Critical appraisal of Millets - A Conceptual Study

Deeksha Dubey¹, Trupti Jain², Nitin Marwaha³

¹Post Graduate Scholar, Dept. of Swasthavritta, Pt. K.L.S Govt. (Auto) Ayurveda College and Institute, Bhopal, Madhya Pradesh, India.
²Assistant Professor, Dept. of Swasthavritta, Pt. K.L.S Govt. (Auto) Ayurveda College and Institute, Bhopal, Madhya Pradesh, India.
³Professor, Dept. of Swasthavritta, Pt. K.L.S Govt. (Auto) Ayurveda College and Institute, Bhopal, Madhya Pradesh, India.

ABSTRACT

Recently the millets have been recognised with their enormous potential and they are renovate as Nutri-cereals (shree anna). Millets are good source of protein, vitamins, and minerals like phosphorus, calcium, magnesium, iron etc. As millets are loaded with phytochemicals, they help in management of various life style disorders like cardiovascular disease, obesity, diabetes mellitus, cancer. Millets are one of the oldest staples for various civilisation across the continents. In Ayurveda literature they are explained under the Dhanya Varga as Trindhanya, Kudhanya and Kshuhradhanya. General properties of millets are Ushna Veerya, Kashaya and Madhura Rasa, Katu Vipaka, Laghu and Ruksha Guna. But beyond these, some specific properties have also been mentioned in detail in Ayurveda Classics. In Ayurveda literature millets have been described as Pathya-Apathya in various diseases. Present paper encompasses various aspect of Millets described in Ayurveda and contemporary science so that the importance of millets is known to each and every person.

Key words: Millets, Trindhanya, Kudhanya, Kshuhradhanya, Lifestyle disorders.

INTRODUCTION

Millets are one of the oldest staples for various civilisation across Asia and Africa. They have been used as a food in India since 2500 BC. Millets contains many vitamins and minerals while being low in fat and high in fibres. In Ayurveda literature millets are explained under the heading of Dhanya Varga and described their therapeutic values in detail. In recent time lifestyle disorder like Diabetes mellitus, Cardiovascular disease, Obesity etc. have become prevalent due change in our lifestyle particularly in our ‘diet’. Several researches have proved that millets have immense potential in treating lifestyle disorder as they are loaded with abundant vitamins, minerals, fibres, and varieties of polyphenols. So, if we want to get rid of lifestyle disorder, we have to introduce it in our diet which has been our traditional food. Somehow during the course of modernisation the production and consumption of millets has declined significantly. So, there is a great need to revive the awareness about the nutritive and therapeutic value of millets.

REVIEW ON MILLETS

Recently the millets have been recognised with their enormous potential and they are renovating as Nutri-cereals (Shree Anna). Millets are abundant in nutrition, the presence of phytochemicals in millets have beneficial effect on human health. In Ayurveda literature detailed explanation of millets are available under Dhanya Varga (group of grains) as Kudhanya/Truna Dhanya/Kshudradhanya. Millets have been used as food as well as a therapeutic diet.

Various references of millets in Ayurveda
- Millets have been described by Acharya Charaka under Sukadhanya Varga (ch.sutra 27)[1]
Acharya Shusruta has described millets under Kudhanya Varga/ Kshudradhanya as they grow stray and wild (sus sutra 46)[2]

Acharya Bhavprakash has mentioned them in Trindhanya Vargas (grows like grass)[3]

In Nighantu Aadarsha it has been termed as Munidhanya because Rishimunis used to consume them due to its rich nutritional food value and easy digestibility.[4]

**Table 1: Different millets mentioned in Ayurveda.**

<table>
<thead>
<tr>
<th>Types of Millets</th>
<th>Charak a</th>
<th>Sushruta</th>
<th>Vagbhata</th>
<th>Bhavprakash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jowar</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Bajra</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ragi</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanwa</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Kodo</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Vanshyava</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kusumbh</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Sharbeeja</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Kanguni/Prashati ka</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Cheena</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Neewara</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Gavedhuka</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Lohitaanu</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Priyangu</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Mukunda</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Jhinti</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Varak</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Utkata</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

**Table 2: Classification of millets on the basis of grain size**

<table>
<thead>
<tr>
<th>Types of Millets</th>
<th>Major Millets</th>
<th>Minor Millets</th>
<th>Pseudo Millets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Millets</td>
<td>Sorghum, Pearl millet, Finger millet</td>
<td>Foxtail, Kodo, Barnyard, Little, Porso</td>
<td>Amarantha, Buckwheat</td>
</tr>
<tr>
<td>Minor Millets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo Millets</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Properties of millets:**

Along with the general properties of the millets, specific properties have also been mentioned. These properties when taken in account will be beneficial in the use of millets from person to person for prevention of diseases accordingly.
1. **Jowar (Sorghum)**

**Botanical Name:** Sorghum Vulgare  
**Family:** Poaceae  
**Classical Name:** Yavanala  
**Regional Name:** Joyaar, Jwaari, Juaar  
**Description:** Sorghum is an annual herb with erect stem. It grows to a height of 10-15 feet.  
**Distribution:** In India it is grown majorly in the states of Maharashtra, Rajasthan, Gujarat.

2. **Bajara (Pearl Millet)**

**Botanical Name:** Pennisetum Glaucom  
**Family:** Poaceae  
**Classical Name:** Vajraanna  
**Regional Name:** Bajari, Sajje  
**Description:** The pearl millet plant is a tall, erect annual grass that ranges from 10 feet in height.  
**Distribution:** In India it is grown majorly in the states of Tamil Nadu, Gujarat.

3. **Ragi (Finger Millet)**

**Botanical Name:** Eleusine Coracana  
**Family:** Poaceae  
**Classical Name:** Madhulika  
**Regional Name:** Madua  
**Description:** They are robust, tufted, tillering annual grass, grows up to 2-4 feet high.  
**Distribution:** In India it is grown majorly in the states Tamil Nadu, Gujarat.

**Pharmacodynamics**[^5]:

**Rasa:** Madhura  
**Guna:** Ruksha  
**Veerya:** Ushna  
**Vipaka:** Madhura  
**Dosha Karma:** Kaphavatahara  
**Karma and Roghagnata:** Balya, Punsatvahara, Durjara
Pharmacodynamics[^7]

**Rasa:** Kashaya, Madhura  
**Guna:** Laghu  
**Veerya:** Sheeta  
**Vipaka:** Katu  
**Dosha Karma:** Tridoshahara, Pittahara  
**Karma and Roghagnata:** Mutra- Alpakara, Jalodara, Pandu

4. **Sanwa (Barnyard Millet)**

**Botanical Name:** Echinochloa frumentacae  
**Family:** Poaceae  
**Regional Name:** Oodalu, Bhagara  
**Classical Name:** Shayamaka  

**Description:** It is a multipurpose crop which is cultivated for food and fodder which grows up to the height of 2-4 feet.  

**Distribution:** Mostly found in Southern and central states.

![Fig. 4: Sanwa (Barnyard millet)](image)

Pharmacodynamics[^9]

**Rasa:** Kashaya, Madhura  
**Guna:** Laghu, Ruksha  
**Veerya:** Sheeta  
**Vipaka:** Katu  
**Dosha Karma:** Vatakarka  
**Karma and Roghagnata:** Grahi, Sosana, Prameha, Medoraga, Urustambha, Raktapitta.

5. **Kodo (Kodo Millet)**

**Botanical Name:** Paspalum Scrobiculatum  
**Family:** Poaceae  
**Regional Name:** Kodra, Kodava  
**Classical Name:** Kodrava, Kordusha  

**Description:** It is an annual grass that grows to a height of approximately 3 feet.  

**Distribution:** Mostly found in Southern states (Kerala) and in north Uttar Pradesh.

![Fig 5: Kodo (Kodo millet)](image)

Pharmacodynamics[^9]

**Rasa:** Kashaya, Madhura  
**Guna:** Laghu, Ruksha  
**Veerya:** Sheeta  
**Vipaka:** Katu  
**Dosha Karma:** Vatakarka  
**Karma and Roghagnata:** Grahi, Sosana, Prameha, Medoraga, Urustambha, Raktapitta.

6. **Kanguni (Foxtail Millet)**

**Botanical Name:** Setaria Itali  
**Family:** Poaceae  
**Regional Name:** Kangni, Kakum  
**Classical Name:** Priyangu  

**Description:** It is fairly tolerant of drought. It grows up to the height of 1-1.5 meters.  

**Distribution:** Mostly found in Southern and central states.
**Fig. 6: Kanguni (Foxtail millet)**

- **Pharmacodynamics**[^10]
  - **Rasa:** Kashaya, Madhura
  - **Guna:** Guru, Ruksha
  - **Veerya:** Ushna
  - **Vipaka:** Katu
  - **Dosha Karma:** Kaphanashka, Vatakarakan
  - **Karma and Roghagnata:** Bhagnasandhankruta, Bruhanan

**7. Cheena (Proso millet)**

- **Botanical Name:** Panicum Miliaceum
- **Family:** Poaceae
- **Regional Name:** Barre, Cheno

Table 3: Nutritional values of different millets (per 100g)

<table>
<thead>
<tr>
<th>Millet</th>
<th>Protein</th>
<th>Carbohydrate</th>
<th>Fat</th>
<th>Glycaemic index</th>
<th>Calorific value</th>
<th>Ca(mg)</th>
<th>Fe(mg)</th>
<th>P(mg)</th>
<th>Mg(mg)</th>
<th>Zn(mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jowar</td>
<td>10.4</td>
<td>72.6</td>
<td>1.9</td>
<td>61.2</td>
<td>349</td>
<td>25</td>
<td>4.1</td>
<td>222</td>
<td>133</td>
<td>1.9</td>
</tr>
<tr>
<td>Bajara</td>
<td>11.6</td>
<td>67.5</td>
<td>5</td>
<td>56.6</td>
<td>361</td>
<td>42</td>
<td>8</td>
<td>296</td>
<td>124</td>
<td>2.7</td>
</tr>
<tr>
<td>Ragi</td>
<td>7.3</td>
<td>72</td>
<td>1.3</td>
<td>61.1</td>
<td>328</td>
<td>344</td>
<td>3.9</td>
<td>283</td>
<td>210</td>
<td>2.5</td>
</tr>
<tr>
<td>Sanwa</td>
<td>6.2</td>
<td>65.5</td>
<td>2.2</td>
<td>42.3</td>
<td>307</td>
<td>20</td>
<td>5</td>
<td>280</td>
<td>82</td>
<td>3</td>
</tr>
<tr>
<td>Kodo</td>
<td>8.3</td>
<td>65.5</td>
<td>1.4</td>
<td>65.4</td>
<td>309</td>
<td>27</td>
<td>0.5</td>
<td>188</td>
<td>122</td>
<td>1.6</td>
</tr>
<tr>
<td>Kanguni</td>
<td>12.3</td>
<td>60.9</td>
<td>4.3</td>
<td>54.5</td>
<td>-</td>
<td>31</td>
<td>2.8</td>
<td>290</td>
<td>81</td>
<td>2.4</td>
</tr>
<tr>
<td>Cheena</td>
<td>7.7</td>
<td>67</td>
<td>4.7</td>
<td>-</td>
<td>341</td>
<td>17</td>
<td>9.3</td>
<td>220</td>
<td>153</td>
<td>1.4</td>
</tr>
</tbody>
</table>

**Classical Name:** Cheenaka

- **Description:** It is an annual grass. It grows up to the height of 6-12 feet.
- **Distribution:** Central India and Gujarat

**Fig. 7: Cheena (Porso millet)**

- **Pharmacodynamics**[^11]
  - **Rasa:** Kashaya, Madhura
  - **Guna:** Guru, Rukhsha
  - **Veerya:** Sheeta
  - **Vipaka:** Katu
  - **Dosha Karma:** Kaphanashka,
  - **Karma and Roghagnata:** Bhagnasandhankruta, Bruhanan

---

[^10]: Kanguni
[^11]: Cheena
**Source:** Nutritive value of Indian foods by C. Gopalan, B.V. Sastri, S.C Bala Subramanian, revised and updated by B.S Narasinga Rao, Y.G. Deosthale and K.C. Pant, NIN 1989.

**Table 4: Millets as a Pathya-Apathya described in different Ayurveda classics**[12,13]

<table>
<thead>
<tr>
<th>SN</th>
<th>Millet</th>
<th>Pathya for disease</th>
<th>Apathya for disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kodo</td>
<td>Urustambha, Medoroga, Trushna, Prameha,</td>
<td>Kushtha</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kasa, Aamvata, Atishtula</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Kanguni</td>
<td>Raktapitta, Prameha, Atistula</td>
<td>Vatavyadhi</td>
</tr>
<tr>
<td>3</td>
<td>Jowar</td>
<td>Atistula</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Teenee</td>
<td>Raktapitta</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Neevara</td>
<td>Raktapitta, Prameha, Vatarakta, Atistula</td>
<td>Vatavyadhi</td>
</tr>
<tr>
<td>6</td>
<td>Sanwa</td>
<td>Kasa, Amavata, Prameha, Vidradhi,</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urustambha, Atistula</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Vanshayava</td>
<td>Prameha</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Cheena</td>
<td>-</td>
<td>Kushtha</td>
</tr>
<tr>
<td>9</td>
<td>Gavedhuka</td>
<td>Atishula, Chardi, Trushna</td>
<td>-</td>
</tr>
</tbody>
</table>

**Health Benefits of Millets**

**Cardiovascular Disease**[14]

Being rich sources of magnesium, millets help in reducing blood pressure. Also, the potassium present in millets helps in keeping blood pressure low by acting as a vasodilator and help to reduce cardiovascular risk. Proteins and phenolic extracts of some millets display control over renin-angiotensin system by reducing the level of angiotensin-converting enzyme thus helping in the management of hypertension.

**Obesity**[15]

Studies showed that consuming high fibre food helps in improving the bowel function and improving the digestion and absorption in the body. Millets helps in satiating hunger satisfaction and helps in management of obesity. With high fibre content, millets help to reduce problems like constipation, flatulence, bloating and stomach cramping.

**Diabetes Mellitus**[16]

Millets help in prevention of Diabetes Mellitus due to their significant levels of magnesium. Magnesium is an important mineral which helps in increasing the efficiency of insulin and glucose receptors by producing many carbohydrate digesting enzymes, which manages insulin action.

**Celiac Disease**[17]

Celiac disease is a problem triggered by the consumption of gluten. As the millets are gluten free, they help in reducing the celiac disease by reducing the irritation caused by the common cereal grains like wheat and rice which contain gluten.

**Antioxidant Property**[18]

Millets, are good source of phytochemicals. Phytochemicals like phenolics, sterols, lignans, inulin, resistant starch. Many of the antioxidants found in millet have beneficial impact on neutralizing the free radicals and helps in cleaning up other toxins from body.

**Cancer**[19]

Millets are rich phenolic acids, phytates and tannins which are the antinutrients which help in reducing the risk for colon and breast cancer. Recent research has revealed that eating more than 30 gm of fibres can reduce their chances of breast cancer by more than 50%. The free radical scavenging activity of phytochemicals help in managing oxidative stress and its associated metabolic disorders.

**Some Researches on Millets:**

<table>
<thead>
<tr>
<th>SN</th>
<th>Author and Title</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T Anju Jr et al. in the year 2010. Suitability of foxtail millet (<em>Setaria italica</em>) and barnyard millet</td>
<td>The result shows that biscuit from foxtail millet flour had the lowest GI of 50.8 compared to 68 for</td>
</tr>
</tbody>
</table>
Deeksha Dubey et al. Critical appraisal of Millets - A Conceptual Study

<table>
<thead>
<tr>
<th>No.</th>
<th>Author(s) and Year</th>
<th>Title/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(Echinochloa frumentacea)</td>
<td>for development of low glycaemic index biscuits</td>
</tr>
<tr>
<td>2.</td>
<td>Sakshi Sharma et al. in the year 2017</td>
<td>Evaluation of health potential of nutritionally enriched Kodo millet (Paspalum Scrobiculatum) grown in Himachal Pradesh, India,</td>
</tr>
<tr>
<td>3.</td>
<td>Golda Sahaya Rani et al. in the year 2021</td>
<td>Effectiveness of physical activity and finger millet-based food supplement on biochemical parameters and bone mineral density among premenopausal women</td>
</tr>
<tr>
<td>4.</td>
<td>Xin r. et al. in the year 2018.</td>
<td>The glucose-lowering effect of foxtail millet in subjects with impaired glucose tolerance: A self-controlled clinical trial</td>
</tr>
<tr>
<td>5.</td>
<td>Saurabh Mehta et al. in the year 2022</td>
<td>A randomized trial of iron-zinc-biofortified pearl millet-based complementary feeding in children aged 12-18 months living in urban slums</td>
</tr>
<tr>
<td>6.</td>
<td>Abubakar A et al. in the year 2015.</td>
<td>Characterization and the Anti-nutritional Composition of Unprocessed Finger Millet (Eleusine coracana)</td>
</tr>
<tr>
<td>7.</td>
<td>Seetha Anitha et al. in the year 2021</td>
<td>A systemic</td>
</tr>
<tr>
<td>8.</td>
<td>Janani Narayanan et al. in the year 2016</td>
<td>Postprandial glycaemic response of foxtail millet dosa in comparison to a rice dosa in patient with type-2 diabetes</td>
</tr>
<tr>
<td>9.</td>
<td>Varsha Vishwanath et al. in the year 2009</td>
<td>Evaluation of antioxidant and antimicrobial property of finger millet polyphenol (Eleusine Coracana).</td>
</tr>
<tr>
<td>10.</td>
<td>Mueni H et al. in the year 2014.</td>
<td>Comparative study on the antibacterial and chemical constituent of Pennisetum glaucum (pearl millet)and Zea mays (maize).</td>
</tr>
<tr>
<td>11.</td>
<td>Theodoro VMJ et al. in the year 2022.</td>
<td>Germinated millet (Pennisetum glaucum (L.) R. Br.) flour improved the gut function and its microbiota composition in rats fed with high-fat high-fructose diet.</td>
</tr>
<tr>
<td>12.</td>
<td>P Lakshmi Kumari et al. in the year 2002.</td>
<td>Effect of consumption of finger millet on hyperglycemia in non- insulin dependent diabetes millet (NIDDM) subjects.</td>
</tr>
</tbody>
</table>
Some major initiatives taken by Ministry of AYUSH to popularize the adoption of Shree-Anna or millets

1. Millet canteen (Pathya-Ahara unit): Start on 2nd Jan 2023 in All India Institute of Ayurveda, New Delhi.
3. Partner in Poshan Abhiyan: Ministry of Ayush has been the knowledge partner and actively participates in various activities for promotion of millet under Poshan Abhiyana.
4. Ayush startup for millets: A startup named Agastya foods from Institute and Research in Ayurveda Jamnagar has worked on millets along with the theme of “Ayurved Se Poshan”
5. Cookies made with ragi was developed in the pharmacy of the National institute of Ayurveda, Jaipur.
6. All India Institute of Ayurveda, New Delhi organised a workshop named millet-based food products development workshop in collaboration with NIFTM, Sonipat.
7. Food festival was organised by the Government Yoga and Naturopathy medical college and hospital Chennai called Millet and Natural food festival.
8. Some other initiatives are conducting various activities like exhibition of millet-based recipes, circulating millet calendars, awareness lectures and various quizzes.

**DISCUSSION**

General properties of millets as mentioned in Ayurveda classics are Ushna Veerya, Kashay and Madhura Rasa, Katu Vipaki, Laghu (light), Ruksha (dry), Kledashoshak (absorbs moistness), Lekhaniya (scraping), Vatakarak (increases Vata), Baddha Vitak (binds stools), Pitta-Rakta and Kapha Shamak (balances Pitta-Rakta and Kapha).

Ayurveda literature reflects that, apart from the dietary components, millets have been used as therapeutic agent as well. They have Lekhana (Scraping) and Kledashoshana (dries up excessive moisture) action thus useful in treating Santapanajanya Vyadhi (diseases due to over nourishment of single or multiple tissues).

Millets have immense potential in treating lifestyle disorders as they are loaded with good amount of proteins, carbohydrate, fibres, vitamins and minerals which indicates towards the wholesome diet (Pathya Ahara). Research showed that millets contain varieties of polyphenols (phenolic acids and flavonoids) because of these properties they exhibit antioxidant, hypolipidemic, hypoglycaemic and antimicrobial activity and thus, are useful in control and prevention of lifestyle disorders.

Millets are highly nutritious grain that provides a good balance of carbohydrates, protein, fibres, vitamins and minerals. Their nutritional composition makes them a valuable addition to a healthy and well-balanced diet, additionally; it is gluten free in nature. So, wheat can be replaced with gluten free grains such as sorghum, barnyard etc.

Millets are not only highly nutritious but also offer environmental benefits as they are drought-resistant, require less water, and exhibit resistance to pests and diseases.

In Ayurveda it has been mentioned that everyone should consume food in contrast with their Prakriti. If Vata Prakriti individuals regularly use millets then because of their pharmacodynamics they definitely induce Rukshata in body and disturbs the physiological functions of the body. Similarly, due to their Lekhan property Atikrusha individuals should be discourage from consuming millets on a regular basis. Likewise, in diabetes mellitus, those with low glycaemic index can be used to substitute the staple food.

As discussed earlier millets are very much useful in lifestyle disorders, Santarpanjanya vyadhis. After analysing the pharmacodynamics, nutritional values and various researches they may be specifically indicated as follows-

1. Finger millet is loaded with minerals like calcium, phosphorus, iron so we can advise them in disease
related with bone mineral density (BMD) and iron deficiency. Along with this it has good amount of magnesium (mg²) so helps in supporting muscles and nerve functioning.

2. Kodo and Sanwa due to their Grahi (absorbs excessive fluids) property can be advisable in Atisara (diarrhoea).

3. Bajara due to their Balya Karma (helps to improve energy and strength) can be advisable in Durba Purusha.

4. Analysing the general properties of millets, it is obvious that millets are best advised in Kaphaja Roga, Pittaja Roga and necessary to abstain them from Vataja Roga. But Vata Dosha of millets can be pacify through Samskara (processing) such as by adding ghee, Vata Shamaka Prakshepaks, Deepan-Pachana (helps in digestion) Dravyas in the recopies made with millets.

CONCLUSION

Ayurveda, acknowledges millets as an essential part of a wholesome diet and considers them beneficial for health. Millets can be included in a daily diet by creating a variety of healthy as well as delicious meals for example Ragi Ladoo, Sorghum cookies, Sattu, Chilla, Khichdi, Khakara, Barfi etc. Eventually millets are considered as best food but one should consume it by analysing the Prakriti, Awastha (disease condition), Agni of individual. And finally, the marketing of these products should be done so that the importance of millets is known to each and every person.

REFERENCES

1. Acharya Vidyadhar Shukla, Charaka Samhita vol 1, ch 27, Varanasi, Choukhamba Sanskrit Pratishthan, revised edition 2017
2. Kaviraja Ambikadutta Shastri, Susruta Samhita vol 1, ch 46, Varanasi, Choukhamba Sanskrit Sansthan, reprint 2018
5. P.V Sharma, dravyaguna vijnana, dhanyavarga, section 3, Varanasi Choukhamba Bharti Academy, edition 2005 p 164
6. P.V Sharma, dravyaguna vijnana, dhanyavarga, section 3, Varanasi Choukhamba Bharti Academy, edition 2005 p 166
7. P.V Sharma, dravyaguna vijnana, dhanyavarga, section 3, Varanasi Choukhamba Bharti Academy, edition 2005 p 156


Source of Support: Nil, Conflict of Interest: None declared.