

A CONCEPTUAL STUDY ON PROPER INTAKE OF VEGETABLES (*Shaaka Dravya*) WITH SPECIAL EMPHASIS ON COOKING METHODS

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ABSTRACT

Introduction - In *Ayurveda*, vegetables are described under the title of *Shaaka varga*. In contrast to the famous trend of use, many *Ayurveda* texts limit the daily and abundant use of vegetables. *Ayurveda* also prescribes guidelines for proper cooking of vegetables as well. **Aim** -To frame the guidelines for proper intake of vegetables with special emphasize on their proper cooking methods. **Materials and Methods** -Available References of *Shaaka varga* from *Ayurvedic* texts and Research papers available on internet are critically reviewed and analyzed.

Discussion- *Acharya Caraka* has mentioned *Ashta-ahara-vidhi-vishesh-ayatanani* (eight points) which determines the utility of various types of food article. This includes inherent property, processing methods, combination with other component of meals, habitat, and time etc. type of factors. Eight points of guidelines also emphasizes dietetic rules of *Ayurveda*. *Caraka* mentioned that all the *Shaaka dravyas* become wholesome for intake when they are boiled, drained of the juice, and added with fatty substances. It is believed that vegetables should be eaten as raw form to gain maximum nutrition from them. Apart from that, all *Shaaka dravyas* are *Guru* (heavy to digest), *Ruksh* (un-unctuous), *Vishtambhi* (produce flatulence) and it causes many health issues. In *Ayurveda*, different vegetables have different cooking methods. Some should be prepared in water, some in oil and some in buttermilk with proper spices. Hence, one should follow these cooking methods to gain maximum nutrition from vegetables. **Conclusion**- *Shaaka* is described as *vyanjana*, part of meals as condiments to increase the taste. The Proper cooking methods of vegetables should be followed for maximum benefits.

Keywords: Cooking method, raw vegetables, *Shaaka varga*.

INTRODUCTION

Traditional Indian cuisines have varieties of recipes in one single meal, such as dal, rice, roti, *sabji* i.e. cooked vegetables, different kind of chutneys etc. Many ingredients are used to prepare each dish.

Acharya Caraka has categorized these ingredients in twelve *Ahara Vargas* and gave scientific description of qualities and actions of those ingredients.

¹Cereals, pulses, vegetables, water etc. are described under the title of *shookadhaanya*, *shimbidhaanya* etc.

Likewise, vegetables are described under *Shaaka var-ga* i.e. the fourth *varga*. Some vegetables which should be consumed as raw form are separately mentioned under title of *Haritvarga*². Such as *Aadraka* (ginger), *Grunjanaka* (carrot), *Palandu* (Onion), *Lashuna* (garlika). In *Bhavaprakasha*

nighantu, *Shaaka varga* is mentioned the ninth one, among twenty-three (drug groups) *Vargas*³ and it further subdivided into six categories based on their parts used⁴. Such as:

Table 1: Types of *Shaaka Dravya* (Vegetables)

No.	Types of <i>Shaaka</i>	Example
1	<i>Patra shaaka</i> (leafy vegetables)	<i>Palakya</i> (<i>Spinacia oleracea</i> Linn.) <i>Changeri</i> (<i>Oxalis corniculata</i> Linn.), etc.
2	<i>Pushpa shaaka</i> (flowering vegetables)	<i>Shigru</i> (<i>Moringa pteygosperma</i> Gaer.) <i>Pushpa</i> , <i>Shalmali</i> (<i>Bombax malabaricum</i> Dc) <i>Pushpa</i> etc.
3	<i>Phala shaaka</i> (Fruit form of vegetables)	<i>Karvellak</i> (<i>Momordica charantia</i> Linn), <i>Bimbi</i> (<i>Cocciniaindica</i> W & A), <i>Patol</i> (<i>Trichosanthes dioica</i> Roxb) <i>Phala</i> etc
4	<i>Naala shaaka</i> (Hollow vegetables)	<i>Kamal naal</i> (<i>Nelumbium speciosum</i> Willd)
5	<i>Kanda shaaka</i> (tuber form of vegetables)	<i>Suran</i> (<i>Amorphophallus campanulatus</i> Blume.), <i>Aaaruka</i> (<i>Dioscoreasp</i>), <i>Mulakakand</i> (<i>Raphanus sativus</i> Linn.) etc.
6	<i>Samswedaja shaaka</i> (grows with the help of moisture in bhoomi or wood)	Mushroom (<i>Agaricus campestris</i> Linn)

Vegetables are rich sources of many nutrients, including dietary fiber, potassium, vitamin A, vitamin C, vitamin K, copper, magnesium, iron, manganese, etc. According to the Dietary Guidelines for Americans 2015-2020⁵, variety of vegetables should be included in a meal from all the five vegetable subgroups-

1. Dark green (Spinach, Broccoli, Leafy salad greens),
2. Red and orange (Tomatoes, Carrots, Tomato juice, Sweet potatoes),
3. Legumes (beans and peas),
4. Starchy (Potatoes, Corn, Green Peas) and
5. Other (Onions, Cucumbers, Cabbage, Mushrooms etc).

These vegetables may be included in cooked or raw forms as fresh, frozen, canned, and dried or in juice forms. In Dietary guidelines for Indians, it is mentioned to eat plenty of vegetables to ensure a balanced diet.⁶

In contrast to this, many *Ayurveda* texts, Like *Astanga hridaya*⁷, *Bhavaprakasha nighantu*⁸describes the harmful effects of current and major use of vegetables in meal with the scientific explanation.

Aacharya Caraka has mentioned *Ashta-ahara-vidhi-vishesh-ayatanani* ⁹(eight points) as the guidelines for proper preparation and intake of any food item. These factors decide whether any specific food article will be wholesome or not to the consumer in certain circumstances. So, they are very important in the utilization of food articles and planning a diet as per *Ayurveda*. An effort has been done here to frame the guidelines for proper intake of *Shaaka varga*.

Aim- This Conceptual study aims to frame the guidelines for proper intake of vegetables. Special emphasis is given on their proper cooking methods.

Materials and Methods- Text references of *Shaaka-varga* from *Caraka Samhita*, *Sushruta Samhita*, *As-tangaSangraha*, *AstangaHridaya*, *Bhavaprakasha nighantu*, *Kshemakutuhala*, *Brihat nighantu ratnakara* and other online-offline research papers were collected and critically analyzed with a view of their application. Detail discussion has been done here to frame the guidelines for proper use of vegetables.

Guidelines for Proper Consumption of Shaaka Varga- *Ashta-ahara-vidhi-vishesh-ayatanani* is termed as eight factors which determine wholesome and unwholesome effects of various types of food. They are mentioned below. Each of them is explained in context to *Shaaka varga*. These eight factors are-

1. *Prakriti* (Inherent properties),
2. *Karana* (Processing methods),
3. *Samyoga* (Combination),
4. *Rashi* (Quantity),
5. *Desha* (Habitat),
6. *Kala* (Time),
7. *Upayoga samstha* (Dietetic rules) and
8. *Upayoktaa* (Consumer).

1. Prakriti (Inherent properties) - It denotes the constitutional properties inheriting in a food article. *Acharya caraka* has mentioned that all the *Shaakadravyas* are-*Guru* (heavy for digestion), *Ruksh* (non-unctuous), *Madhura* (sweet), *Shita virya* (cold in potency), *Vishtambhi* (causes disturbance in digestion and produce flatulence) by nature.¹⁰ *Patra* (Leaf), *Pushpa* (Flower) etc. kind of *Shaaka* is heavy for digestion from their ascending order.¹¹

2. Karana (Processing methods) - It is the methods of transformation to improve or change constitutional inherent qualities of vegetables. These include *Toya* (Dilution), *Agnisannikarsa* (by means of fire or heat), *Saucha* (purification), *Manthana* (churning), *Desha* (storing), *Kala* (maturing), *Vasana* (flavouring), *Bhavana* (Impregnation) and *Kalaprakarsh* (Preservation) *Bhajana* (Container) etc. kind of processes done in ancient era. Among these, *Toya Samskara* and *Agni Sannikarsa* are mainly focused here.

a) *Toya Samskara*- it is the basic procedure of cleaning which is applicable for all *shaaka dravyas* (vegetables) to make them fit for consumption. *Aacharya Caraka* has mentioned to avoid the *shaaka dravya* which is infected by insects, wind and sunlight.¹²

b) *Agni Sannikarsa*-It indicates the cooking methods of vegetables which include different types of cooking methods like boiling, sautéing; steaming etc. This is mentioned below under the title of cooking methods.

3. Samyoga (Combination) - *Samyoga* is the union of two or more food articles. Combination of any food

article gives rise to properties different from their natural inherent one. For e.g. milk and vegetable shouldn't consume at a time.¹³

4. Rashi (Quantity)-*Aacharya Caraka* mentioned the two different terms viz. *Sarvagraha* and *Parigraha*. *Sarvagraha* indicates total measurement of the entire meal as a whole and *Parigraha* indicates detailed measurement of each food article of diet separately which determines the results of their administration in proper and improper dosage.¹⁴ *Aacharya Caraka* mentioned that the heavy food article like vegetables should be taken at one third or half of the stomach capacity in maximum.¹⁵

5. Desha (Habitat) - Habitat is geographic region. *Acharya Bhavaprakasha* mentioned that *Adeshajama* (growth of vegetables in inauspicious land) *shaaka dravya* should not be consumed. *Sanswedaja shaaka* grown in the land devoid of cow-dung, woods and trees, should be avoided.¹⁶It indicates variations in quality due to difference in environment such as soil and climate.

6. Kala (Time and Seasonal variation) - *Kala* here can be understood as the cause for *parinama-na*¹⁷(maturation). Aging of food (maturity) will alter its properties and changes *rasa* (taste), *virya* (potency) and *vipāka* (post-digestive effect) of the food. *Aacharya Bhavaprakasha* mentioned that *Anaarattavama* (Unseasonable) and *Atijirna* (over ripened) *shaakadravya* should be avoided¹⁸.

7. Upyogamsstha (Dietetic rules) - *Aacharya Caraka* mentioned rules of proper intake of meal to gain wholesome effects of food by its proper digestion and metabolism. Though these are common rules for all kind of meal but some of them must be specially followed while taking vegetables. It should be consumed in its warm condition. Vegetables should always consume after the digestion of the previous meal¹⁹. *Aacharya Bhavaprakasha* mentioned proper sequence for taking meal. He says that *kathina dravyas* (solid substances) like *Shaaka* should be consumed first with fatty substances like *Ghrita* (ghee).²⁰

8. Upayokta (Consumer) - The last special consideration is the person himself who takes the diet. Habituation depends upon him.²¹

Proper Cooking Methods of Vegetables (Shaaka Dravya) - Aacharya Caraka mentioned general cooking method for all *Shaaka dravyas*.²²This is mentioned below.

1. **Swinnam** - Means to boil. Generally, vegetables are boiled in water.

Aacharya kshemkutihala mentioned different types of liquid media to boil vegetables. *Shaaka dravyas* which are *Kathina* (hard), and having *kashay* (Astringent), *katu* (Pungent) or *tikta* (Bitter) taste should be first boiled in water and then in buttermilk. **Vartaka** (*Solanum melongena* Linn.) should be boiled in *kanji*. **Karvellaka** (*Momordica charantia* Linn.), **Vastuka** (*Chenopodium album* Linn.), and **Mulaka** (*Raphanus sativus* Linn.) *Shaaka* is boiled in butter milk.²³

2. **Nishpiditarasam** - refers that drained of juices from vegetables. When the residual water after boiling is not filtered out, vegetables become unwholesome for use.²⁴

3. **Snehaadhyama**- refers that vegetables should be cooked with *Sneha dravyas* (fatty substances) like *tail* (oil), *Ghrita* etc.

Shaaka dravyas (*Vegetables*) are *guru*, *ruksh* and *visthmbhi* by nature. When they are used as raw form, without adding any substances they aggravate *vata dosha*. While adding *Sneha dravyas* like *Tail* (oil), It alleviates the *vata dosha* due to its unctuous properties.

Aacharya Bhavprakasha also mentioned general cooking procedure under the title of *Kritannavarga*. He says that while preparing *Shaaka*, it should be cut into small pieces and one should add *Hingu* (*Ferula narthex* B), *Jirak* (*Cuminum cyminum* L), *lavan* (Saline substance) and other *amla* (Sour substance) *dravyas*. *Sneha dravya* (oil, ghee) should also be added in proper quantity.²⁵

DISCUSSION

Shaaka Dravya (Vegetable) is the part of regular diet in entire country but not as the principal food. It is used with rice or chapatti as secondary food article. The whole *Shaaka varga* is described with this view as *Vyanjana* i.e. food articles are used to increase the taste. There is an another *varga* described by *Aacharya*

Caraka termed as *Harita varga*. Vegetables are mentioned in this *varga* can consume as a raw form. Balance diet should contain members from whole *ahaar vargas*. Hence total restriction of one group or excessive consumption of one group should not be done.

Cooking improves the digestibility of vegetables. Fleshy vegetables get softened on cooking and become easily chewable. Proper methods of cooking render vegetables palatable by improving the appearance, taste, flavor and texture, thereby enhancing acceptability. In addition, they help in destroying disease causing organisms and eliminating natural inhibitors of digestion.²⁶

Eight guidelines developed for proper consumption of vegetables. *Ayurveda* gives more importance to digestion in comparison to nutritive value of food.²⁷ Only the properly digested food can provide proper nutrition to the body. These guidelines are framed to ensure the proper digestion of vegetables by which consumer gain the benefits of them. They do not only deal with the detailed nutritional aspects of vegetables, but also consider food intake and manner of eating, *agni-bala* (digestive capacity), the process of cooking, time, habitat and settings, etc. It is mentioned that the food, which is having favored qualities like color, smell, taste, touch and consumed according to proper regimen, is said to be *Prana* (life) itself of all living beings²⁸.

Prakriti- Due to its inherent properties like *guru*, *ruksh* and *visthmbhi*, vegetables should be consumed in restricted manner. *Aacharya Caraka* mentioned that, one should not regularly take heavy articles such as, *shuska shaaka* (dry vegetables), *shalooka* (lotus rhizomes) and *bisa* (lotus stalk).²⁹ Apart from that, *Aacharya Bhavaprakasha* mentioned that *shuska dravyas* cause *shtrorodha*³⁰(congestion) and it lead indigestion.

Karana: It indicates Proper Cooking Methods of *Shaaka dravyas* (vegetables), which includes *Toya Samskara* and *Agni Sannikarsa*. In context to *Toya Samskara*, Pesticides used during cultivation of crops, can remain as residues in foodstuffs, especially in vegetables. It can be minimized by washing the vege-

tables thoroughly in running water or by peeling.³¹ Hence Vegetables should be washed thoroughly before cutting.

Agni Sannikarsa- There are many methods of cooking like boiling, steaming, pressure cooking, frying, roasting and baking. Boiling is most common method of cooking. Vegetables should be cooked on low heat using just adequate water in a covered vessel to preserve flavor and nutrients and to reduce cooking time. Frying involves cooking vegetables in oil/ghee at high temperature. Shallow frying involves use of much smaller amounts of oils than deep frying. Among them pressure and steam cooking are better than deep frying and roasting.³²

While preparing *Shaaka dravyas*, *Sneha dravyas* (oil, ghee) should be added in proper quantity. These *Sneha dravyas* made food unctuous, Which is delicious in taste, after intake, it provokes the subdued power of digestion; it gets digested quickly; it helps in the downward movement of *Vata* (wind), it increases the plumpness of the body, strengthens the sense faculties, promotes strength and brings out the brightness of complexion.

Table 2: Proper Cooking Methods of *Shaaka Dravyas* (Vegetables)

1.	Swinnam - Means to boil vegetables with suitable liquid media like water, butter milk etc.
2.	Nishpiditarasam -After boiling, drained of juices from vegetables.
3.	Snehaadhyama - When <i>the</i> residual water after boiling is filtered out, vegetables should be cooked with <i>Sneha dravyas</i> (fatty substances).

Samyoga - *Hingu* (Ferula narthex B), *Jirak* (Cuminum cyminum L), *lavan* (Saline substance) and other *amla* (Sour substance) *dravyas* have property like *Dipana* (promoter of digestion), *Pachana* (carminative), *Rochana* (palatable), *Snigdha* (unctuous), *Ushna* (hot in potency), and *Vaataanulomaka* (alleviator of *vata*). This *dravyas* should be added in limited quantity to enhance their potency and increase the digestion capacity of the consumer. According to modern concept they believe that Vegetables should be consumed in a nutrient dense form, with limited additions such as salt, butter, or creamy sauces.

Rashi- the WHO recommends a minimum of 400 g of vegetables per day. According to USDA (united states department of agriculture) (2011) one person should consume, per day, one cup of raw or cooked vegetables or two cups of raw leafy greens (one cup is equivalent to=237 g). According to *Aacharya Caraka Ahara matra* depends upon the *Agni-bala* (Digestive capacity of the fire).³³ *Ayurveda* never gives the fix quantity of any food article including vegetables. The amount of food which, without disturbing the equilibrium of the body, gets digested as well as metabolized in proper time is to be regarded as the proper quantity of individual.³⁴

Desha - Habitat of vegetables is very important. Food articles belonging to person's own *Desha* (terrain) are more wholesome to him. He will be more accustomed to those food articles.

Kala - Seasonal and fresh Vegetables should be consumed. According to *Aacharya Caraka* Vegetables infested with insects, exposed to wind, the sun for long, dried, up, old and unseasonal are unwholesome³⁵.

Upyogasamstha (Dietetic rules) and Upayokta (Consumer) - *Upayokta* is the user who takes food and responsible for the wholesomeness by the habitual intake of vegetables. Vegetables are an enjoyable, nutritious food commodity. Beside this, there are few potential toxic effects. Potatoes, especially green ones, contain solanine which is a neurotoxin, and this is harmful if excessive amounts are eaten. Sweet potatoes if infected with a certain fungus may contain furanoterpenes that cause lung disorders.³⁶ *Aacharya Bhavprakash* mentioned the harmful effects of vegetables and describes that all *Shaaka dravyas* are infected by diseases and consumption of these *Shaaka dravyas* leads to destroy the body.³⁷

Table 3: Guidelines for Proper Consumption of *Shaaka Varga* (Vegetables)

1.	Prakriti	Vegetables have inherent properties like <i>guru</i> , <i>ruksh</i> and <i>visthmbhi</i> . It should not use as raw form.
2.	Karana	Proper Cooking Methods- are Boiling, drained of the juice, and added with fatty substances. It should be

		followed.
3.	Samyoga	Add Substances which is carminative, unctuous and alleviator of <i>vata dosha</i> .
4.	Rashi	Vegetables should be taken at one third or half of the stomach capacity in maximum.
5.	Desha	Vegetables which are belonging to person's own <i>Desha</i> (terrain) should be consumed.
6.	Kala	Seasonal and fresh Vegetables should be consumed.
7.	Upyogamstha	After the digestion of previous meal, warm and unctuous vegetables should be consumed.
8.	Upayokta	According to the wholesome and unwholesome effects of vegetables, It should be consumed wisely by consumer.

CONCLUSION

Shaaka is described as *vyanjana* i.e. just to increase the taste. *Vagbhatta* restricted the meal having abundant use of vegetables at a time. *Ashta-ahara-vidhi-visesh-ayatanani* is thought in context of vegetables to ensure its benefits and framed guidelines of consumption. The Proper cooking methods of vegetables are essentially containing three steps boiling, drained of the juice, and added with fatty substances. Excessive consumption of *Shaaka dravyas* cause harmful effects on Bone, Eyes, Complexion, *Rakta and Shukra*.

Suggestions for further study-

1. Evaluation of cooking methods like microwave etc. on Vegetables.
2. To evaluate effects of various cooking methods on Vegetables.

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REFERENCES

1. Caraka. *Caraka Samhita, sutrasthan, Annapanvidhi Adhyaya* 27/6-7 edited by Jadavaji Trikamji Acharya, 7th ed.: Chaukhambha Sanskrit Sansthan, Varanasi, 2016;153.

2. Ibidem *Caraka Samhita*(1), *sutra sthan, Annapanvidhi Adhyaya* 27/6;153
3. Bhavamishra, *Bhavaprakash Nighantu*, First part, *Shaakavarga*, by Shri Brahmashankara Mishra and Shri Rupalalji vaishya, 11th edition, Chaukhambha Sanskrit Sansthan, Varanasi, 2010;663.
4. Bhavamishra, *Bhavaprakash Nighantu*, First part, *Shaakavarga* 9/1 by Shri Brahmashankara Mishra and Shri Rupalalji vaishya, 11th edition, Chaukhambha Sanskrit Sansthan, Varanasi, 2010;663
5. Sylvia M. Burwell, Thomas J. Vilsack, Dietary Guidelines for America 2015-2020, chapter 1/8th ed. USDA;18.
6. Dr. Kamala Krishnaswamy, Dietary Guidelines for Indians A manual, 2nd ed. National institute of Nutrition, Hyderabad, 2010;10
7. Vagbhatta, *Ashtangahridaya, Matrashitiya Adhyaya* 8/39 by Kariraj Atridev Gupta, 10th ed, Chaukhambha Sanskrit Sansthan, Varanasi, 2017;102.
8. Bhavamishra, *Bhavaprakash Nighantu*, First part, *Shaakavarga* 9/4 by Shri Brahmashankara Mishra and Shri Rupalalji vaishya, 11th edition, Chaukhambha Sanskrit Sansthan, Varanasi, 2010;663.
9. Caraka. *Caraka Samhita, vimanasthan, Rasavimana Adhyaya* 1/21 edited by Jadavaji Trikamji Acharya, 7th ed, Chaukhambha Sanskrit Sansthan, Varanasi, 2016;235.
10. Caraka. *Caraka Samhita, sutra sthan, Annapanvidhi Adhyaya* 27/103 edited by Jadavaji Trikamji Acharya, 7th ed. Chaukhambha Sanskrit Sansthan, Varanasi, 2016;159.
11. Bhavamishra, *Bhavaprakash Nighantu*, First part, *Shaakavarga* 9/ by Shri Brahmashankara Mishra and Shri Rupalalji vaishya, Chaukhambha Sanskrit Sansthan, Varanasi 2010;663.
12. Caraka. *Caraka Samhita, sutra sthan, Annapanvidhi Adhyaya* 27/316 edited by Jadavaji Trikamji Acharya, 7th ed. Chaukhambha Sanskrit Sansthan, Varanasi, 2016;171.
13. Caraka. *Caraka Samhita, sutra sthan, Aatreyabhadrakapiya Adhyaya* 26/84 edited by Jadavaji Trikamji Acharya, 7th ed. Chaukhambha Sanskrit Sansthan, Varanasi, 2016;150.
14. Ibidem *Caraka Samhita* (1), *vimana sthan, Rasa vimana Adhyaya* 1/21(4);235.
15. Ibidem *Caraka Samhita* (1), *sutra sthan, Matrashitiya Adhyaya* 5/7; 37.
16. Ibidem *Bhavaprakash Nighantu*(3) First part, *Shaakavarga* 9/119;703

17. Ibidem *Caraka Samhita*(1), *sutra sthan*,*TishtreshniyaAdhyaya*11/42;76.
18. Ibidem *Bhavaprakash Nighantu*(3) First part, *Shaakavarga* 9/117;702.
19. Ibidem *Caraka Samhita* (1), *vimana sthan*,*Rasa vimana Adhyaya*1/24;236.
20. Ibidem *Bhavaprakash Nighantu*(3) First part, *Dinchariyadiprakarana*,5/137;128.
21. Ibidem *Caraka Samhita*(1), *vimana sthan*,*Rasa vimana Adhyaya*1/24;236.
22. Ibidem *Caraka Samhita*(1), *sutra sthan*,*AnnapanvidhiAdhyaya*27/104;159
23. Shri Kshemsharma, *Kshemakutuhalama, Astmotsava* 8/11 edited by Dr Indradevtripathi 3rd edition, Shri Danvantari Arogya Niketan,1997;110.
24. Ibidem *Caraka Samhita*(1), *sutra sthan*, *AnnapanvidhiAdhyaya*27/316;171
25. Ibidem *Bhavaprakash Nighantu*(3)*Kritannavarga*11/106;721.
26. Dr. Kamala Krishnaswamy, Dietary Guidelines for Indians A manual, 2nd ed. National institute of Nutrition, Hyderabad,2010;69.
27. Ibidem *Caraka Samhita*(1), *sutra sthan*, *Matrashitiya Adhyaya*5/4;36
28. Ibidem *Caraka Samhita*(1), *sutra sthan*, *AnnapanvidhiAdhyaya*27/3;152
29. Ibidem *Caraka Samhita*(1), *sutra sthan*, *MatrashitiyaAdhyaya*5/10;38
30. Ibidem *Bhavaprakash Nighantu*(3) First part,*Dinchariyadiprakarana*,5/ 146;126.
31. Dr. Kamala Krishnaswamy, Dietary Guidelines for Indians A manual, 2nd ed. National institute of Nutrition, Hyderabad,2010;66.
32. Dr. Kamala Krishnaswamy, Dietary Guidelines for Indians A manual, 2nd ed. National institute of Nutrition, Hyderabad,2010;70
33. Ibidem *Caraka Samhita*(1), *sutra sthan*, *Matrashitiya Adhyaya*5/3;36.
34. Ibidem *Caraka Samhita*(1), *sutra sthan*, *Matrashitiya Adhyaya*5/4;36
35. Ibidem *Caraka Samhita*(1), *sutra sthan*, *AnnapanvidhiAdhyaya*27/316;171.
36. Jim Mann, A. Stewart Truswell, Essentials of Human Nutrition, Part 4/2nd ed, Oxford University Press 2011;394.
37. Ibidem *Bhavaprakash Nighantu*(3) First part, *Shaakavarga* 9/4;702

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