



Review Article

SHUKA DHANYA VARGA (GROUP OF CEREALS): A PREVENTIVE AND CURATIVE PERSPECTIVE

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ABSTRACT

Nutritious diet (*Ahara*) or we can say balanced diet is the key to follow the first principle of *Ayurveda* or in order to maintain a healthy life. In *Ayurveda* Acharya Charak has mentioned regular intake of food articles belongs to different categories of food. Acharya Charak has classified *Ahara* (diet) in twelve categories. Among these, *Shukadhanya* is the first one. In modern literature, *Shukadhanya* has been classified in monocotyledons and energy giving food. Energy giving food mainly includes cereal groups like wheat, rice, maize (corn), oats, *Jowar*, *Ragi*, and *Bajra*. Ancient *Acharyas* has mentioned some *Shukadhanya dravyas* with their *gunas* (qualities) like *Shashthika*, *Vrihi* (variety of rice), *Yava*, wheat, which play an important role in prevention of diseases. These *Dravyas* are *Sheeta* (cold in potency), *Swadu* (sweet in taste), *Swadu Vipaka* (Sweet in digestion). They are said to be *Vatavardhak*, *Alpavarchasa*, *Brinhana*, *Shukrala* and *Mutral*. In modern literature, *Shukadhanya Varga* has been classified in cereal group. Cereals are enriched with niacin, iron, riboflavin, and thiamine, and most cereals have abundant fibre content, especially barley, oat, and wheat. Cereals also have soluble bran that aids in lowering blood cholesterol level and helps in preventing heart diseases. This article is an attempt to analyze the *Shukadhanya Varga* mentioned in *Ayurveda* on a scientific basis.

KEYWORDS: *Ayurveda*, *Ahara*, *Shukadhanya*, *Shashthika*, *Vrihi*, *Yava*.

INTRODUCTION

Ayurveda plays a very important role in prevention of disease, besides treatment of diseases which includes *Ahara* (diet), *Vihara* (lifestyle) and *Aachara* (behavioural pattern). Amongst them *Ahara* i.e. diet is the most important part. *Saarata* of *Dhatu* which is the reflection of body's immunity depends on the nature of diet taken. Therefore *Acharyas* have advised to take only those food items which are helpful to maintain the health. *Ayurveda* recommends that while diet is not capable of curing all the diseases, but majority of the diseases can be put under control only by doing adjustment in diet and maintain proper eating habits. In fact, *Ayurveda* is based on *Trayoupstambh* i.e., three pillars of *Ayurveda* which are the basis of human life or we can say healthy life.^[1] These are *Ahara* (diet), *Nidra* (proper sleep) and *Brahmacharya* (Abstinence from excessive sexual and mental activity).^[2] *Ahara* stands for balanced diet and is the first and foremost pillar of *Ayurveda*. Basically, *Ayurveda* works on two principles i.e. prevention or maintaining the health and the second one is treatment of disease.^[3] The first one is the dominant one which concludes that prevention is better than cure. Nutritious diet (*Ahara*) or we can say balanced diet is the key to

follow the first principle of *Ayurveda* or in order to maintain a healthy life. In *Ayurveda* Acharya Charak has mentioned regular intake of food articles belongs to different categories of food. These are *Shashthika*, *Shali* (variety of rice), *Yava* (barley), *Mudga* (Green gram), *Saindhava* (a type of salt), *Amalaka* (Indian gooseberry), *Jangala mamsa rasa* (meat of terrestrial animals), *Madhu* (honey), water, *Payah* (milk), *Sarpi* (ghee). In ancient literature of *Ayurveda*, Acharya Charak has classified *Ahara* (diet) in twelve categories. Among these, *Shukadhanya* is the first one.^[4] As the name suggests, corns with spikes are known as *Shukadhanya*.^[5] The name is derived from the words *Shukadhanya* (*Suka* means bristle and *Dhanya* means consisting of grain). Acharya Sushruta has not mentioned *Shukadhanya varga* by name. In *Sushruta Samhita dravyas* of *Shukadhanya varga* has been described in *Mudgadi*, *Shali* and *Kudhanya Varga*.^[6] In modern literature, *Shukadhanya* has been classified in monocotyledons and energy giving food. Energy giving food mainly includes cereal groups like wheat, rice, maize (corn), oats, *Jowar*, *Ragi*, and *Bajra*. Ancient *Acharyas* has mentioned some *Shukadhanya Dravyas* with their *Gunas* (qualities) like *Shashthika*, *Vrihi* (variety of rice), *Yava*, wheat, which play an

important role in prevention of diseases. These *Dravyas* are *Sheeta* (cold in potency), *Swadu* (sweet in taste), *Swadu Vipaka* (Sweet after digestion). They are said to be *Vatavardhak*, *Alpavarchasa*, *Brinhana*, *Shukrala* and *Mutral*.^[7]

Yava (Barley / *Hordeum Vulgare*)

Charak has mentioned *Yava* in *Shukadhanya Varga* while *Sushruta* in *Mudgadi Varga*. *Charak* has mentioned *Yava* in *Shramahara*, *Chardinigrahana* and *Swedopaga Mahakashaya*. In Ayurveda, pharmacodynamics of *Yava* (Barley) has been explained to be as *Ruksha* (dry), *Sheetavirya* (cold in potency), *Laghu* (light in digestion), *Madhura* (sweet) and *Kashaya* (Astringent) in taste, aggravates *Vata* and increases the amount of faeces. Also it increases the body strength and pacifies *Kaphaj* disorders.^[8] It is known to be *Stanayavardhaka*^[9]; *Medohara* (helps in reducing fat) when used with *Amalaki Churna*^[10]. *Yava* (Barley) is a carbohydrate rich food. According to National Health and Nutrition Examination Survey, Barley contains potassium, calcium and magnesium which are helpful to decrease blood pressure naturally. Also Barley helps in lowering the cholesterol in the blood as it is an excellent source of fibre and hence decreasing the risk of cardiac diseases. In the condition of *Vrana* and *Visarpa*, *Yava* (Barley) can be used with *Madhuka Churna* in application form.^[11] Inhaled *Dhuma* of *Yava churna* with *Ghrita* is said to be beneficial in *Shwasa Roga* (Asthma).^[12]

Godhuma (Wheat / *Triticum Vulgare*)

Acharya Charak has mentioned *Godhuma* (Wheat) in *Shukadhanya Varga* while *Sushruta* in *Mudgadi Varga*. *Godhuma* (Wheat) is *Snigdha* (unctuous), *Guru* (not easily digestible), *Sheeta Virya* (cold in potency) and *Madhura* (sweet in taste) and pacifies *Vata* and *Pitta Dosha*.^[13] *Godhuma* can be used with *Ghrit* and goat's milk in the condition of *Vatarakta* (Osteo arthritis).^[14] It can also be used with *Ghrit* in application form in *Asthibhagna* (bone fracture)^[15]. *Godhuma* with *Madhu* is beneficial in *Kaphaj Shool* (pain).^[16] Wheat flour contains gluten and gliadin as proteins which are commonly known as gluten. The strength of the wheat flour is based on the quality of gluten used.

Jowar (Great Millet / *Sorghum Vulgare*)

Jowar is *Madhura* and *Kashaya* in *Rasa*, *Laghu* (easily digestible), *Sheeta Virya* (cold in potency) and pacifies *Vata* and *Kapha Dosha*. *Jowar* contain essential nutrients like iron, Ca, potassium and phosphorous. It contains good amount of Thiamine and Riboflavin. Phytochemicals are also present in high amount in Millet that they have shown potential usefulness in reducing the obesity. *Jowar* is also said to be heart healthy.^[17]

Shalidhanya (Rice Paddy/ *Oryza Sativa*)

As said by *Bhavaprakash*, *Dhanya* matured in *Hemanta Ritu* is known as *Shalidhanya*. *Acharya Charak* has mentioned *Raktashali*, *Mahashali* and *Kalam* in *Shalidhanya varga*. Among them *Raktashali* is of best quality rather than *Mahashali* and *Kalam*. *Raktashali* is *Madhura* in *Rasa*, *Laghu* (easily digestible), *Sheet Virya* and pacifies all three *Doshas*.^[18] According to modern literature, rice has three varieties i.e., paddy rice, brown rice and white rice. Rice with inedible outer husk is said to be paddy rice. When husk gets separated from grain and removed by winnowing is said to be white rice. After husk is removed, the rice is milled to remove the bran (brown skin just below the husk), and germ or embryo.

Bajra (Pearl Millet / *Pennisetum glaucum*)

Bajra is *Madhura* in *Rasa*, *Ruksha*, *Ushna Virya* and pacifies *Vata* and *Kapha Dosha*^[19]. It has relatively low glycemic index and has been shown to produce lower blood glucose level than wheat and rice. Magnesium in millet helps in reducing the effect of heart attacks. *Bajra* also contains Niacin which helps in lowering the cholesterol level. Its consumption decreases triglycerides and C- reactive protein. The pearl millet bran is low in mineral matter. The germ fraction in Pearl Millet is about 16%. It is also rich in oil, protein and ash.^[20] The fat content present in the Pearl Millet is higher than the other millets due to its larger germ size and its high oil content. The Pearl millet is predominantly starchy as it contains 73gm of carbohydrate per 100gm of *Bajra* (Pearl millet). It is an important source of B-complex vitamins, mainly present in the outer bran layers of the grain.

Vrihi Dhanya (Rice)

Acharya Charak has mentioned *Vrihi* in *Shukadhanya Varga* but *Acharya Sushruta* has mentioned *Vrihi* in *Shali Dhanya Varga*. *Dhanya* matured in *Varsha Ritu* is said to be *Vrihi Dhanya*. *Krishna Vrihi* is best among *Vrihi Dhanya*. *Vrihi* is *Madhura* in *Rasa*, *Guru* (not easily digestible), *Ushna Virya* and *Amla Vipaka*.^[21]

Shashtika Dhanya (Rice)

It is also considered as a variety of rice. *Shashtika* has been mentioned by *Acharya Charak* in *Shukadhanya Varga* while it has been mentioned by *Sushruta* in *Shalidhanya Varga*. This type of rice is matured in *Grishma Ritu*. *Shashtika Dhanya* has been considered as *Madhura* in *Rasa*, *Laghu*, *Sheeta Virya*.

Use of *Shali*, *Vrihi* and *Shashtika* according to season

Grishma Ritu – *Shali Dhanya*

Varsha Ritu – *Purana Shali* (old rice)

Sharad Ritu – *Shali and Shashtika*

Hemanta – *Navodana* (new rice)

DISCUSSION

The word cereal is derived from *Ceres*, which means Roman goddess of harvest and agriculture. A cereal is composed of the endosperm, germ and bran. Cereals in the form of whole grain are a rich source of vitamins, minerals, carbohydrates, fats, oils and proteins. When the bran and the germ layer is removed, then the remaining part endosperm is carbohydrate. Refined cereals are stripped of bran and germ during processing, which makes them less healthy.^[22]

Whole grain cereals include entire grain kernel, which is a source of healthy fibre. Fibre is an important element of your diet which helps in controlling blood sugar levels and reducing risk of heart diseases. The whole grain cereals contain some phytochemicals having some health benefits. These phytochemicals include^[23]:

- 1) Lignans- lower the risk of heart disease and slow cancers.
- 2) Phytic acid- reduces the glycewmic index of food which is helpful for diabetic patients and protects against the cells developing colon cancer.
- 3) Saponins, phytosterols, oryzanol have been found to lower blood cholesterol.
- 4) Phenolic compounds: Have antioxidant effects

Cereals are enriched with niacin, iron, riboflavin, and thiamine, and most cereals have abundant fibre content, especially barley, oat, and wheat. Cereals also have soluble bran that aids in lowering blood cholesterol level and helps in preventing heart diseases.

Cereals in diabetes

Some whole grains has been mentioned which are helpful in maintaining the glucose level i.e. oatmeal, whole wheat flour, wheat bran, whole cornmeal, barley, brown rice. Oats and barley are rich in soluble dietary fibre i.e., β - glucan which is helpful in reducing postprandial glucose and insulin responses and also in maintaining glycemic control and regulating blood lipids.^[24] Along with fibre content, oats and barley having low glycemic index which helps in maintaining blood sugar level.

Cereals in Coronary heart diseases:

The outer layer of cereals contain phenolic acids, which are antioxidants and have protective potential against CHD. The most abundant are ferulic

acid, vanillic acid and caffeic acid. These phenolic acids in cereals brans would not benefit the circulatory system unless they could be absorbed in adequate amounts. The United States Food and Drug Administration (FDA) suggested that β - glucan of about 3gm or more per day from barley or oats may reduce the risk of coronary heart disease.^[25]

Cereals in Cancer

Cereals contain phytoestrogens of the lignin family. These phytoestrogens may have a protective effect against hormone related cancers. Barley contains both soluble as well as insoluble fibre. Soluble fibre i.e., β - glucan is beneficial in type 2 diabetes. Insoluble fibre present in barley may be beneficial in maintaining regular bowel function and in lowering the risk for certain cancers such as colon cancer.

CONCLUSION

As mentioned in Ayurveda, cereals should be taken in diet daily for promotion of health and prevention from diseases. Even *Acharya Charak* emphasizes on the regular intake of *Yava* (barley) and *Shashtika*, *Shali dhanya* (variety of rice) for the maintenance of health along with *Shimbi dhanya*, *Phala* and *Shaka varga*. Cereals are chosen for the consumption and they have the higher fiber which is an important nutrient that helps to prevent weight gain and heart disease.

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