

Conceptual study of efficacy of Ruksha Gunatmaka Dhanya (grains) from Dhanyavarga's across different classical texts in Santarpanjanya Vikara – A Review article

Dr. Pratiksha Rajendra Tayade¹, Dr. Rajesh V. Sawai², Dr. Snehal Alde³, Dr. Rahul Kankale⁴

¹Post Graduate Scholar, Department of PG Studies in Ayurved Samhita and Siddhant, Government Ayurved College, Nanded, Maharashtra

²Professor and HOD, Department of Sanskrit Samhita and Siddhant, Government Ayurved College, Nanded, Maharashtra, India

³Department of Sanskrit Samhita and Siddhant, Government Ayurved College, Nanded, Maharashtra, India

⁴Post Graduate Scholar, Department of PG Studies in Ayurved Samhita and Siddhant, Government Ayurved College, Nanded, Maharashtra, India

Abstract—What we consume has huge impact on our body constitution. Lifestyle disorders like diabetes mellitus, obesity, skin diseases have been increasing rapidly in recent times. These diseases occur due to sedentary lifestyles, overeating, lack of physical exercise. In Ayurveda such diseases are included under the title 'Sitaramayya Vikara'. For such diseases one must focus on therapeutic and preventive aspect of the disease. Recommended diet for these diseases includes use of different Dhanya (grains) along with other treatment of Panchakarma, physical exercise, etc. Ayurveda has described various Dhanyavarga in all Samhitas including Charak Samhita, Sushrut Samhita, Ashtang Hridaya, Ashtang Sangrah, Bhavprakasha Nighantu, etc. describing various types of Dhanya's (grains) and its properties, utility according to various types of diseases. Acharya Charak has mentioned Shukadhanyavarga, Shamidhanyavarga, in Annapanavidhi Adhyaya of Charak Samhita Sutrasthana. Acharya Sushrut has described Dhanya's in Annapanavidhi Adhyaya of Sutrasthana. Ashtangasangrahakara and Ashtangahridayakara has mentioned Shukadhanyavarga, Shamidhanyavarga in respective Annaswaroopa Vigyaniya Adhyaya of Sutrasthana. Bhavprakasha Nighantu explained Trinadhanyavarga. Among all these Dhanyavarga's Muga, Rajamasha, Nishpava, Kordusha, Shyamaka, Kodrava, Neevara, Yava, Venuyava, etc are useful in Santarpanjanya Vyadhi. This article will give insights into properties of

grains, health benefits, clinical efficacy in lifestyle disorders and helps for proper understanding and correct utilization for improved effect on health of mankind.

Index Terms—Ayurveda, Dhanyavarga, Dhanya, Ruksha Gunatmaka, lifestyle disorders, Santarpanjanya Vikara, etc

I. INTRODUCTION

Increased percentage of Santarpanottha Vikara like obesity, diabetes mellitus, skin diseases etc are suggestive of need of incorporating healthy lifestyle among the people living sedentary lifestyle.

List of Santarpanjanya Vikara includes¹ –

प्रमेहपिडकाकोठकण्डूपाण्ड्वामयज्वराः ॥५॥

कुष्ठान्यामप्रदोषाश्च मूत्रकृच्छ्रमरोचकः ।

तन्द्रा क्लैब्यमतिस्थौल्यमालस्यं गुल्मात्रता ॥६॥

इन्द्रियस्रोतसां लेपो बुद्धेर्मोहः प्रमीलकः । शोफाश्चेवंविधाश्चान्ये शीघ्रमप्रतिकुर्वतः ॥७॥

च. सू. २३

According to Ayurveda, the causes of such diseases are eating excessive oily, heavy, sweet, newly formed grains, milk and milk products, carbohydrate rich food, etc. Also lack of physical activities, excessive

sleeping at day timing, not following day – night and seasonal regimen are prone to have such diseases.

Aacharya Charak has mentioned the causes of Santarpanjanya Vikara. ² They are as follows:

सन्तर्पयति यः स्निग्धैर्मधुरैरुपिच्छिलैः।नवान्नैर्नवमद्यैश्च मांसैश्चानूपवारिजैः ॥३॥

गोरसेगौडिकेद्यात्रैः पैष्टिकैश्चातिमात्रशः । चेष्टाद्वेषी दिवास्वप्नशय्यासनसुखे रतः ॥४॥

रोगास्तस्योपजायन्ते सन्तर्पणनिमित्तजाः । च. सू. २३/३,४

For sustaining healthy life Aahar is important factor. One must emphasises on mindful eating and developing healthy eating habits accordingly diseases since it has therapeutic as well as supplementary potential. The general Samprapti (pathophysiology) of Santarpanottha Vikara occurs by respective Hetusevana and Kapha – Meda Kleda Dushti priorly. Treatment of these diseases includes Rukshanna Sevana which helps in Kapha Meda vitiation.

शस्तमुल्लेखनं तत्र विरेको रक्तमोक्षणम् । व्यायामश्चोपवासश्च धूमाश्च स्वेदना नि च ॥८॥

सक्षौद्रश्चाभयाप्राशः प्रायो रूक्षान्नसेवनम् । चूर्णप्रदेहा ये चोक्ताः कण्डूकोठविनाशनाः

॥९॥ च. सू. २३

Along with Shodhana Karma, exercise, fasting, fomentation, external application of Lepa's , Rukshanna Sevana is used as therapeutic tool in treating Santarpanjanya Vikara. ³

The present article will help to decode that which Dhanya (grain) should be used in Santarpanottha Vikara, their properties and how they are effective in these diseases.

Ayurveda has described Dhanyavarga's in various Samhita.

In Charak Samhita, Sutrasthana Adhyaya 27, Annapanavidhi Adhyaya, Aacharya mentioned 12 Aahar varga's. (categories). Among them, details about Dhanya (grains) has explained in Shukadhanyavarga and Shamidhanyavarga. ⁴ Aacharya Sushrut has described Shalivarga and Kudhanya varga in Annapanavidhi Adhyaya of Sutrasthana of Sushrut Samhita. ⁵ 'Ku' means bad, or with less value. 'Ku' has another meaning as its plant-the grass is used to prepare mats, for that dry grass is used which is called as 'kusa', hence the name is 'kudhanya'. ⁶ These grains can be grown in scanty water, also in high temperature, requires less care, hence they are considered as of less value. Aacharya Vagbhat has explained Shuka and Shimbi Dhanyavarga in Annaswaroopa Vigyaniya Adhyay of Sutrasthana. ⁷ Likewise Ku Dhanya by Aacharya Sushrut, the great commentator of Vagbhat – Hemadri has explained Tucchadhanya -

Trunadhanya. ⁸ 'Tuccha' means-not important. 'Tucchadhanya' has one meaning as 'chaff' means fibers. The grain which contains lots of fibers, less useful to increase weight, hence considered as 'Tucchadhanya'. ⁶ In Sanskrit 'Trun' is synonym for grass, and 'Dhanya' means grains. The grains which are produced from grass like plant is called as 'Trunadhanya'. ⁶ Ashtang Sangrahaakara has mentioned the same – Shuka and Shimbi Dhanyavarga categories in Adhyay 7 of Sutrasthana. ⁹ Various types of grains are cited under different categories like Shukadhanya, Shalidhanya, Shamidhanya, Shimbidhanya, Vaidaladhanya, Trunadhanya, Kudhanya, Kshudradhanya in different classical texts of Samhitas and Nighantu.

All these Dhanyavarga's includes various types of grains. The article will focus on study of grains which are useful to treat Santarpanjanya Vikara like Prameha (Diabetes), Sthaulya (obesity), Medoroga, etc. by Ruksha, Dhatushoshak, Lekhana qualities of these grains. Some Dhanya's are described as wholesome diet but here the study will made to treat lifestyle diseases of Kapha and Meda vitiation.

II. MATERIALS AND METHODS

Ayurvedic classical texts such as Samhita (Charaka Samhita, Sushruta Samhita, Ashtanga Sangraha, Astanga Hridaya), various Nighantu's, Dravyaguna literature, journals, various published articles and books were comprehensively reviewed for collecting significant data about Ruksha Gunatmaka Dhanya.

III. DISCUSSION

In Charak Samhita Sutrasthana 23, list of Santarpanjanya Vikara is mentioned. ¹ Along with sedentary lifestyle and unhealthy eating habits like having excessive sweet, oily, heavy food items, junk food, newly formed grains, drinks with no or minimal physical activities, sleeping at day timing etc are main causative factors for occurrence of such Santarpanjanya Vikara. ² Repeated consumption of these food items and sedentary, lethargic lifestyle causes vitiation of Kapha, and furthermore Meda – Kleda Dushti which ultimately results in various diseases like obesity, hyperlipidemia, diabetes mellitus, cardio vascular diseases, skin diseases and

many more which are cited under the term Santarpanjanya Vikara in Ayurveda.

Treatment of these diseases includes use of Panchakarma procedures like Vamana, Virechana, Raktamokshana, Swedana. Physical exercise (Vyayam), Fasting (Upwas), Dhoompana, Rukshanna Sevan, external application of Churna and Pradeha. ³ The present article emphasizes on treating the Santarpanjanya Vikara by preventive aspect through lifestyle modification of daily habits of consumption.

रोगश्च आहार संभवः¹⁰ is the reference from Charak Samhita Sutrasthana 28/45 Which means diseases can occurs through the type of food one's eating. Also Aahar is called as the Mahabheshaja (Shrestha Aushadha) by Acharya Kashyapa. ¹¹ This concludes that Aahar is the key component in occurrence as well as treatment of diseases. Eating unhealthy, junk food, irrespective of Prakriti, Bal, Agni, Koshttha and not following the regulations related to Aahar as stated in Samhitas can lead to various diseases. While thoughtful eating can act as medicine in treatment of diseases. Since Aahar has given the utmost importance, the main component of Aahar is Dhanya (grains) consumed in daily life.

As Rukshanna Sevan is mentioned in Santarpanjanya Vyadhi Chikitsa, the study will focus on Ruksha Gunatmaka Dhanya across different types of Dhanya from Dhanyavarga.

Ruksha means पारुष्यमस्निग्धीभावः (कल्पद्रुम)¹²

पारुष्ये कठोरतायाम् निःस्नेहे च (वाचस्पत्यम्)¹²

अचिक्रणे (वाचस्पत्यम्)¹²

स्नेहशून्ये च. (वाचस्पत्यम्)¹²

रुक्ष कफहर मतम् (भावप्रकाश)¹²

Harsh, rough, not smooth or soft (Shabdasagar)¹²

Ruksha Guna does Rukshana (drying) Karma by absorption of Vikrut Kleda-Meda , vitiated Kapha in Santarpanjanya Vyadhi and hence can be used as therapeutic as well as preventive aid in these diseases. Below is the list of Ruksha Dhanya mentioned in different classical texts.

Table – Ruksha Dhanya mentioned in different Samhitas and Nighantu. ¹³⁻¹⁹

Charak ¹³	Sushrut ¹⁴	Ashtang Sangraha ¹⁵	Ashtang Hridaya ¹⁶	Bhavprakash Nighantu ¹⁷	Kaiyadev Nighantu ¹⁸	Madanpal
----------------------	-----------------------	--------------------------------	-------------------------------	------------------------------------	---------------------------------	----------

						Nighantu ¹⁹
Yava	Koradusha	Kangu	Yava	Yava	Yava	Yava
Vanshabeja	Shyamaka	Kodrava	Vanshabeja	Muga	Muga	Muga
Muga	Nivara	Jurvaha	Rajamasaha	Rajamasha	Rajamasha	Masoora
Rajmasaha	Shantanu	Garmuti		Nishpava	Makushtaha	Rajmasaha
Mataki	Varaka	Churnapadika		Vanamudga	Nishpava	Nishpava
Chanaka	Uddalaka	Shyamaka		Masoorara	Sateena	Sateena
Masoora	Priyangu	Toyahyama		Arahar (Aadhaki)	Harenu	Chanaka
Khandika	Madhulika	Hastihyama		Chana	Kalaya	Kulattha
Harenu	Nandimukhi	Shimbira		Kalaya	Chanaka	Kalaya
	Kurvinda	Shishira		Triputa	Masoora	Tuvara
	Gavadhuka	Darunivara		Kulatta	Tuvari	Kangu
	Sara	Varukubara		Tuvara	Kulattha	Shyamaka
	Varuka	Utkata		Kangu	Sitakanguka	Neevara
	Todarni	Madhulika		Cheenaka	Shyamaka	Varaka
	Mukundaka	Shantanu		Shyamaka	Kodrava	Uddalaka

	Chanaka	Sandi		Kodrava	Uddalaka	Nartaka
	Aranayamasha	Venuparni		Charuka	Nartaka	Varatika
	Yava	Prashantika		Vanshayava	Gavedhuka	Todaparni
	Atiyava	Gavedhuka		Gavedhuka	Devadhanya	Kodrava
		Andalauhitya		Neevara	Varuka	Madhulika
		Todaparni		Yavanala	Varatika	Nandimukhi
		Mukundaka			Udri	Venuyava
		Yava			Nadi	Priyangu
		Muga			Toyaparni	Koradusha
		Mangalya (Masorabheda)			Mukunda	Gavedhuka
		Vanamudga			Shimbi	Nala
		Mataki			Priyangu	Nali
		Rajamasha			Yavanalaka	Mukunda
		Masora			Gavedhuka	Vari
		Aadhaki			Sharabija	
		Chanka			Prashantika	
		Kulatta				
		Nishpava (Sema)				

Since there is no direct reference that these Dhanya's should be used or indicated in certain Santarpanjanya Vikara, द्रव्य गुणेन कुरुते कर्म: ²⁰is the base principle used for study in this article.

Though all these grains were mentioned in Samhitas in ancient times, many of them are not available or grown today. Hence common among all these are described below along with their Rasapanchaka and Karma (action).

Table – Rasapanchaka and Karma (action) of Dhanya. ^{13,19}

Name	Rasa (Taste)	Guna (Attribute)	Virya (Potency)	Vipaka (Action)	Karma (Action)
Yava	Kashaya, Madhura	Ruksha, Sheetal, Mrudu	Sheeta	Katu	Kapha, Pitta, Meda, Rakta Vikaranashak, Useful in Kasa, Shvasa, Pleeha, Urusthambha
Muga	Kashaya, Madhura	Ruksha, Laghu, Grahi	Sheeta	Katu	Kaphapittahar
Rajamasha	Kashaya	Ruksha, Guru			Vatakaraka, Ruchikaraka, Balakara
Mataki	Madhura, Kashaya	Laghu, Ruksha, Grahi	Ushna	Madhura	Kaphapittanashaka
Chanaka	Kashaya	Laghu, Ruksha, sheeta			Pitta, Rakta, Kapha Jwar Vikaranashak, vishtabhi, Vatakara
Masoor	Madhura, Kashaya	Ruksha, Laghu, Sheet	Ushna	Madhura	Kapha, Pitta, Rakta, Jwara nashaka, Varnya

Harenu / Kalaya / Sateena	Madhura	Ruks ha, Sheet a		Madhura	Vatakara
Aadhaki/ Tuvara	Kashaya, Madhura	Ruks ha, Sheet a, Laghu, Grahi			Pitta, Kapha, Rakta Vikarahara
Kulattha	Kashaya	Laghu, Ruks ha, Vidahi	Ushna	Katu	Shwas Kasa Kapha Anilanahara, Medohara, Pitta-Raktakruta
Nishpava	Madhura, Kashaya	Ruks ha, Guru, Ushna, Saraka	Ushna	Amla	Visha, Kapha, Shotha, Shukra Nashaka
Vansha beeja	Madhura, Kashaya	Ruks ha, Laghu, Grahi	Sheeta	Katu	Kaphapittan ashaka, Shotha, Kushtha, Rakta Vikarahara
Kangu/ Priyangu	Kashaya, Madhura	Ruks ha, Guru		Katu	Kledashoshana, Kaphanashaka, Rasa-Rakta Vardhaka, Bhagnasandhanakruta
Kodrava/ Vanakodrava/ Uddalaka/ Koradusha	Kashaya, Madhura	Sheeta, Ruks ha	Ushna		Pitta-Kaphanashaka, Grahi, Vishghna
Shyamaka	Kashaya	Ruks ha	Sheeta	Katu	Kaphapittah ruta, Vatala, Shoshana
Neevara		Sheeta, Ruks			Pittanashaka, Kapha vatakara

		ha, Grahi			
Gavedhuka	Katu, Madhura	Ruks ha	Ushna		Kaphanashaka, Karshyakruta
Varaka/ Yavana/ Devadhanya	Madhura, Kashaya	Ruks ha, Laghu, Sheet a	Sheeta		Rakta, Pitta, Kaphanashaka, Avrushya
Prashantika	Madhura, Kashaya	Ruks ha, Laghu	Sheeta		Rakta, Pitta, Kaphanashaka, Avrushya, Kledashoshaka
Nartaka	Kashaya, Madhura	Ruks ha, Laghu	Sheeta		Kapha-Pittanashaka
Varatika	Madhura, Kashaya	Ruks ha, Guru, Sheet a	Sheeta		Rakta, Pitta, Kapha, Vatahara
Sharabi ja	Madhura, Kashaya	Ruks ha, Sheet a, Laghu	Sheeta		Rakta, Pitta, Kaphanashaka, Avrushya

(Source – Charak Samhita, Sushrut Samhita, Ashtanga Sangraha, Astanga Hridaya, Bhavaprakasha Nighantu, Kaiyadev Nighantu, Madanpal Nighantu)

From the above-mentioned list, namely Kangu, Kodrava, Uddalaka, Koradusha, Shyamaka, Neevara, Gavedhuka, Varaka, Yavanala, Prashantika, Nartaka, Varatika, Sharabeeja are described in Kudhanya Varga (by Acharya Sushrut), Kshudradhanya Varga (by Bhavaprakasha), Trunadhanya (by Hemadri, Kaiyadevanighantu, Madanapanighantu). These grains from Ku/Kshudra/ Trunadhanya Varga are called as Millets by modern science.²¹ Kordush, Shyamak(barnyard millet), Hastishyamak (big barn yard millet), Neevar (rice grown without cultivation), Toyaparni, Gavedhuk (small wheat), Prashatika(redbeak), Ambh Shyamak(barn yard millet grown in water), Lohitanu (red small grains),

Priyangu(fox tail millet), Mukund (vkastrun), Zinti, Garmuti, Varuk(Charuk-Shanbeej), Varak (Shyambeej-black grains), Shibir (siddhak), Utkat, Jum(Jondhale- Jwari-sorghum), these millets are described by Acharya Charak. Acharya Sushruta describes Shantanu, Uddalak, Madhulika, Nandimukhi, Kuruvind,Sar, Todaparni and Venuyav-bamboo rice as additional varieties of millets. Ashtang Sangraha describes some extra millets named as, Gadi, Varunpadika, Shimbika, Shishir, Antnirgandi, and Venuparni.

According to modern science, millets have more fibre content, less calorie count and less nutritive value. Below table overviews the nutrition quotient of millets.

Table – Nutritive value of millets ²² per 100 gm.

Grain	English name	Carbohydrates	Protein	Fat	Fibre	Energy (Kcal)
Yavala	Sorghum/ great millet	67.7	09.9	1.73	10.2	334
Priyangu	Pearl millet	61.8	10.9	5.43	11.5	347
Kodrava	Kodo millet	66.2	08.9	2.55	06.4	331
Varaka	Proso/ Indian millet	70.4	12.5	1.1		341
Kangu	Foxtail millet	60.1	12.3	4.3		331
Gavedhuka	Adlay millet	65.5	10.1	3.89	7.7	346
Shyamaka	Barnyard millet	65.5	06.2	2.2		307
Neevara	Bengal wild rice/ rice grown without cultivation	78.2	07.9	0.52	02.8	356

In Ayurvedic literature millets are described as Laghu (light), Ruksha (dry), and possessing Kashaya (astringent) or Tikta (bitter) tastes, which contribute to their ability to pacify Kapha and Medas. These qualities make them particularly beneficial in the management of disorders like Prameha (diabetes), Medoroga (obesity), and other Kapha-dominant conditions.

IV. CONTRAINDICATIONS AND LIMITATION OF KSHUDRA DHANYA ²³

Despite many health benefits, it should never be consumed without assessing the Prakriti (body constitution), Agni (digestive strength), disease condition and current health status of the individual. It aggravates Vata when consumed for a prolonged period. Hence, contraindicated in Vataja Rogas (Diseases caused by Vata predominance). Thus, millets should be consumed with ghee, milk etc.

Acharya Charak has also mentioned to use Shimbi Dhanya with Sneha due to its Rukshanatmaka property. ²⁴

People suffering from Pittaja disorders or who possess a Pitta dominant constitution are advised to consume millets with candy sugar, milk, dates, ghee or with black raisins. This will avoid the aggravation of Pitta & will also enhance the benefits of millets. During the summer and autumn season or post-monsoon period, consumption of millets can be avoided due to the heat in the environment.

V. RESULT

Nowadays the incidence of lifestyle diseases like diabetes mellitus, hypertension, dyslipidaemia, obesity, cancer and cardiovascular diseases are continuously increasing day by day due to the disturbed pattern of lifestyle. These diseases have come under the Santarpanjanya Vyadhi (diseases due to over nourishment) as the result of Medovaha Srotodusti in Ayurveda. The Ruksha Guna does Shoshan (dries up excess moisture) and scraping of Dushta Meda. Dry nature prevents the Kleda (stagnation of water molecules), which is already been considered as a causative factor in Diabetes, Obesity and other inflammatory diseases, according to Ayurveda. Its Lekhana (scraping) & Kleda-shoshaka (drying) property, which scrapes the excessive fat

residue from the subcutaneous region & other tissues. It is effective in depleting the visceral fat of the body. Hence effective in the treatment of Medodushti (disorders of fat metabolism) and Santarpanjanya Vyadhi by reducing excess fat in obesity, dyslipidemia, type 2 diabetes and cardiovascular diseases by its Kledashoshaka and Medohara action. Caution must be taken that, a through Prakriti (body constitution), Agni (digestive fire) analysis, and assessment of disease condition of person should be done to prescribe these grains/ millets to anyone due to its unique nutritional and therapeutic properties.

Analysing the Ruksha Guna of these grains and its effect, it can be stated that thoughtful use of these grains may be effective in prevention and management of Santarpanjanya Vyadhi like Sthoulya (obesity), Medoroga (diseases due to excessive lipids), Prameha/ Madhumeha (diabetes mellitus), skin diseases, cardiovascular diseases etc., which are usually metabolic & lifestyle disorders.

To live healthy life and to reduce the incidence of lifestyle disorders, the above-mentioned grains are considered as a viable option and can be used as alternative therapy for the management of these diseases.

VI. CONCLUSION

The rising burden of non-communicable diseases across the globe is closely linked to sedentary lifestyles associated with industrialization and modernization. These conditions, often categorized as lifestyle disorders, pose a significant public health challenge. The present review emphasizes the role of Ruksha Gunatmaka Dhanya in the prevention and management of Santarpanjanya Vikara.

In view of the increasing prevalence of lifestyle disorders, these grains emerge as valuable dietary components owing to their nutritional and therapeutic attributes. Their utility is particularly noteworthy in Santarpanjanya Vikaras and Kapha-Pitta Doshaja conditions. However, the dietary inclusion of these grains should be individualized rather than generalized. Nevertheless, Ayurvedic dietary recommendations should be personalized, with due consideration given to the individual's Prakriti and Agni, ensuring their safe and effective incorporation into daily nutrition for promoting health and preventing disease. Incorporating these grains into

daily and seasonal regimens, addresses lifestyle related diseases and promotes as therapeutic foods that bridges Ayurvedic dietary principles with evidence-based nutrition of modern science for wellbeing and long-term health.

REFERENCES

- [1] Charaka Samhita, Sutra Sthana, Chapter 23, Verses 5-7, Chaukhambha Orientalia Prakashan, Reprint 2008.
- [2] Charaka Samhita, Sutra Sthana, Chapter 23, Verses 3-4, Chaukhambha Orientalia Prakashan, Reprint 2008.
- [3] Charaka Samhita, Sutra Sthana, Chapter 23, Verses 8-9, Chaukhambha Orientalia Prakashan, Reprint 2008.
- [4] Charaka Samhita, Sutra Sthana, Chapter 27, Verses 8-34, Chaukhambha Orientalia Prakashan, Reprint 2008.
- [5] Sushrut Samhita, Sutra Sthana, Chapter 46, Verses 4-51, Chaukhambha Orientalia Prakashan.
- [6] Millets: A review of its properties as per Ayurveda by Nileema Shisode, Annals of Geriatric Education and Medical Sciences. 11(1):3-10, 2024.
- [7] Ashtang Hridaya Samhita, Sutra Sthana, Chapter 6, Verses 1-25, Chaukhambha Orientalia Prakashan.
- [8] Ashtang Hridaya Samhita, Sutra Sthana, Chapter 6, Verse 11, Chaukhambha Orientalia Prakashan.
- [9] Ashtang Sangrah, Sutra Sthana, Chapter 7, Verses 3-36, Chaukhambha Orientalia Prakashan.
- [10] Charaka Samhita, Sutra Sthana, Chapter 28, Verses 45, Chaukhambha Orientalia Prakashan, Reprint 2008.
- [11] Kashyapa Samhita, Khilasthana, Chapter 4, Verse 6, Chaukhambha Orientalia Prakashan.
- [12] Reference from Shabdakalpadrum and Bhavaprakasha
- [13] Charaka Samhita, Sutra Sthana, Chapter 27, Verses 8-34, Chaukhambha Orientalia Prakashan.
- [14] Sushrut Samhita, Sutra Sthana, Chapter 46, Verses 4-51, Chaukhambha Orientalia Prakashan.
- [15] Ashtang Sangrah, Sutra Sthana, Chapter 7, . Verses 3-36, Chaukhambha Orientalia Prakashan.

- [16] Ashtang Hridaya Samhita, Sutra Sthana, Chapter 6, Verses 1-25 , Chaukhambha Orientalia Prakashan.
- [17] Bhavaprakasha Nighantu. By Prof. Brahmashankar Mishra, Dhanyavarga, Verses 27-88 Chaukhambha Bharati Academy, Varanasi; vol 1.
- [18] Kaiyadev Nighantu, by Aacharya Priyavata Sharma, Dhanyavarga, Verses 3-107, Chaukhambha Orientalia Prakashan.
- [19] Madanpal Nighantu, by Khemaraj Krishnadas Prakashana, Mumbai, Dhanyagunavarga 10, Verses 2-70
- [20] Charak Samhita, Sharir Sthana 6/10, Jalpaklpataru Teeka by Gangadhar Shastri, Chaukhambha Orientalia Prakashan.
- [21] A critical review of the history and practices of millets in India, Journal of Drug Research in Ayurvedic Sciences 8(Suppl 1):p S18-S25, November 2023. DOI: 10.4103/jdras.jdras_113_23
- [22] Jyoti. Millets (Kshudra Dhanya): Nurturing Health and Preventing Lifestyle Disorders. AYUSHDHARA, 2024;11(1):109-114.
- [23] Sidhi PrabheDesai, Sanjeev S Tonni, Keertan MS, Arpit Sah Ayurvedic Insight into Kshudra Dhanya: A Review on the Nutritional and Health Benefits of Millets. Journal of Ayurveda and Holistic Medicine (JAHM) 2026; 14(1):60-71.
- [24] Charaka Samhita, Sutra Sthana, Chapter 27, Verse 32, Chaukhambha Orientalia Prakashan, Reprint 2008.