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Review Article

NUTRACEUTICALS - AN AYURVEDA PERSPECTIVE

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ABSTRACT

Consumers demand for quality of life and seeking complementary or alternative beneficial products has fueled the 'Nutraceutical revolution'. Nutraceuticals are natural bioactive materials that provide demonstrated physiological benefits or reduce the risk of chronic diseases, above and beyond their basic nutritional function. The association of Nutraceuticals with traditional medicine brings the long-standing consumer acceptance. Although the concept of Nutraceuticals is gaining more popularity more recently, its roots can be traced to the ancient Indian system of medicine, *Ayurveda*. The classical texts of *Ayurveda* are filled with scattered references of implication of food products in various disease entities. *Ayurveda*, the 5000 year old health science has mentioned benefits of food for therapeutic purpose. The Philosophy behind is "Focus on Prevention".

Keywords: Nutraceuticals, Ayurveda, Chronic diseases, Traditional Medicine.

INTRODUCTION

"Let food be thy medicine and medicine be thy food"
(Hippocrates 400 BC)

Hippocrates, The father of western medicine advocated the healing effects of food¹. Medicinal benefits of food have been explored for thousands of years.

The Indians, Egyptians, Chinese and Sumerians are few civilizations that have used food as medicine. The modern Nutraceutical market began to develop in Japan during the 1980s. In recent years there is a growing interest in Nutraceuticals & dietary supplements which provide health benefits. It is clearly stated that Nutraceuticals are food substances, which besides providing nutrition helps to maintain the healthy state and prevents the occurrence of diseases.

NUTRACEUTICALS – DEFINITION AND CLASSIFICATION

The term "nutraceutical" was coined from "nutrition" and "pharmaceutical" in 1989 by Stephen De Felice, MD, founder and chairman of the Foundation for Innovation in Medicine (FIM), Cranford. Nutraceuticals are food or part of food that provides medical or health benefits including the prevention and treatment of disease². Such products may range from isolated nutrients, herbal products and processed foods such as

cereals, soups, and beverages. These can be grouped into 3 broad categories:

- i. Nutrients: substances with established nutritional functions such as vitamins, minerals, amino acids and fatty acids.
- ii. Herbals: herbs or botanical products such as concentrates and extracts. e.g: Aloevera, Garlic, Ginger etc.
- iii. Dietary supplements: Antioxidants, Probiotics, Prebiotics etc.

BENEFITS OF NUTRACEUTICALS

- May have natural dietary supplement, so do not have unpleasant side effects.
- May increase the nutritional value of diet and improves health.
- May easily be available and economically affordable.

NUTRACEUTICALS AND AYURVEDA

Although the concept of Nutraceuticals is gaining more popularity more recently, its roots can be traced to the ancient Indian system of medicine, *Ayurveda*, the 5000 year old health science which has mentioned benefits of food for therapeutic purpose. The Philosophy behind is, "Focus on Prevention"³. Acharya Charaka classified raw food materials in to 12 groups, based on their nutritional & therapeutic properties.

1. *Shooka Dhanya* (Corns With Bristles)
2. *Shami Dhanya* (Pulses)
3. *Shaka* (Vegetables),
4. *Mamsa* (Meat),
5. *Phala* (Fruits),
6. *Harita* (Salads),
7. *Ambu* (Water)
8. *Gorasa* (Milk & Milk Products),
9. *Ikshuvikara* (Products of Sugar Cane Juice),
10. *Madya* (Wines),
11. *Krutanna Varga* (Food Formulations),
12. *Aaharayogi varga* (Accessory Food Articles)⁴.

The use of Nutraceuticals in Ayurveda can be classified according to:

- i. The age of individual: e.g: *brahmi* & *vacha* along with honey is given to new borns to pacify the increased *Kapha dosha* & to improve the memory of the child.
- i. Season of consumption: e.g: Ritu *haritaki*-*Haritaki* should be used along with *Saindhava* in *varsha ritu*, with *sarkara* in *sarat ritu*, with *sunti* in *hemanta*, with *pippali* in *sisira*, with *madhu* in *vasanta* and with *guda* in *ingrishma*. Another example of use of nutraceuticals as per season is of *Bhallataka Rasayana* which should not be consumed in summer season.
- ii. Time of consumption: e.g: *Triphala rasayana*- *haritaki* is consumed after digestion of food, *vibhitaki* is consumed before food & *amalaki* after food.
- iii. Physiological: e.g: *satavari ghrta* in lactating mother.
- iv. The target organ: e.g: *Chyavanaprasha* & *Pippali rasayana* in respiratory disorders, *Triphala churna* along with ghee improves eyesight .

The concept of *Rasayana* has much relevance in the field of Nutraceuticals. *Rasayana* helps to improve metabolic processes, which results in best possible biotransformation to form the best quality tissues (*dhatus*) & helps to prevent senility & other diseases of old age. *Rasayana* drugs are divided in to 3 categories.

- 1) *Kamyā* (for vitality, intellect etc.),
- 2) *Naimmitika* (for specific disorders) and
- 3) *Aajasrika* (general)⁵.

The concept of *Aajasrika Rasayana* deals with food products that can be consumed daily for improving the quality of life & to rejuvenate the body. Some examples of Nutraceuticals in *Ayurveda* are *Chyavanaprasha*, *Brahma Rasayana*, *Phala Ghrta*, *Shatavari Ghrta*, *Arjuna ksheerapaka*, *Lasuna ksheerapaka* etc.

Chyavanaprasha Avaleha

This is a classical *Ayurveda* preparation which consists of more than 50 herbs, *taila*, *ghrita*, *khanda sarkara* & *madhu*. It has *rasayana* as well as *rogaghna* property. The main ingredient of this formulation is *Amalaki*, which is a rich source of Vitamin C, found to possess anti-oxidant, immunomodulatory, cytoprotective & hypolipidemic activity⁶. *Chyavanaprasha* exhibited hepato-protective effect in studies and reduced postprandial glycemia & blood cholesterol levels.

PATHYA KALPANA

Ayurveda prescribes specific diet patterns in healthy & diseased conditions which are known as *Pathya*. Most of the formulations in *Pathya kalpana* have nutritional as well as

therapeutic qualities. So it can be considered in the category of Nutraceuticals. Main objective of describing this is to highlight the role of diet in maintaining health as well as treating various ailments in any individual. According to the principles of *Ayurveda*, derangement of the *agni* occurs in many diseases which is the prime reason for vitiation of *dosha*, for the formation *Ama* and malformation of *Dhatus*. Hence it is important to restore normalcy of *agni*. This objective can be attained by using a properly managed diet regimen (*pathya*) according to condition of *doshas* and type of the disease. The things opposite to these are considered are *Apathya*.

In modern dietetics, the nature of food is analyzed by the dominance of one of the following 3 broad types of the basic contents of the food as - carbohydrates, Fats & Proteins. But *Ayurveda* weighs the properties of food on its individual basis depending upon both the nature of the food and the nature of digestive capability of the patient who is going to consume that food (*Dravya and Agni*)⁷.

What is Pathya?

The word *Pathya* derives its origin from root word "*Patha*" which literally means various channels of the body & "*anapeta*" means not causing any harm to the body. So any food which is not harmful for body channels and wholesome i.e, soothing for body can be labeled as *Pathya*⁸. It obviously insists on the ideal food to be consumed to attain & sustain good health. In this way, the precisely constituted, calculated and cooked food is known as *Pathya*. *Ahaara* is said to be *Mahabheshaja* (supreme medicine) by *Acharya Kashyapa*⁹. Some important formulations of *Pathya Kalpana* are *manda*, *peya*, *vilepi*, *yavagu*, *yusha*, *krusara*, *anna*, *takra* & *dadhi kalpanas*, *mamsarasa*, *khada kambalika*, *raga shadava*¹⁰ etc.

IMPORTANCE OF PATHYA KALPANA

Pathya Kalpana is suggested in various places in *Ayurveda*. It is suggested in the *Swasthavrutta*, *Dinacharya*, *Ritucharya*, *Panchakarma* etc. Practically it is advised as a diet plan in healthy individuals to stay fit, in patients to keep their *srotas* (channels) in a healthy stage & in patients getting treated with *Panchakarma* to help their *koshta* coming back to normal. It is used in *Panchakarma* to boost the *ksheena annavaha srotas* and *purishavaha srotas* to regain the healthy stage from weakness, which happened during the process of *shodhana*. *Pathya Kalpana* is the basic but most important concept in *Ayurveda* which seems to be practical and must be practised clinically in today's era.

CONCLUSION

Nutraceuticals have proven health benefits and their consumption will keep diseases at bay and allow humans to maintain an overall good health. Herbal Nutraceutical is a powerful instrument in maintaining health and to act against nutritionally induced acute and chronic diseases, thereby promoting optimal health, longevity, and quality of life. The association of Nutraceuticals with traditional medicine is bound to bring the long lasting consumer acceptance. When supported by current modern medical research, the acceptance is whole hearted. *Pathya kalpana* covers all the nutritive values as it provides food having all the six tastes thus help in maintaining the *panchabhoutika* nature of the body. It also

makes the food pleasurable thus acting over both body and mind. So *Pathya Kalpana* should be incorporated in our daily diet regime to achieve the basic objectives of Ayurveda. Although Nutraceuticals have significant promise in the promotion of human health and disease prevention, health professionals and nutritionists, should strategically work together to plan appropriate regulation to provide the ultimate health and therapeutic benefit to mankind.

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