi* the *vardhana* and *khsapana* of both is dependent each other. Disease *Kamala* which has great resemblance with the Jaundice of modern medical sciences. The Liver plays major role in the maintaince of metabolic Homeostatis. The word "*Kamala*" is derived from the root word '*kamu*' means *kanti* and '*lunaati*' means *nasha*, and "*kanthi lunathi*" means a condition in

which normal color of a skin is lost. In this *vyadhi*, the hunger and appetite for food is diminished and all the *mala* get vitiated and discolored.^[3] *Charaka Samhita* had stated that wholesome food is one of the causes for the growth and well being of Humans while Unwholesome food is the cause food is the root of all the Disease.^[4] *Sushruta samhita* had further supported the fact by stating that food is the cause of Vitality, strength, complexion and Ojas.^[5]

AIM AND OBJECTIVE

To asses dietary factors which play a major role in *Kamala*.

MATERIALS AND METHODS

Etiology: In *Charaka Samhita*, mentioned that the disease *Kamala* represents a state of the *Panduroga* associated with specific etiological factors^[6]. According to *Susrutha Samhita*, at the end of *Pandu roga* or any other disease, if a patient indulges in *pitta prakopa ahara*, gives rise to *Kamala*.^[7] According to *Astanga Hrudaya*, *Kamala* which is caused by aggravated *Pitta*, may occur with or without *Pandu roga*.^[8] The etiological

factors of *Kamala* which is explained in the Charaka samhita may be classified into following groups^[9]

- Aharaja nidhanas [Diet and dietetic pattern]
- Viharaja nidhanas [Faulty lifestyle]
- Manasika nidhanas

A. Aharaja nidhanas [Diet and dietetic pattern]

Atikshara sevana causes *Pitta prakopa*.

Ati amla rasa sevana causes *Shitilatha* of *dhatu*, *pitta prakopa* and vitiation of *Rakta*. Hence excessive intake of *Amla rasa* can also cause *kamala*.

Intake of *Lavana rasa* excessively causes *Pitta prakopa* and *Pramanataha Vrudhi* of *Rakta* due to its *Ushna*, *teekhsana*, and *snigdha* properties contributes to the *Kamala Samprapti*.

Intake of *Ati Ushna ahara* leads to Impairment of *Agni*.

Virudha ahara: "Virudha" means is the term for incompatible or antagonistic. Substances which act as antagonist to normal *Dathu* of the body called as 'Virudha' in Ayurveda. Due to *Virudha ahara* *Agni* gets vitiated. This vitiated *Jatharagni* does not digest even the lightest food substance resulting in indigestion food results to *Amavisha* and also vitiates *Srotas*.

Asathmya ahara: Having food in state which is not consistent and not pertaining to the person is called *Asathmya ahara*.

Excessive intake of *Nishpava* causes *Pittaasrakrut* due to its *Sara*, *Vidahi guna* and *Ushna Veerya*.

Masha which is having *Karma* of *Kapha Pittakara* leads to causative factor for *Kamala*.

Pinyaka is Oil Cake having *guru* and *Vidahi* properties leads *Pitta prakopa* due to its *Vidahi Guna*.

Ati Tila sevana having *Ushna Veerya* and *Vidahi* Properties, excessive indulgence causes *Pitta Prakopa*.

Madya is one of the major cause for *Kamala* which is mentioned by Our Acharyas. *Madya* is Known for its *Teekshnata*, *ushnata*, *vyavayi*, *vikasi*, *sukshma*, *rukhsa* and *Vidahi* properties. It makes *Anna rasa utkleda* and *Vidagdha* ultimately which leads to the *Pitta* and *Rakta* dushti. Therefore Acharya explained that if *madya* is used with proper *yukti*, act like nectar, but improper usage of *madya* proves to be fatal. *Madya* due to its fatal. *Madya* due to its above said gunas causes *Pittaprakopa*, *Oja nashaka* and *Rakta dushti* karaka.

B. Viharaja nidhana's [Faulty Lifestyle]

Indulgence in *Divaswapna*, *Vyayama*, *Maithuna* after *Vidagdha Anna*, where *Divaswapna* means sleeping in day time. Except *Greeshma rutu* day sleeping is not advocated. By doing *Divaswapna*, there will be *Kapha* and *Pitta prakopa*. People with such lifestyle are more prone to get diseased.

Vyayama even it is good for the health, Acharyas advised to perform only half the capacity of an individual, if *Ati Vyayama* is done, without proper food and rest, there are chances of severe *Vata Prakopa*.

Ati-Maithuna which leads to *Vata Prakopa*.

C. Mansika nidhanas [Psychological life style]

Manasika nidhanas mentioned specifically mentioned are *Kama*, *chinta*, *Bhaya*, *Shoka*, *Krodha*. where In *Charaka Samhita* has stated that *Kama*, *chinta*, *bhaya*, *shoka* which leads to *Vatapitta prakopa* and *Krodha* which leads to *Pitta Prakopa* and psychological character also plays an important role in proper digestion of food. He has expressed that even the suitable food taken in proper quantity does not get properly digested when the individual is afflicted with grief, fear, anger, sorrow, excessive sleep etc, in long run these may also precipitate into the vitiation of *Agni*, thus this improper digestion resulting in the deficient Production of *rasa dhatus* which further affects the Production of *Rakta dhatu*.

Review on Pathya in Kamala^[10]

ताभ्यां संशुद्धकोष्ठाभ्यां पथ्यान्यन्नानि दापयेत्।

शालिन् सयवगोधूमान्पुराणान् यूषसंहितान्॥४१॥

मुद्गाढकीमसूरैश्च जाङ्गलैश्च रसैर्हितैः।

यथादोषं विशिष्टं च तथाभैषज्यमाचरेत्॥४२॥

[च चि १६/४१-४२]

Here after the treatment for *Kamala* must done with *Mrudu Virechana Samshodhana* i.e, Purgation therapy, One who is having *Samshudhakoshta* should take *Pathya ahara* those are *Purana Shali*, *Yava*, *Godhuma* and *Mudga*, *Adhaki*, *Masura yusha* and *Jangala mamsa rasa* which are having less fat content that is good for fat metabolism of liver in this condition so here importance of the *Pathya* can be seen.

Table 1: Description of *Pathya* In *Kamala* described in various *Samhitas* mentioned.^[11,12,13,14,15,16,17,18]

<i>Pathya</i>	<i>Charaka</i>	<i>Susrutha</i>	<i>Vagbhata</i>	<i>Yogaratanakara, Bhavaprakasha, Haritha samhita, Gadanigraha, Vangasena, Madhava chikitsa</i>
<i>Purana Shali</i>	✓	✓	-	✓
<i>Purana Yava</i>	✓	✓	-	✓
<i>Purana Godhuma</i>	✓	-	-	✓
<i>Mudga yusha</i>	✓	-	-	✓
<i>sAdhaki yusha</i>	✓	-	-	✓
<i>Masura yusha</i>	✓	-	-	✓
<i>Jangala mamsa rasa</i>	✓	✓	-	✓
<i>Mrudvika rasa</i> <i>Amalaka rasa</i>	✓	-	✓	-

Mamsa rasa with snigdha and Amalaka rasa	-	✓	-	-
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Table 2: According to Bhaishajya Ratnavali and Vaidya chintamani.^[19,20]

Varga	Dravya
Shuka dhanya varga	Purana Shali, Purana Yava, Purana Godhuma
Shami dhanya varga	Mudga, Adhaki, Masura
Mamsa varga	Jangala mamsa rasa, Tittira, barhi, Daksha
Shaka varga	Patola, Vrudhakusmanda, Jeevanti, Nagakesara, Palandu, Lashuna, Vartak, Drona Pushpi, Punarnav, Tanduliyaka, Guduchi, Matsyakshi
Phala varga	Dhatri, Pakva Amra, Abhaya, Taruna khadali phala
Ikshu varga	Ikshu Rasa
Gorasa varga	Ksheera, Takra, Navaneeta, Grutha
Mutra varga	Gomutra
Madya varga	Souviraka, Tushodaka
Anyā	Haridra, Chandana, Yavakshara, Lohabhasma, Kunkuma Kashaya





Table no. 3: Apathya ahara and Vihara.

Aharaja Apathya	Ahara Dravya: Shimbi dhanya, Vidahi Dravya, Guru Ahara, virudha ahara, teekshana lavana Dravya: Masha, Hingu, Pinyaka, Tambula, Sarshapa Drava Dravya: Dustambu, Sura, Vindya Adrija, Nadi jala, Amla souviraka, Bijapura Taila
Viharaja Apathya	Panchakarma: Raktamokshana, Dhumpana, Swedana Vamana vegadharana, Mrudbhakshana, Maituna, Atapa, Ayasa, Vanhi Sevana
Manasika Apathya	Krodha

DISCUSSION

Modern Dietic recommended Diet depending upon the constituents that will help the daily requirements of body such as in term of Calories, Carbohydrates, Fat and

Protein etc. In Ayurveda while going through Pathya ahara scientifically explained the intake of Fat free, rich in protein and carbohydrate diet.

 <p>Purana Yava^[21]</p>	Due to its Madura and Kashaya Rasa, Sheeta veerya Pacifies Pitta, as Kamala is a Pittaja nantamaja vyadhi, It is said that it cures Pittajamaya so it can helpful in curing Kamala. Each 100gm contains Moisture: 12.5gm, Protein: 11.5gm, Fat: 1.3gm, Carbohydrate: 70gm, Iron: 1.6gm.
 <p>Purana Shali^[22]</p>	which is Shigrapaaki, laghu which helps in correction of Agni, due to its sheeta virya Madura rasa and Vipaka which Pittahara. Each 100gm contains Moisture: 13.7g, Protein: 7.5gm, Fat: 0.05gm, Carbohydrate: 78.2gm, Calcium: 10mg, Phosphorous: 160mg and Iron 0.7 mg.
 <p>Purana Godhuma^[23]</p>	Purana Godhuma which is having Madhura rasa and Sheeta virya pacifies Pitta, which is having property of Pittahara. The special property of Sandanakara helps in repairing the damaged cells in liver. Each 100gm contains Moisture: 12.8gm, Protein: 11.8 gm, Fat. 1.5 gm, Carbohydrate: 71.2gm, Iron: 5.3mg.
 <p>Mudga^[24]</p>	Mudga is Madhura, kashaya rasa, sheeta virya, katu viapki. Due to its kapha Pittashamaka -doshakarma which pacifies the pitta, Due to its vishada guna clears the obstructed body channels, digestive and metabolic Pathways. Each 100gm contains Moisture: 12.4gm, Protein: 25.1gm Fat: 0.7gm, Carbohydrate: 59gm, Iron: 4.4mg.

<p><i>Ahadaki</i>^[25]</p> 	<p><i>Ahadaki</i> A/C Bhavapraksha Due to its madhura and kashaya rasa and Sheeta virya which alleviates pitta. It cures the diseases which are vitiated by Pitta, Rakta, Kapha. Each 100gm contains Moisture: 13.4gm Protein: 22.3gm Fat: 1.7g, Carbohydrate: 57.6gm, Iron : 4.4mg.</p>
<p><i>Masura</i>^[26]</p> 	<p><i>Masura</i>, due to its <i>Madhura rasa</i> and <i>sheeta virya guna</i> leads to <i>Pitta Shamana</i>, Each 100gm contains Moisture: 12.4gm, Protein: 25.1gm, Fat: 0.7gm, Carbohydrate: 59gm, Iron : 4.4mg.</p>
<p><i>Jangala Mamsa rasa</i>^[27]</p> 	<p><i>Jangala Mamsa rasa</i> which is having <i>Isatsnigdata</i> [less fat content], <i>laghu</i> for digestion due to its <i>Vishada guna</i> helps in clearing the channels also have <i>balya</i> properties. It is a protein of high biological value [first class protein]. It is essential for the formation of hemoglobin. Vitamin B12 is available only in animal tissues, which is essential for maturation of erythrocytes.</p>
<p><i>Shaka Varga</i>^[28]</p> 	<p><i>Tanduliyaka</i> is rich iron content and dietary fibers and it is the power house of iron, vitamins and minerals. The presence Lysine (amino acids) helps to fight against free radicals.</p> <p><i>Taruna kadali</i> rich in dietary fibers, unsaturated fatty acids, proteins, vitamin E and flavonoids.</p>
<p><i>Ikshu Rasa</i>^[29]</p> 	<p><i>Kushmanda</i> a good source to maintain energy levels. Which is rich in vitamins B1 B3 and C possesses various minerals like calcium, sodium, potassium, selenium and 96% of water.</p> <p><i>Ikshu varga</i> act as <i>Pittashamaka</i> by its Properties <i>Madhura, Sheeta virya, snigdha</i> and <i>Avidahi guna</i>. It is rich in iron, magnesium, calcium and other electrolytes. Each 100gm contains, Moisture: 90gm, Protein: 0gm, Fat: 0gm, Carbohydrate: 20.7gm.</p>
<p><i>Phala varga amra phala</i>^[30]</p> 	<p><i>Amra phala</i> Due to its madhura, kashaya rasa and sheeta virya which alleviates pitta. It is <i>Apittala</i> so indicated in <i>Kamala</i>. $\frac{3}{4}$ cup pieces Protein: 1gm, Fat : 0gm, Carbohydrate: 19gm, Iron : 0.2mg</p>
<p><i>Amalaki</i>^[31]</p> 	<p><i>Amalaki</i> which is <i>pitta pradhana Tridosha Shamaka</i>, Each 100gm contains Protein: 1gm, Fat: 0.5gm, Carbohydrate: 10gm, Vitamin C: 478mg. It is Hepatoprotective which is richest source of Vitamin C which reduces the ferric iron into ferrous and helps in producing red blood cells.</p>
<p><i>Haritaki</i>^[32]</p> 	<p><i>Haritaki</i> Each 100gm contains Protein: 1gm, Fat: 0.5gm, Carbohydrate: 10gm, Vitamin C : 478mg. It increases the activities of antioxidant enzymes which in turn obviously protect liver for oxidative damage.</p>
<p><i>Go rasa drvays</i>^[33]</p> 	<p><i>Ghrita</i> act as a <i>tridoshashamaka</i> mainly act as a <i>Pittashamaka</i>. It having properties of <i>Agnideepana, ojovardhaka, vrushya</i>, impure quality of <i>medha dhatu</i>. It act as <i>yogavahi</i> means can use a <i>anupana</i>, it enhance the medicinal qualities of Properties. <i>Grita</i> contains beta carotene (600mg) and vitamin E both of which are antioxidative.</p> <p><i>Takra</i> is <i>tridosahara, shotaghna, aruchi, Pandu nashaka</i>.</p> <p><i>Navaneeta</i> act as <i>Grahi, Deepana, Hridya and Ruchya</i>.</p>

	Gomutra which is
Madhya varga ^[34]	Souveeraka and Tushodaka having Deepana, Pachana, Hridroga, Pandu, Kruminashaka properties.

Apathya ahara

Masha^[35] which leads to *Pittaprakopa*, Each 100gm contains, Moisture:gm, Protein:11.8 gm,

Fat :1.5 gm,Carbohydrate: 71.2gm,Iron : 5.3mg.

Sarshapa^[36] which is having *Katu, tikta rasa and katu Vipaka* and it will lead to *pitta* and *Rakta vardhana*.

Shimbi^[37]dhanya which is rooksha and it is *vistambi* so one should avoid its intake.

By eating *Vidahi Ahara*^[38] causes *Hrut kanta daha* and *amla udgara* which leads to *Pitta Prakopa*.

Virudha adhyashana^[39] which causes

Guru Anna^[40] which leads *Agnimandya*.In Charaka Samhita it is described “*Gurubhojana Durvipakakaranam*”(Ahara in guna and in quantity too).

Divaswapna^[41] (sleep during the day) vitiates *Tridosha* an mainly *Kapha Dosha.Vata dosha* may get vitiate by Maituna.

Atapa and *agni sevana*^[42] which causes *pitta prakopa* that can lead to increase in *Lakshanas of Kamala*.

CONCLUSION

In the Ayurvedic literature *Kamala* would be point out to a disease condition in which hunger and appetite for food are diminished. Since liver is the largest gland, which is the main site for metabolism of Bilirubin and detoxification. So our *Pathya's* which is mentioned in our classics are having low fat and rich in Carbohydrate and protein which helps in easy metabolic process of liver, If pathya is advised in early stage of kamala, the management of further disease progression can be reduced. Even in different stages of *Kamala* as told by our acharya's after *Samshudha koshta* adopting *Pathya* will definitely helpful in minimizing the further complications by promoting strength in an individual.As in *Vaidya jeevanam*^[43] told importance of *Pathya ahara* stating if the patient intakes *Pathya* then there is no need of *Aushada* and if a Patient continuously consumes *Apathya* then also there is no need of *Aushada*. Hence proper understanding of *Nidana, Samprapthi, Chikitsa* along with *Pathya* and *Apathya* plays important role in curing the disease.

REFERENCE

1. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, chapter, Chaukhambha Surabharati Prakashana Varanasi, 2015; 114: 20 – 14.
2. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, chapter Chaukhambha Surabharati Prakashana Varanasi, 2015; 179: 28 – 11, 12.
3. Raja Radhakantadev Bahaddur. Shabdakalpadruma Naga Publication. Delhi, 1987; 2: 60.
4. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 133: 25, 45 – 47.
5. Acharya Sushruta, Sushruta Samhita, Nibandha sangraha Commentary by Dalhanacharya, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, Chaukhambha Orientalia, Varanasi, 2014; 214: 46.
6. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, chikitsasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 528: 16 – 34.
7. Acharya Sushruta, Sushruta Samhita, Nibandha sangraha Commentary by Dalhanacharya, Edited by: Vaidya Yadavji Trikamaji Acharya, uttaratantra, Chaukhambha Orientalia, Varanasi, 2014; 728: 44 – 10.
8. Vagbhata, Ashtanga Hridaya, Nidanasthana Sarvanga sundara and Ayurveda rasayani commentary of Arunadatta and Hemadri. Pandit Hari Sadashiv Sastri Paradkar, Chaukhambha Surabharati Prakashan. Varanasi, 2014; 519: 13, 15 – 17.
9. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, chikitsasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015. 526, 16: 7 – 9.
10. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, chikitsasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 529: 41 – 42.
11. Acharya Sushruta, Sushruta Samhita, Nibandha sangraha Commentary by Dalhanacharya, Edited by: Vaidya Yadavji Trikamaji Acharya, Uttaratanttra, Chaukhambha Orientalia, Varanasi, 2014; 728, 4: 36 – 37.
12. Vagbhata, Ashtanga Hridaya Sarvanga sundara and Ayurveda rasayani commentary of Arunadatta and Hemadri, Edited by Pandit Hari Sadashiv Sastri Paradkar, Chikitsasthana chapter 16. Verse 49-50 Chaukhambha Surabharati Prakashan. Varanasi. Edition 2014. Page no.519
13. Yogaratnakara by Vaidya Lakshmipati Sastri edit by Brahmasankar Sastri chaukhamba Prakashan,Pandurogadikara Verse, 2015; 71: 95 – 96.
14. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 1997; 8: 58.
15. Harita Samhita by Ramvalemba shastri(Panduroga chikitsa),Varanasi; Prachya Prakashan, 1999; 1, 86: 8, 34-36.

16. Gada Nigraha By Sri Vaidya Shodala Virachita with Hindi Commentary By Chapter, 7: 70.
17. Vangasena Samhita with Hindi Commentary By Prof. Hariharapsad Tripathi chapter, 44, 133: 548.
18. Madhava Chikitsa by Acharya Madhava with English Translation and Commentary By Dr Krishnamurthy M S Chapter 8 Pandukamala roga chikitsa Chaukhambha Orientalia Varanasi, 2017; 58: 21.
19. Bhaishajyaratnavalli by Kaviraj Govinda Das sen Edited with Hindi Commentary by Prof. Siddhi Nandan Mishra; Chapter 12 Pandurogadikara Chaukhambha Orientalia, 2015; 388: 143 – 152.
20. Vaidya chintamani By Sri Vallabhaccarya edited By Dr.K Rama Chandra Reddy Chapter 7 Kamala Prakarana Chaukhambha Orientalia Varanasi, 2013; 330: 67 – 74.
21. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 429: 27 – 30.
22. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 429: 22 – 26.
23. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 430: 31 – 35.
24. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 431: 38 – 40.
25. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 434: 51 – 52.
26. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 50: 434.
27. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 14: 476.
28. Mahesh R B.Harshita KJ.Tripathy TB.Know the Vegetables before you eat-A Nutritive review of shaka varg.World journal Pharmaceutical and Medical research, 2017; 3(10): 112-119.
29. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 554: 1 – 2.
30. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 362: 14.
31. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 1997; 4, 434: 38 41.
32. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 6, 132: 19 – 22.
33. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Gorasavarga Chaukhambha Orientalia Varanasi, 2015; 6: 524-539.
34. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 7, 9: 545-546
35. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 432: 41 - 43.
36. Bhavapraksha of Shri Bhava Mishra with English Commentary By Dr Bulusu Sitaram, Chaukhambha Orientalia Varanasi, 2015; 438: 69 – 71.
37. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 27: 32.
38. Acharya Sushruta, Sushruta Samhita, Nibandha sangraha Commentary by Dalhanacharya, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, Chaukhambha Orientalia,Varanasi, 2014; 21: 10.
39. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 124: 24, 5 – 10.
40. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Sutrasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 132: 25 – 40.
41. Acharya Sushruta, Sushruta Samhita, Nibandha sangraha Commentary by Dalhanacharya, Edited by: Vaidya Yadavji Trikamaji Acharya, Sharirasthana, Chaukhambha Orientalia, Varanasi, 2014; 4: 38.
42. Agnivesha, Charaka Samhita, Ayurveda Deepika commentary of Chakrapani, Edited by: Vaidya Yadavji Trikamaji Acharya, Chikitsasthana, Chaukhambha Surabharati Prakashana Varanasi, 2015; 502: 14, 11 – 13.
43. *Vaidya jeevanam* By Lolimbaraja with Hindi Commentary By Dr Indra deva Tripathi Chaukhambha Orientalia, Varanasi Reprint Third, 1998; 4: 10.