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A Review of *Kshirpak* (Medicated Milk); A Preventive Ayurved Nutraceutical in Various Disease Conditions

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ABSTRACT

In Ayurveda Diet or ahara is considered as a Mahabhaishajya (Supreme medicine) to prevent and manage the diseased conditions. Since childhood many medicinal herbs are given to the child daily for maintenance of health as well as for improvement of strength in the form of *Janmaghuti* (small amount of medicines in milk). It is clearly observed that diet, which provides nutrition also balances all aspects of health and prevents the illness. Bsheshajahara can be synonymous with nutraceutical according to Ayurvedic perspective. Many references of medicinal food recipes are mentioned in ancient texts of Ayurveda.

Since last decade the concept of Nutraceutical is in discussion. Combinations of food and medicines come under the scope of nutraceutical as per its definition. The food supplements like vitamins, Minerals, fortified foods are considered as Nutraceutical. These products have natural, bio-active compounds which promote health, at the same time help to prevent illness. Many recipes are described in the management of diseases under the heading of Pathyaahara. In these recipes, combinations of medicinal herbs and diet are explained. Some examples of these are various *Soups, Yavagus, Yush, Odana, Kshirapak, Khada* and many more. Many references of medicated milk (processed with medicinal herbs- siddha kshir or Kshirapak) are listed in ancient texts. These are explained in many diseases for management of respective disease. Present article is an effort to review such references of Kshirapak in various diseases which can be considered as Nutraceutical.

KEYWORDS

Ayurveda, Kshirpak, Nutraceutical



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INTRODUCTION

A well-known coffee house chain company of America has recently come up with a new type of coffee with Turmeric available in all its stores worldwide. This warm coffee is prepared by adding Turmeric powder and few aromatic spices to milk, which gives an aromatic flavor to most appreciated latte.

Turmeric milk which is mentioned in above news is nothing but the *kshirpak kalpana* explained in *Ayurved*. The word *Kshirapak* means processed milk. Many references of *siddha kshira* or *kshirpak* are mentioned in various diseases. *Kshira* is an essential component of human diet. The first ever nutrition is mother's milk for any mammal. *Ayurveda* has considered milk as an important component of diet and explained it in *Dugdha varga* and *Dugdhavikruti* (Milk and Milk Products) in the classification of Diet. Milk is considered as *Purnanna* (complete food).

In recent times "Nutraceutical" a new term is in discussion. Nutrition as medicine is not a new concept. *Ayurveda* has already considered this concept since ages. It has mentioned *Aahar* as Supreme Medicine or *Mahabhaishajya*¹.

Nutraceuticals are considered as designer foods, health foods, fortified foods, medi foods, vita foods, food supplements with

specific function. In *Ayurveda*, the importance of particular diet for avoidance and management of diseases was well known as early as 1000 BC. Since ancient times Indian people are using medicinal herbs in combination with food in daily diet. This can be also named as *Bheshajahara*.

*"Tat cha nityam prayunjeet svasthyam yen anuvartate. Ajaatanam vikaranam anuttpattikaram cha yat"*².

(In this shloka it is elaborated that daily consumption of diet gives nutrition to body which ultimately maintains health and prevents diseases.)

*"Pathye sati gadaartasya kim aushadh nishevane. Pathye asati gadaartasya kim aushadh nishevane"*³.

(The above shloka emphasizes that if *pathya* diet is taken then there is no need of medicine and if *pathya* is not observed then medicine is of no use).

Ayurveda has given immense importance to nutritious food in following ways: (i) Healthy diet can slow down the deterioration changes in old age--- (*Rasayana*); (ii) Nutritious diet helps in fast recovery after diseased condition --- (*Balya*) (iii) Diet can improve the immune system -- (*Roga pratibandhaka rasayana*) (iv) Conservation of strength and liveliness is achieved by diet-- (*Vajikarana*) and (v)



Regeneration of tissue is achieved by diet--
- (*Jeevaniya*)

The drugs or diet which provide *Rasayana* effect is classified into three types. *Kamyas*: (for strength, intelligence etc), *Naimmittika*: (for particular disease) and *Ajasrika* (Conventional) which deals with daily use of particular food substances to regenerate the body tissue. Milk is explained as a *Nitya rasayana*, *Jeenaniya*, *Balya*. It improves the strength, defence system, maintains vigor and vitality.

In this article a review of *Kshirapak* or *siddha kshira* is done as a Nutraceutical in various disease conditions.

AIMS AND OBJECTIVES

1. To study *Kshirapak kalpana*
2. To study the concept of Nutraceuticals.
3. To study various *kshirapak* preparations as Nutraceutical in various diseased conditions.

Study of *Kshirapak kalpana*

Kshirapak kalpana as per various ancient texts of Ayurveda

1. According to *Acharya Sharangadhara* to prepare a *Kshirapak*, medicinal herb, 1 part is to be added in 8 parts of milk and 32 parts water. This mixture should be heated till water is evaporated and only milk remains in it, then it should be filtered and *kshirapak* is ready to serve⁴. As per

Acharya Vagbhata (Ashtanga Samgraha) the drugs, potential vitality reduces if it is mixed with water and milk together. Hence to derive the vital extract of dravya (drug) in its full potency it is suggested that a concoction of dravya should be mixed with milk, on a low flame to remove the water from this mixture and remaining portion is filtered. Some sugar is added in it and it is ready to serve⁵.

2. *Kshirapak* is not to be prepared by adding sour, bitter or salty *dravyas* to milk as it will curdle the milk⁶.

3. *Kshirapak dravyas* which are commonly used either individual or in combinations are: *Arjun*, *Rason*, *Shunthee*, *Pippalee*, *Chandan*, *Shatavaree*, *Ashwagandha*, *Vidareekanda*, *Bala*, *Chitrak*, *Kantakaree*, *Haridra*, *Mustak*, *Gokshur*, *Musali* etc.

4. Preparation of *kshirapak* is cost effective and can be consumed for long time.

Study of the concept of Nutraceuticals:

The word Nutraceutical is derived by comprising the words nutrition & pharmaceutical.

Definition: A food stuff or a food supplement which provides adjuvant benefits to health apart from its original nutritional function can be called as Nutraceutical⁷.

It is of two types, 1. Dietary supplement 2. Functional food



1. Dietary supplement is a formulation taken orally which contains an additional "dietary ingredient" intended to add some adjuvant nutritive factor to the diet. This added nutritive ingredients may be in the form of Vitamins, Minerals, Medicinal herbs, Protein ingredients and Vital enzymes etc. Or these can also be extracts or concentrates of medicinal herbs. These can be administered in dosage forms such as tablets, capsules, soft gels, gel caps, liquids or powders. It only enhances the nutritive value of diet by providing structural and functional support to the body and may not treat a disease or a condition⁸.

2. Functional food

The dietary combinations which are prepared by adding complementary nutrients are called as functional foods. For example, Vitamin D added in milk or hydrogenated fat or Iodine added in salt. In these cases, Milk or salt are regularly consumed as essential component of diet. By adding Vitamin D to milk and Iodine to salt will enrich nutritional value of milk and salt and can give a specific medicinal or physiological benefit to the consumers.

There are three characteristic features of functional food.

- The food is in naturally occurring form and not in any formulated dosage form.

- It is consumed as regular diet component.
- Because of addition of complementary ingredient, it can regulate biological process either to prevent or to control the disease.

Commonly following substances can be included as Nutraceuticals

- a. Minerals, Vitamins and other dietary supplements.
- b. Herbal products: *Garlic, Ginger, Pippli, Turmeric (Curcumin), Guduchi, Ashwagandha, Bala, Gokshur* etc.
- c. Dietary Enzymes: Bromelain, Papain etc.
- d. Dietary fiber
- e. Hydrolyzed proteins
- f. Phytonutrients: Resveratrol
- g. Carotenoids: Lycopene
- h. Prebiotics
- i. Probiotics

Nutraceuticals are regular substances and not drugs which are synthetically prepared for a specific action.

Study of various *kshirapak* preparations as a Nutraceuticals in various disease conditions:

The method of *kshirapak* kalpana is very simple and it gives maximum benefits of drug to the person who is consuming it. *Kshirapak* prepared with various drugs as per the specific need of an individual acts as *Balya, Rasayana, Shothhara*(anti-



inflammatory, *Vathara, Pittashamaka*, metabolic stimulant . Some *kshirapak* or *siddha kshira* mentioned in various *Ayurved* texts are tabulated in Table no.1. In 2007 and 2014 experiments were done

on Coriander, Ginger, Pepper, Basil and Turmeric to find their antioxidant property in water decoctions and milk decoctions and their comparison was done.

Table 1 *Kshirapak*, Benefits and References

SR. No.	Name of the drugs used to prepare <i>Kshirapak</i>	Benefits	Reference
1.	<i>Arjun, Nagbala, Kavach beej, Madhu, Ghrita, Sharkara, Chandan</i> ⁹	<i>Rajyakshma, Kasa</i>	<i>Chakradatta.</i>
2.	<i>Rason</i> ¹⁰	<i>Gulma, Udavarta, Gridhraci, Hridroga, Vidradhi, Shosha, Vishamajwara</i>	<i>Ashtanga sangraha chikitsasthana 16/6</i>
3.	<i>Shunthee, Balamula, Kantakari, Gokshura, Guda</i> ¹¹	<i>Shopha, Malamutra Avarodha, Vata vibandha, Jwara, Kasa</i>	<i>Ashtanga sangraha Chikitsasthana, 2/21</i>
4	<i>Pippali</i> ¹²	<i>Jirna jwara</i>	<i>Ashtanga sangraha Chikitsasthana, 2/21</i>
5.	<i>Shatavari, Bala, Draksha, Sharkara</i> ¹³	<i>Balya, Murcha</i>	<i>Chakradatta, Murcha</i>
6.	<i>Ashwagandha, Ghrita</i> ¹⁴	<i>Balya, Garbhaprada</i>	<i>Chakradatta, Yonivyapad</i>
7.	<i>Vidarikanda, Kadamba/Tadphala</i> ¹⁵	<i>Kshayakasa, Dhaturbalya, Mutrakrichra, Mutravivarnata</i>	<i>Ashtanga sangraha Chikitsasthana, 3/15</i>
8.	<i>Bala, Shatavari, Rasna, Dashmul, Pilu, Errand, Hirda, Nishottar</i> ¹⁶	<i>Balya, Specially for malnourished</i>	<i>Ashatang Hriday Chikitsa sthana 22/8</i>
9.	<i>Chitrak, Shunthee, Punarnava</i> ¹⁷	<i>Arsha</i>	<i>Ashtanga sangraha Chikitsasthana, 10/5</i>
10.	<i>Sunthee, Chikana, Kantakari, Gokshur, Gud</i> ¹⁸	<i>Kasa, shotha, Jwara</i>	<i>Ashatang Hriday Chikitsa sthana 1/112</i>
11.	<i>Panchmula, Bala</i> ¹⁹	<i>Vatavyadhi</i>	<i>Chakradatta</i>
12.	<i>Mustak</i> ²⁰	<i>Atisar, Shula, Aamdosh</i>	<i>Chakradatta</i>
13.	<i>Gokshur, Shilajit</i> ²¹	<i>Shukravrodh</i>	<i>Ashtanga sangraha Sutrasthana 5/24</i>
14.	<i>Guduchi</i> ²²	<i>Vatarakta</i>	<i>Ashatang Hriday chikitsa sthana 22/7</i>

It was seen that milk decoctions exhibit potent antioxidant action in comparison with water decoctions. It proved that milk decoctions are more beneficial as compared to water decoctions of same *dravya*²³⁻²⁴.

In one more study carried out by Alka k Bhandare; Kuruwar Rashi and others

namely Efficacy of Ashwagandha Kshirpak on Anxiety Neurosis found encouraging results²⁵.

CONCLUSION

Properties of *kshirapak* matches with the basic properties of functional Nutraceutical.



It is easily available and appropriate drugs can be added to make it more potent for disease specific conditions to use on daily basis. *Kshirapak* preparations are used since thousands of years to improve the health of diseased persons as well as to maintain the healthy. *Kshirpak* is processed milk which is in naturally occurring form, it can be consumed in daily diet. It is used as freshly prepared, cost effective and fulfills all the criteria of a Functional Nutraceutical.

Hence it can be concluded that *Kshirapak* can be considered as Functional Nutraceutical and is useful as a preventive medicinal supplement as well a drug in various diseased conditions.



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