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Traditional methods of food habits and dietary preparations in Ayurveda—the Indian system of medicine

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Abstract

Ayurveda (the science of life) is one of the branches of Vedas. It is regarded as *upaveda* of Atharva Veda. It is a stream of knowledge coming down from generation to generation since eternity parallel to Vedic literature which is why its emergence has been said to be from the creator (Brahman) himself prior to the creation. It is taken as eternal because nobody knows when it was not there. In Ayurveda, food is considered to affect the mind as well as the body. By understanding how to prepare foods best suited to our minds and bodies, we can utilize nutrition as a source of healing. Food is the most essential to sustain a good life and the same food if consumed inappropriately becomes the root cause of many diseases. So, proper knowledge about food and its importance should be known by all human beings to have better benefits from it.

Keywords: Nutrition, *Anna*, *Yusha*, *Takra*, *Ahara*, *Sattvic* diet

1. Introduction

Ayurveda believes that *ahara* articles are composed of five *mahabhutas* and respective *bhutagnis* digest their own ingredients during the process of digestion and metabolism but only when they are stimulated by *antaragni*. Traditional wisdom about the processing of food, its **preservation techniques**, and their therapeutic effects has been established for many generations in India [1]. Classical Ayurveda texts cover an array of themes on food ranging from the diversity of natural sources, their properties in relation to seasons and places and to their specific function both in physiological and pathological states [2]. Foods and drinks with desirable smell, taste and touch and having been taken according to the prescribed method are said as vital strength by the experts on the basis of observing their results directly because the condition of internal fire depends on their fuel. They produce energy in mind, the constitution of *dhatu*s, strength, complexion and clarity of sense organs, if properly taken; otherwise, they become harmful [3].

1.1. Basic principles of Ayurvedic nutrition

Nutrition is the most important because from a proper wholesome and balanced diet, all the body constituents—*dosha*, *dhatu* and *mala*—are formed. That is why it is said that ‘we are what we eat’. Food is not only essential for our physical well-being but it provides nutrition for our mind as well.

In Upanishad, it has been stated that the food we consume gets divided into three parts. The gross part is converted into flesh and a subtle part nourishes the mind. It is also stated there that the water we drink also gets divided into three parts. The major part becomes urine, the middle part becomes blood and the subtle part nourishes our life force or *prana*.

1.2. Emphasis laid by Vedic (ancient Indian) literature on *ahara kalpana*

Vedas were not the *aushadha granthas*, but like encyclopedias, they included everything relevant. Man always is behind the taste in the food he consumes. As we try to make delicious food items out of different vegetables available, in the same way in the Vedic period, also man might have tried out different *ahara kalpana*.

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Fig. 1 Sattvic diet

Different *anna kalpana* are prominently referred in Vedic literature. *Yava* (a type of grains) has reference in many contexts—Rigveda, Yajurveda and Atharva Veda.

Dhana (fried *yava dhanya*), *karambha* (churned food items), *saktu* (roasted flour), *parivapa* (roasted grains), *payas* (milk), *dadhi* (curd), *soma* (*dravya visesha*), *amiksha* (milk + curd), *vajina* (liquid part while preparing *amiksha*) and *madhu* (honey) are few of the names of *ahara dravya* in use during the Vedic period. In different contexts, direct references for *madya kalpana* (fermented preparations), *payasa*, *dadhi*, *navanita*, *sarpi*, *parivapa*, *laja*, *saktu*, *karambha*, *odana*, etc. are found in Vedic literature.

1.3. Emphasis laid by Samhitas (ancient Ayurvedic texts) on *ahara kalpana*

Ayurvedic Samhitas (ancient Ayurvedic texts) are described in detail about the concept of *ahara kalpana* with details of its properties and uses as per context. It also includes the advanced methods and articles for preparation of *ahara kalpana*.

1.3.1. Food habits in *Sushruta Samhita*

According to Susrutacarya, one should eat the proper quantity of food at the proper time by sitting on a raised platform. After meals, we should sit comfortably like a king and then have a short walk. On eating, first, we should take a sweet taste, then salt and sour tastes and then pungent, bitter and astringent tastes. Sweet taste helps to overcome *vayu* in the stomach in a hungry person; salt and sour tastes stimulate the digestive fire; and the pungent, bitter and astringent tastes taken in the end subdues *kapha dosha*. Also, some fruits taken in the beginning help to overcome *vata dosha*. Indian gooseberry is recommended to take in the starting, middle and end of

the meal. One should take heavy foods up to one-third of the fullness and light foods can be taken up to satiation.

1.3.2. Food habits in *Charaka Samhita*

Charaka Samhita Sutrasthana 27th chapter (Annapana Vidhi Adhyaya) explains about various types of grains and pulses; various types, qualities and benefits of fruits and vegetables, milk and dairy products, sugarcane preparations, honey; and its types, waters, wines. etc.

Food articles are classified according to the following 12 groups: *Shuka dhanya* (grains), *Shami dhanya* (pulses), *Mamsa varga* (meats), *Kshira varga* (milk and milk products), *Shaka varga* (vegetables), *Phala varga* (fruits), *Harita varga* (green leafy vegetables), *Jala varga* (waters), *Taila varga* (oils), *Ikshu varga* (sugarcane products), *Krutanna varga* (prepared foods).

In this chapter, Acarya is also explaining about properties of foods and drinks in general, ingredients having foremost qualities, postprandial drinks along with their properties, brief statements on heaviness and lightness of foods ingredients, etc.

1.3.3. Food habits in *Ashtanga Hridaya*

Vagbhatacharya insists to take the food sitting on the floor. According to him, this intensifies the digestive fire. And also, the food plate should be kept a little bit above the floor. At noon time, one can take lighter meal, juice or buttermilk. We should take our evening meals while the sun is still out. According to Acarya, we should have our dinner before sunset, as the digestive fire becomes dormant once the sun sets. We should practise lying down on our left side after eating. Lying on the left side activates the *pingala* (*soorya*) *naadi* on the right side of the body. Activation of *pingala nadi* in turn activates the digestive fire. He recommends us to take only liquid



Fig. 2 Yavagu

food after sunset. This is important for asthma, diabetes and *vata* diseased patients.

1.4. Food for mind

In Ayurveda, foods are used to support and bring out the three qualities of mind. Foods which support *sattwa* are called *sattvic* foods. Foods which draw out *raja* are

called *rajasic* foods, and the foods which increase *tamas* are called *tamasic* foods.

1.4.1. Sattvic diet

Sattvic means pure essence. This is the purest diet for a consciously spiritual and healthy life. It nourishes the body and maintains it in a peaceful state. According to Ayurveda, this is the best diet for physical strength, a



Fig. 3 Rice preparations



Fig. 4 *Khichadi*

good mind, good health, and longevity. And it calms and purifies the mind, enabling it to function at its maximum potential. A *sattvic* diet thus leads to true health: a peaceful mind in control of a fit body, with a balanced flow of energy between them. A *sattvic* diet is excellent for those individuals who desire to live a quiet, peaceful

and meditative life. *Sattvic* foods include sprouted whole grains, fresh fruit, land and sea vegetables, pure fruit juices, nut and seed milk and cheese, legumes, nuts, seeds, sprouted seeds, honey and herbal teas. *Sattvic* foods are those foods which do not agitate your stomach at all (Fig. 1).



Fig. 5 *Yusha*



Fig. 6 Takra

1.4.2. *Rajasic diet*

According to Ayurveda, the foods which aggravate *pitta* and *vata doshas* and that which increase anger and restlessness are called *rajasic* foods. They stimulate more fire, outward motion, creativity, aggression and passion. It includes too much spicy, salty and sour foods. Sour and spicy preparations, pickles, tea, coffee, alcohol and vegetables like onion, garlic, etc. are said to be *rajasic* in nature. The mind-body equilibrium will be destroyed by *rajasic* foods and they make the mind restless and uncontrollable.

1.4.3. *Tamasic diet*

Foods that increase the inner darkness and confusion are called *tamasic* foods. *Tamasic* foods include fried and frozen foods, fast foods, microwaved foods, processed foods, left overnight foods, meat, fish, eggs, onion, alcohol, etc. They are good for slowing us down, numbing us, depressing us and enhancing inertia. *Tamasic* food is the unhealthiest food of all.

1.5. Diet for *doshic* constitutions

Tolerance of food, drinks, environment depends on the type of *doshic* constitution. By understanding the *doshic*



Fig. 7 Supa

constitution of the individual, one can choose appropriate food, drinks and environment.

1.5.1. Diet for vata constitution

The functions of *vata dosha* in the body include movements in the body, process of elimination, controlling the nervous system, etc. The individuals with *vata* constitution possess dry, light, cold, quick, irregular and rough qualities. So they need smooth, heavy, warm qualities which are opposite to their own qualities. *Vata* people should take fresh, warm food with sweet, sour and salty tastes. They should avoid too much fasting and also the use of spicy food to regulate their digestion. Diet for *vata* constitution includes warm drinks, sweet fruits, raw nuts, milk, butter, cream, hot cereals, etc.

1.5.2. Diet for pitta constitution

Pitta persons have hot, penetrating or sharp, flowing liquid, slightly oily and light qualities in them. These persons should take food and drinks opposite to these qualities—cool, mild, maintaining dry and heavy qualities. *Pitta* accumulates in the rainy season and gets aggravated in October. Balancing and strengthening diet with mainly sweet, bitter and astringent will be perfect for this constitution. Cool foods and drinks, especially in hot weather and also eat a mostly vegetarian diet which suits the constitution, are preferred.

Adequate intake of raw food and juices are indicated. Cool water should be taken and coffee, alcohol, black teas, pickles, vinegar, chillies, vegetable oils, bakery products, canned foods, instant foods, hybrid grains, etc. should be avoided.

1.5.3. Diet for kapha constitution

The functions of *kapha dosha* in the body include protection, governs the structure of the body, provides immunity, holds the cells together, forms the muscle and bone, etc. The individuals with *kapha* have slimy, cold, heavy and soft qualities. They need foods and drinks which are opposite to their own qualities. So they need hard, warm, light foods with astringent, pungent and bitter tastes. They should prefer low carbohydrate, low-fat diets without sugars. The people with *kapha* constitution should avoid frequent eating, frozen edibles and cold water.

1.6. Some traditional dietary preparations in Ayurveda

Ayurveda advocates more on the prevention rather than cure of diseases and obviously emphasizes on the ideal food to be consumed to attain and sustain good health. The below mentioned are some traditional dietary



Fig. 8 Rasala

Table 1 Showing general ratios of water to be added

Preparation	Ratio of water
Manda	14 times of water
Peya	Four times of water
Vilepi	Four times of water
Yavagu	Six times of water
Anna	Four times of water

preparations of Ayurveda which is called as *pathya* which means that which is wholesome and soothing to our body.

1.6.1. Manda, Peya, Yavagu and Vilepi

Rice has to be boiled over moderate fire until it gets properly cooked with water. Depending on the quantity of liquid and solid part taken from the cooked rice, it is categorized as shown in Table 1.

Manda: Only the supernatant liquid part is taken leaving the boiled rice

Peya: Equal solid rice and liquid portion are taken

Yavagu: More solid rice portion and less liquid part are taken together (Fig. 2)

Vilepi: Only solid rice part is obtained

1.6.2. Anna kalpana (rice preparations)

Properly washed rice is soaked in water until the rice particles swell a little and later boiled with water, filtered and the solid portion used (Fig. 3).

1.6.3. Some other preparations

Khichadi To prepare *khichadi*, *tandula* and *simbi dhanya* are taken in either in equal quantity, 1:1/2 ratio or 1:1/4 ratio as per the need. A little amount of *sneha* (oils), *saindhava lavana* (rock salt), *ardraka* (*Zingiber officinale*), *hingu* (asafoetida) and *haridra* (curcumin) are added to the preparation. The mixture is cooked in a vessel with six parts of water to attain a solid consistency. It alleviates *kapha* and *pitta dosha*, provides energy and subsides *vata dosha* (*vata*, *pitta* and *kapha doshas* are basic constituents of the body) (Fig. 4).

Yusha It is a semisolid preparation obtained by boiling one part of different types of *dhanya visesha* (*kulattha*, *yava*, *mudga*) along with one-eighth quantity of *sunthi* (dried ginger), *pippali* and 16 parts of water (Fig. 5).

**Fig. 9** Saskuli

Takra It is a liquid preparation prepared by continuously churning the curd for one *prahara* (3 h) with different ratios of water added (Fig. 6).

Indications of takra

It is indicated in indigestion, piles, fever, diarrhoea, anaemia, dysentery, etc.

Kurchika The *kurchika* preparations are the inspissated milk or its products. Wherein the products are boiled to a diminished fluidity state.

Khada and Kambalika These two are the special preparations of *yusha* prepared by *takra* and any *dhanya visesha*.

Raga and Sadava These are prepared using juices of *jambu*, *vrikshamla* and *parushaka* with required quantity of mustard, sugar and salt added to it.

Saktu The *churna* of the roasted *dhanya visesha* is called as *saktu*. Wheat, barley, rice, ragi, maize, etc. are roasted properly and later brought into fine powder.

Supa It is the preparation where any of the *simbi dhanya* (red gram, green gram, etc.) are soaked, dehusked and boiled with enough quantity of water along with the required quantity of salt, oil/ghee and other spicy ingredients (Fig. 7).

Rasala To prepare this, the curd is added with the required quantity of sugar, chilly, ghee and honey. This is churned properly and added with little quantity of *karpura* for good odour (Fig. 8).

Visyandana Raw wheat flour is boiled with an equal quantity of ghee and milk to a state where it is neither solid nor too liquid.

Saskuli These may be prepared with rice, wheat, *ragi*, flour, etc. The flour is mixed with required quantity of *tila*, *kamala kanda* and water to bring it in paste form. A part of this paste is placed in a special instrument and pressed. The drug comes out in a thick thread form of special designs. This is put into edible oil placed over fire. After proper frying, it is taken out, allowed to cool down and used (Fig. 9).

Prithuka Any of the *dhanya visesha* is soaked in water, later roasted and pounded to separate the husk part and the preparation will be called as *prthuka*.

Mamsa rasa A soup prepared by boiling chopped meat with required quantity of water. Two, four, six or eight times of water are added considering the nature of meat with the chopped *mamsa* and boiled over moderate fire to get it in desired consistency (Fig. 10).

Vesavara Boneless meat is steamed and smashed. It is boiled with the required quantity of *guda*, *ghrita*, *pippali churna*, *marica churna*, *sunthi*, *lavana*, etc. along with enough quantity of water.

2. Discussion

Through centuries, food has played a vital role for human beings in health and disease. The history of man to a great extent has been a struggle to obtain food.



Fig. 10 *Mamsa rasa*

Ayurveda is a healing science which considers food as a major therapeutic tool. Ayurveda recommends us to eat *sattvic* (pure and fresh) foods avoiding *rajasic* (fiery) and *tamasic* (spoiled) foods. *Sattvic* foods are fresh and light and help to clear the mind. Ayurvedic food habits help us to regularize absorption, assimilation and elimination. The role of food on the behaviour and character of a person is not negligible. As our food will be pure and natural, our brain will also be healthy and active. Ayurvedic food habits help in strengthening immune systems and assisting the gut in functioning more effectively. With a clear mind and a healthy body, one can more easily fulfil one's soul purposes.

3. Conclusion

Ayurveda, a traditional system of medicine that originated over three millennia ago in the South Asian region, offers extensive insights about food and health based on certain unique conceptual as well as theoretical positions [4]. There has been an increased global interest in traditional medicine. Efforts to monitor and regulate traditional herbal medicine are underway [5]. Food is an essential requirement in life and one can attain good health by following a proper, natural diet. Most health problems develop due to the wrong eating habits and cooking methods. Out of the three *upastambhas* (supports of life), i.e. *ahara* (diet), *nidra* (sleep) and *brahmacharya* (observance of celibacy); the first one has been given more importance and considered to be the best in Ayurveda. A proper, optimum and skillful use of these triads, human body to maintain its integrity, being enriched with *bala* (physical and immunological strength), *varna* (complexion) and *upachaya* (growth of nourishment), till full length of life, provided the person concerned does not get involved in the regimen detrimental to health.

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Competing interests

The authors declare that they have no competing interests.

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