

## Letter to the Editor

## Health and Nutrition: A Time to Visit Ayurveda?

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## Letter to the Editor

A long with the Chinese system of medicine, Ayurveda, the science (Ved) of life (Ayur) is one of the most ancient medical systems of the human civilization. Ayurveda is a science which encompasses the fundamental laws of nature and is considered to consist almost each and every aspect of disease and its therapeutic approach. Ayurveda has advocated a comprehensive therapeutic approach. Ayurveda has advocated a comprehensive composite health care. It has eight major clinical disciplines: (i) internal medicine; (ii) toxicology; (iii) disease of supra-clavicular regions, i.e. ophthalmic and rhynolynological disease; (iv) pediatrics including obstetrics and gynecology; (v) clinical psychology and psychiatric; (vi) toxicology; (vii) *RasAyanA-Tantra* (promotive therapy including nutrition, rejuvenation and geriatrics and (viii) sexology pertaining to aphrodisiacs.

The two great exponents of Ayurveda, were Carrack (300 BCE) and Susrutu (100 BCE). Carrack along with the grammarian Panini and medieval poet Kalidas forms the triumvirate of Indian Renaissance. Susrutu is considered to be father of surgery and anatomy. Susrutu is the first and last author of Ayurveda to describe the human cadaver dissection. He had studied the embryonic development and classified and sub-classified of visceral organs. Thus he described 700 blood vessels, 500 muscles, 900 ligaments, 300 bones, 210 joints, 24 major vessels. However, his most outstanding contribution remains the description of 107 vital spot in the body called *marmans*. These *marmans* warrant care and precaution during the management of trauma and surgical procedures. The *marmans* became the focal point and basis of a system of physical therapy in the Indian State of Kerala which influenced the evolution of martial arts. Many practitioners of Ayurveda have demonstrated close conceptual similarity between the science of *marmans* in Ayurveda and acupuncture points of traditional Chinese medicines.

Both the exponents viz. Caraka and Susrutu have given vivid description of the properties of water, milk, yoghurt, butter-milk, clarified butter, oil, honey, molasses wines and liquors. The nutritive value of rice, cereals, pulses are described together with the meats of terrestrial (scatters, peckers, cave dwellers, hole dwellers, domestic and wild) animals, aquatic and swampy animals, fruits and vegetable etc.

The kitchen should be spacious, clean, airy allowing enough sun-shine during the day and food should be cooked by trustworthy

persons under overall guidance of kitchen physician (dietician). A balanced tasteful food gives rise to exhilaration, physical strength and vigor, mental competence, nourishment, energy, satisfaction and pleasure. Ayurveda plays a great deal of emphasis on leading healthy life by partaking of nutritious and wholesome diet. Such a regimen helps an individual to fulfill the cherished goal of leading a healthy life of 100 years.

To summarize, wholesome diet leads to improved nutrition which in turn triggers off a series of secondary attributes like deceleration of ageing, promotion of longevity, promotion of immunity against disease, improvement of intelligence, augmentation of memory and overall enhancement of mental competence, increased vitality and luster of the body.

In Ayurveda *rasayana* (or science of rejuvenation) is a unique concept and is one of the specialized branches of Ayurveda. The main object of *rasayana* therapy is the management of age related disorders. The principal physiological effect of *rasayanais* to improve and revitalize the physiological and endocrine functions of the body, to decelerate the ageing process and to improve body function by strengthening the immune system.

The effect of *rasayana* has three-fold dimensions, first, by directly enriching the nutritional quality of the nutrients plasma, secondary, by promoting nutrition through improvement in digestion and metabolism; and thirdly, by promoting the competence of micro-circulatory channels in the body leading to better bio-availability of nutrients to the tissue perfusion.

Both Caraka and Susrutu have described a large number of *rasayana* drugs which are used today. Initially the development of Ayurveda drug used the reductionist approach. A classical example is Reserpine isolated from *Rauwolfia serpentina* which did prove specifically effective in the treatment of hypertension but because of its severe side effects like depression and morbidity it had to be withdrawn.

Therefore, currently the holistic approach is used. The principal of this holistic approach is that it is essential for plant extracts in order to be therapeutically effective to leave all the constituents intact because the therapeutic effect is generally the result of concerted activity of several active constituents as well as the most of the accompanying substances. Even though these accompanying substances do not directly affect the therapeutic mechanism, it is reasonable to use the complex mixtures of components which might influence bioavailability and have an optimum effect on the pharmacodynamic and pharmacokinetics of the active compounds [1,2].

Majority of the Ayurveda practitioner are of the view that there is no need of drug research in Ayurveda. There is only need of standardization of existing Ayurvedic drugs.

Recent major clinical studies conducted at the Department of In dermal Medicine, Ayurveda Medical College, Banaras Hindu University, Varanasi on the patients suffering from a wide variety of

<b>Brain:</b>		
Nootropic / Psychotropic		<i>Aśvagandha</i> ( <i>Withania somnifera</i> ) <i>Brāhmī</i> ( <i>Bacopa monnieri</i> ) <i>Mandūkāpamī</i> ( <i>Centella asiatica</i> ) <i>Śankhapuspī</i> ( <i>Convolvulus pluricaulis</i> ) <i>Jatāmamsī</i> ( <i>Nardostachys jatamansi</i> ) <i>Vacā</i> ( <i>Acorus calamus</i> ) and all other drugs described in Ayurveda as <i>medhya/medhya rasāyanā</i> .
<b>Heart:</b>		
Cardioprotectives/ Cardiotonics/ Hypolipidemics/ Antiplatelet		<i>Arjuna</i> ( <i>Terminalia arjuna</i> ) <i>Guggulu</i> ( <i>Commifora mukul</i> ) <i>Puskaramūla</i> ( <i>Saussuria lappa</i> ) <i>Vacā</i> ( <i>Acorus calamus</i> ) <i>Rasona</i> ( <i>Allium sativum</i> )
<b>Liver:</b>		
Hepatoprotective/ Choleric		<i>Kutakī</i> ( <i>Picrorhiza kurroa</i> ) <i>Kālamegha</i> ( <i>Andrographis paniculata</i> ) <i>Bhūmyāmalakī</i> ( <i>Phyllanthus niruri</i> ) <i>Gudūcī</i> ( <i>Tinospora cordifolia</i> ) <i>Punamavā</i> ( <i>Boerhaavia diffusa</i> )
<b>Kidney:</b>		
Nephroprotectives/ Diuretics/ Urinary antiseptics		<i>Punarnavā</i> ( <i>Boerhaavia diffusa</i> ) <i>Goksura</i> ( <i>Tribulus terrestris</i> ) <i>Śilajātu</i> ( <i>Bitumen</i> )
<b>Stomach &amp; Duodenum:</b>		
Mucoprotective/ Antisecretory		<i>Āmalakī</i> ( <i>Emblīca officinalis</i> ) <i>Śatāvārī</i> ( <i>Asparagus racemosus</i> ) <i>Madhuyasī</i> ( <i>Glycyrrhiza glabra</i> ) <i>Bhrngarājā</i> ( <i>Eclipta alba</i> ) <i>Aśvagandhā</i> ( <i>Withania somnifera</i> ) <i>Ādraka</i> ( <i>Zingiber officinale</i> ) <i>Pippalī</i> ( <i>Piper longum</i> ) <i>Marica</i> ( <i>Piper nigrum</i> ) <i>Citraka</i> ( <i>Plumbago zeylanica</i> ) All salts
Digestive		
<b>Intestines:</b>		
Antidiarrhoeal		<i>Kutaja</i> ( <i>Hollarrhena antidysenterica</i> ) <i>Bilva</i> ( <i>Aegle marmelos</i> ) <i>Dādima</i> ( <i>Punica granatum</i> ) <i>Ahiphena</i> ( <i>Opium</i> ) <i>Triphalā</i> ( <i>Three fruits</i> ) <i>Harītakī</i> ( <i>Terminalia billirica</i> ) <i>Senna</i> ( <i>Cassia angustifolia</i> ) <i>Trivrī</i> ( <i>Operculina turpethum</i> ) <i>Eranda</i> ( <i>Ricinus communis</i> ) <i>Yastīmadhu</i> ( <i>Glycyrrhiza glabra</i> ) <i>Jayapāla</i> ( <i>Myristica fragrans</i> ) <i>Isabagola</i> ( <i>Plantago avata</i> )
Anticonstipating		
<b>Reproductive:</b>		
Aphrodisiac		<i>Kapikacchū</i> ( <i>Mucuna prurita</i> ) <i>Aśvagandhā</i> ( <i>Withania somnifera</i> ) <i>Śatāvārī</i> ( <i>Asparagus racemosus</i> )
<b>Nervine:</b>		
Nervine tonic/ Nootropic		<i>Brāhmī</i> ( <i>Bacopa monnieri</i> ) <i>Aśvagandhā</i> ( <i>Withania somnifera</i> ) <i>Balā</i> ( <i>Sida cordifolia</i> )
<b>Other Systems:</b>		
Antiallergic/ Antiasthmatic/ Anti arthritic		<i>Haridrā</i> ( <i>Curcuma longa</i> ) <i>Sīrsa</i> ( <i>Albizia lebbek</i> ) <i>Bhallātaka</i> ( <i>Semecarpus anacardium</i> ) <i>Rasona</i> ( <i>Allium sativum</i> ) <i>Kupīlu</i> ( <i>Strychnos nuxvomica</i> ) <i>Guggulu</i> ( <i>Commifora mukul</i> ) <i>Copacīnī</i> ( <i>Smilax glabra</i> )
General tonic / Antiaging		<i>Āmalakī</i> ( <i>Emblīca officinalis</i> ) <i>Aśvagandhā</i> ( <i>Withania somnifera</i> ) <i>Brāhmī</i> ( <i>Bacopa monnieri</i> )

Antidiabetic	<i>Gudūci</i> (Tinospora cordifolia) <i>Nimba</i> (Azadirachta indica) <i>Vijayasāra</i> (Pterocarpus marsupium) <i>Bilvapatra</i> (Aegle marmelos)
Antistress	<i>Aśvagandhā</i> (Withania somnifera) <i>Tulasī</i> (Ocimum sanctum)
Anticancer	<i>Bhallātaka</i> (Semecarpus anacardium) <i>Tulasī</i> (Ocimum sanctum) <i>Arka</i> (Calotropis procera) <i>Tālisā</i> (Abies webbiana) <i>Rohītaka</i> (Tecoma undulata)

disease have suggested that the following plants are effective remedies even if tested on modern medicines [3].

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