

NUTRACEUTICAL APPLICATIONS IN AYURVEDIC DIETETICS AND NUTRITION

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ABSTRACT

Nutraceuticals are food or part of food that provides medical or health benefits including the prevention and treatment of a disease. The term Nutraceuticals refers to the combination of nutrition as well as pharmaceuticals. This can be correlated to Ayurvedic principles of dietetics like *hita*, *satmya*, *pathya* concepts. The individualistic application of nutrition/diet is very important in Ayurveda. This includes antioxidants, digestive stimulants, and probiotics and so on. These are very important in the present scenario of socio economic status. Through Ayurveda, we can fill the gap between food and medicines. The concept of nutraceuticals is gaining more popularity more recently; its roots can be traced in Ayurvedic dietetics and nutrition apart from calorie based or nutrient based approach.

Keywords: *Nutraceuticals, pathya*

INTRODUCTION

Ayurveda, the 5000 year old health science has mentioned benefits of food for therapeutic purposes. The term nutraceuticals is applied to products that are isolated from herbal products, dietary supplements (nutrients), specific diets, and processed foods such as cereals, soups, and beverages that other than nutrition are also used as medicine. Nutraceuticals, in contrast to pharmaceuticals, are substances, which usually does not have patent protection. Both pharmaceutical and nutraceutical compounds might be used to cure or prevent diseases, but only pharmaceutical compounds have governmental sanction. Dr Stephan De Felice coined the term Nutraceuticals from “nutrition” and “pharmaceutical” in 1989. Related terms are “functional food” and “dietary supple-

ment”. Ayurvedic principles, Dietetics, nutrition, pharmaceutical preparations can also correlate with nutraceuticals in present scenario. This includes antioxidants, digestive stimulants, probiotics etc which are very important in the present scenario of socio economic status. Through ayurveda we can fill the gap between food and medicines. Ahara is indicated as best medicine as per Ayurveda which is similar to Hippocratic concepts.

Ayurveda is based on the belief that nothing is right for everyone and everything is right for someone. The levels at which an ahara becomes preventive or curative (aushadha) depends on a lot of factors like properties and qualities of ahara used, prakriti, sara and dosha of the individual etc. Although the concept of

nutraceuticals is gaining more popularity more recently, its roots can be traced to the ancient Indian system of medicine. Other divisions of ayurveda like *rasayana*, *panchakarma* also benefited from *pathya-apathya* concepts. The nutraceutical application is found in these areas are still not explored. Hence focussing more on nutraceutical applications will be beneficial for the growth of Ayurveda in this direction.

Ayurvedic approach in nutraceutics

The science of food and nutritionals in Ayurveda was so developed since Ayurveda has a unique concept in *ahara* which is not at all similar to modern view, but has a holistic approach including certain host factors, considering best in all medicines. The *pathya-pathya*, *hitha-ahitha*, *sathmya-asathmya* are based on individualistic approach. Apart from this *rasayana* is the most advanced form of preventive application specific to disease, age, climate etc which is similar to current *nutraceutic* practice. Since principles of both are complementary to each other and work together would yield better result especially in present era. Demand for quality of life has fuelled the 'nutraceutical revolution' and seeking traditional or alterna-

tive beneficial products. The association of nutraceuticals with traditional medicine brings the long-standing consumer acceptance. The classical texts of Ayurveda are filled with scattered references on the implication of food products in various diseases.

Ayurveda plays a great emphasis on the quality of nutritious food for (i) preventing the degenerative changes caused by ageing (*Rasayana*), (ii) post illness nutrition (*Balya*), (iii) enhancing the immunity (*Vyahikshamatwa*) (iv) maintaining the vitality (*Vajikarana*).

Nutraceutics and delivery systems (Ayurvedic approach)

Supplementation of nutrients which improves the quality of *ahara rasa*, improving the process of absorption in other words improving bioavailability of nutrients by handling digestive fire (*agni*), by improving proper assimilation of nutrients by cleaning the body channels (*srothoshoushathva*) and making the nutrients available for the tissue, by enhancing tissue utilization or tissue uptake of the available nutrients. This is very important for proper functioning of tissues with above four steps of circulation that leads to *dhathu upachaya*.



Advantages of nutraceutical application in Ayurveda

- Enhancement of bioavailability
- Sustained drug delivery system.
- Improved social acceptance.
- Life style disease prevention (potential nutrients, safety and therapeutic effects)

Rasayana as a nutraceutical

Many of the rasayana drugs have nutraceutical action. Rasayana prayoga in an appropriate condition will give better result since it will work in the level of dhathu. The drug amalaki rasayana is used as traditional medicine since time immemorial for their unique properties like anti-ageing etc.⁵ So we can say rasayana drugs act at the sub cellular level. This can be compared with anti oxidant, regenerative, immune-modulatory, and adptogenic actions in modern parlance.

- Chyavanprashm (for general health and prevention of respiratory disorders)
- Brahma Rasayana (for protection from mental stress)
- Narasimha rasayana (vigor and vitality)
- Phala Ghrita (for reproductive health)
- Arjuna Ksheerpaka (for cardio-protection)
- Rasona Ksheerpaka (for cardio-protection)
- Shilajathu rasayanam (for diabetes mellitus)

DISCUSSION

Among other approaches to prevent diseases, nutraceutical also plays an integral role. Preventing or retarding the onset of diseases has become a more attractive

and cost effective strategy in the medical arena. Here ayurveda provides holistic and better drug delivery system for dietary supplements and nutrients, which is proven individualistic protocol since long time. Here we can apply the nutraceutical potential of Ayurveda as preventive, palliative and health promotive measure.

Agni is responsible to change the *Panchabhautika* composition of any *Dravya*. By the *Paka* or *Pachana* process which changes the whole composition. Therefore all the principle food articles described in *Brihatrayi* are *Saagni Ahara Kalpana*.⁴ this can be better applied in the context of *samsarjanakrama*. Since, these *krama* is done to stimulate *Agni* and nourish body; the same can be used in diseases where *Agni mandata* is observed. Any type of medicine administered in body is dependent upon *Agni* for its metabolism. So nutrition in Ayurveda is strictly based on the absorption assimilation and other host factors. Ayurvedic aspect of nutrition is very comprehensive as well as holistic which are beyond the level of conventional nutritional practices. In *samsarjana karma*, Ayurveda give importance to calorie intake as well as nutrient supplementation.

TABLE NO-1: SAM SARJANA KARMA DRAVYA

<i>Peya</i>	More liquid+rice in small unit	Less carbohydrates
<i>Vilepi</i>	More rice+less liquid	More carbohydrates
<i>Akrita yusha</i>	Pulse without salt and fat	Protein(vegetable source)
<i>Krita yusha</i>	Pulse with salt and fat	Protein with fat
<i>Akrita mamsa rasa</i>	Fat present in mamsa+animal protein	Protein with fat
<i>Krita mamsa rasa</i>	Fat+animal protein+supplement fat and salt	More protein and fat

CONCLUSION

Holistic considerations and personalized dietary planning constitute the basic features of the ayurvedic concept of nutrition, which will provide optimal health and disease prevention. Nutraceuticals is a connecting link where both the system of medicine should shake their

hand with enduring hardcore research and mutual acceptance of both the systems.

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Anti-aging effect of amalaki rasayana in healthy elderly subjects.

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