

Ayurceuticals: Recent Development and Future Perspectives of Ayurveda

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Abstract: Ayurceuticals may be the quite new term for the world of Ayurveda and is a combination of Ayurveda and Nutraceuticals. Ayurvedic dietetics and nutrition are novel approach to the world. It evolved with various methods and processes as well as nutritional benefits of herbs. Rasayana is the best example of this kind; it nourishes as well as improves immunity and keep away from the diseases. So Rasayana preparations are the primitive and broad approach in the field of Nutraceuticals. The phytochemicals present in plants are bioactive compound and which are responsible for preventing disease and promoting health. In recent years these have been taken much attention in field of health care system. Many studies have been still going on for identification and isolation of the chemical components, establishment of their biological potency both by in vitro and in vivo studies. Till now study's findings suggest that phytochemicals may reduce the risk of coronary heart disease, detoxify body and neutralize free radicals, the prevention and treatment of diabetes, high blood pressure, and macular degeneration. Classical preparations Rasayana have all benefits which are promising today in phytochemicals. Present review study aims to highlight the Ayurvedic potential by the name of Ayurceuticals.

Keywords: Ayurceuticals, Rasayana, Phytochemicals, Nutraceuticals.

INTRODUCTION

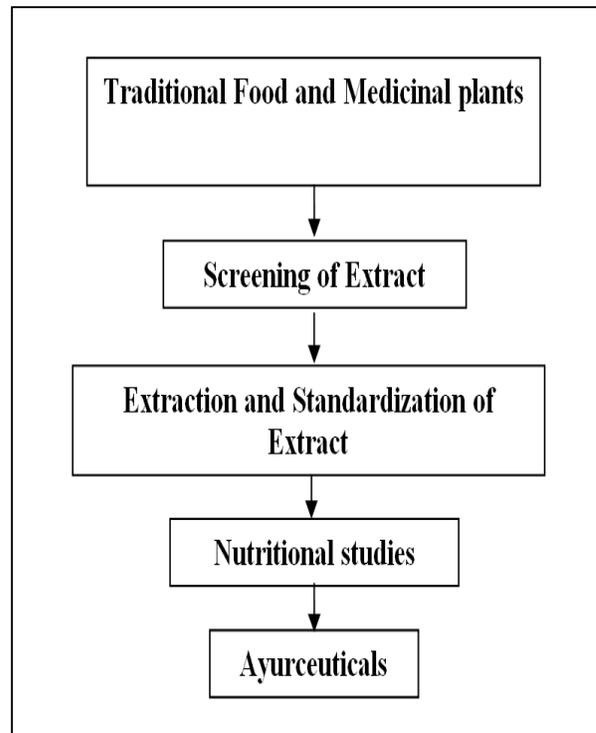
The term Ayurceuticals suggested that the combination of Ayurveda and Nutraceuticals. It may be the quite new term for the world of Ayurveda. As a holistic system of medicine, Ayurveda promotes health, wellness and longevity by its nutritional potential such as *Rasayana* (promoting longevity and vitality), *Jeevaniye* (promoting vitality), *Brihaniye* (promoting over nutrition), *Vayasthapaniye* (promoting longevity) and *Balya* (promoting strength to the body)¹. The fundamental principle of nutrition in Ayurveda is based upon the *Panchmahabhautika* theory, *Tridosha siddhanta* and *Samanya-Visesha siddhanta*. These three theories constitute the basis of sustenance of life through diet and medicine. *Ahara* (diet) *Nidra* (sleep) and *Brahmacarya* (abstinence) are recognized as the three *Upastambhas* (sub pillars) essential for the life². *Ahara* is considered as the best sustainer of life (*Annam Vrittikaranam Sreshtam*)³ and also *Mahabhaisajya*⁴. A balanced diet in Ayurveda is planned in relation to the specific known *Panchabhautik* composition and their *Tridoshik* impacts in the living body. *Acharya Charaka* said that body is the product of Food and Food is harbinger of happiness and suffering. Food, diet and dietetics have given much attention among all classical text. Food sustains the life of all living beings; and complexion, clarity, good voice, longevity, genius, happiness, satisfaction, nourishment strength and intellect are all conditioned by the food.

Ayurveda and Nutrition:

The *Panchmahabhuta* theory explains the evolution of microcosm as well macrocosm. Whole universe and its components are composed of *Panchmahabhuta*. *Sushruta* described that body as well as food are mainly constituted by five *Mahabhutas*. These *Mahabhutas* have dynamic exchange properties and it is the only way to nourishing as well therapeutic factors for the body. All the dietary articles are composed of *Panchamahabhutas* and their biological derivatives and representatives in the body are *Tridoshas* (*Vata*, *Pitta* and *Kapha*). After consuming the food and their digestion with the help of *Jatharagni* (digestive fire) and then *Bhutagni* nourishes their respective *Panchamahabhutik constituents* in the body.

A novel concept about *Pathya Aabar* (wholesome diet- nutrients suitable for an individual are called *Pathyas*) are delineated in Ayurveda. *Lolimaraja* said that “If one eats the right kind of food, what is the need of medicine. If one doesn’t eat the right kind of food, then no need of medicine”²⁵. There is also a minute attention to the *Viruddha aahara* (dietary compatibilities). There are much more considerations about the diet and nutrition in Ayurveda than other systems.

Development of Ayurceuticals:



Ayurvedic dietetics and nutrition are novel approach to the world. It evolved with various methods and processes as well as nutritional benefits of herbs. All classical text described the *kritanna varga*. Food (*Ahara*) and lifestyle (*Vihara*) significantly affect one’s overall health and the upsurge of metabolic and degenerative diseases are the result of adaptation of modern life style. Most of the incurable diseases are produced due to improper food. Intelligent and self-controlled person should consume conducive food in right quantity and at right time to prevent diseases. In this series the concept of *Rasayana* had been evolved to promote longevity and wellness.

Ayurceuticals and Rasayana:

The term Ayurceutical is a combination of Ayurveda and Neutraceuticals. Ayurveda described the *Anna* for nutrition (*Rasa pradhan*) and *Ausadha* for therapeutics (*Virya Pradhan*) but it is the physician skills that he can use *Anna* for therapeutics and *Ausadh* for nutrition. Rasayana is the best example of this kind; it nourishes as well as improves immunity and keep away from the diseases. So *Rasayana* preparations are the primitive and broad approach in the field of Neutraceuticals. The word Rasayana is composed of two words *Rasa* and *Ayana*. *Rasa* means *Rasa Dhatu* (nutritional plasma) and *Ayana* means pathway (microcirculatory channels in the body)⁶. Rasayana is one of the branches of *Ashtanga* Ayurveda (eight clinical specialities) which is not only a drug therapy but is a specialized procedure practiced in the form of rejuvenative recipes, dietary regimen and special health promoting conduct and behavior. Rasayana is the way for attaining longevity, memory, intelligence, freedom from disorder, youthfulness, excellence of lusture, complexion and voice, optimum level of physical strength and sense organs. Rasayana drugs act on work at *Dhatu* level which reflects its sub-cellular activity. It can be collectively compared with antioxidant, regenerative, immuno-modulatory and adaptogenic. Rasayana are not only helps in treating a disease but can also be helpful in preventing a disease⁷

Ayurceuticals and Phytochemicals:Table 1- Bioactive phytochemicals in medicinal plants⁸

S.N.	Classification	Main groups of compounds	Biological function
	NSA (Non-starchy Polysaccharides.)	Cellulose, hemicellulose, gums, mucilages, pectins, lignins	Water absorbing capacity, delay in nutrient absorption, binding toxins and bile acids
	Antibacterial & Antifungal	Terpenoids, alkaloids, phenolics	Inhibits micro-organisms, reduce the risk of fungal infection
	Antioxidants	Polyphenolic compounds, flavonoids, carotenoids, tocopherols, ascorbic acid	free radical quenching, inhibition of lipid peroxidation
	Anticancer	Carotenoids, polyphenols, curcumine, Flavonoids	Inhibits tumor formation, inhibited development of lung cancer, anti-metastatic activity
	Detoxifying Agents	Reductive acids, indoles, tocopherols, phenols, aromatic isothiocyanates, coumarins, flavones, carotenoids, retinoids, cyanates, phytosterols	Inhibits pro-carcinogen activation, inducers of drug binding of carcinogens, inhibitors of tumorigenesis
	Others	Alkaloids, terpenoids, volatile flavor compounds, biogenic amines	Neuropharmacological agents, anti-oxidants, cancer chemoprevention

Table 2: List of some *Rasayana* preparations

Preparations	Benefits
<i>Chyavanprasha</i>	General health and prevention of respiratory disorders
<i>Brahma Rasayana</i>	Protection from mental stress
<i>Narasimha Rasayana</i>	Vigor and vitality
<i>Phala Ghrita</i>	Reproductive health
<i>Arjuna Kshirapaka</i>	Cardio protection
<i>Rasona Kshirapaka</i>	Cardio protection
<i>Shilajatu Rasayana</i>	Diabetes mellitus
<i>Vachadi ghrit</i>	Improves memory and speech in children
<i>Brahmi ghrit</i>	Improves memory in young and old

DISCUSSION

The phytochemicals present in plants are bioactive compound and which are responsible for preventing disease and promoting health. In recent years these have been taken much attention in field of health care system. There are many studies have been still going on for identification and isolation of the chemical components, establishment of their biological potency both by in vitro and in vivo studies. Further more experimental animals, epidemiological and clinical-case control studies in man have been also carried on pharmaceutical scale. Till now study findings suggest that phytochemicals may reduce the risk of coronary heart disease by preventing the oxidation of low-density lipoprotein (LDL) cholesterol, reducing the synthesis or absorption of cholesterol, normalizing blood pressure and clotting and improving arterial elasticity⁹⁻¹⁰. Phytochemicals may detoxify body, neutralize free radicals, inhibit enzymes that activate carcinogens and activate enzymes that detoxify carcinogens.

Phytochemicals have also been reported for the prevention and treatment of diabetes, high blood pressure, and macular degeneration¹¹. Classical preparations Rasayana have all benefits which are promising today in phytochemicals. It is well understood that in primitive time technologies was not developed. So our *Acharya* have concentrated on specialized diseased conditions to develop a special Rasayana recipe. *Chyawanprash* Rasayana for complete wellness, *Brahmi* Rasayana in mental illness and dementia, *Shatavari* kalpa for galactogogues, *Asbagandha* for general debility, *Shilajatu Rasayana* for diabetes, *Vyaghri haritki awaleha* in respiratory disease and many more are in listed.

CONCLUSION

Phytochemicals are derived from plants source of and are the secondary bioactive compounds in the medicinal herbs. These are unknown in primitive time and only be expressed in the way of active potentials. Extract of medicinal herbs serve as secondary metabolites and have been used for many Rasayana preparations since *Sambita* period. Now gradually development in the field of pharmaceuticals and nutraceuticals industries, phytochemicals have been the prime choice and actively used in the nutraceuticals products. So it is the high time and need of the hour, that to save our potential of Ayurveda and Ayurceuticals. There is an urgent need of attention and requirement for the development of Ayurceuticals.

<http://www.cancer.org/eprise/main/docroot/ETO/c>

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