

## Medicinal Plants and Their Role in Longevity of Life

\*Dr. Kavita, \*\* Dr. J P Chaudhary, \*\*\*Dr. Jagdish Omkar, \*\*\*\*Dr O.P. Sharma

*\*PG Scholar Department of DravyaGuna, Sri ganganagar College of Ayurvedic Science &Hospital, Sriganganagar Rajasthan.*

*\*\* PG Scholar Department of Swasthavritta & Yoga, Sri ganganagar College of Ayurvedic Science &Hospital, Sriganganagar Rajasthan.*

*\*\*\*Associate Professor. Deptt. Of DravyaGuna, Sri ganganagar College of Ayurvedic Science &Hospital, Sriganganagar Rajasthan.*

*\*\*\*\* Professor & H.O.D. Deptt. Of DravyaGuna, Sri ganganagar College of Ayurvedic Science &Hospital, Sriganganagar Rajasthan.*

-----  
Date of Submission: 10-10-2020

Date of Acceptance: 29-10-2020  
-----

**ABSTRACT:-** The plants which are being used as or in place of conventional drugs or having properties like those drugs are called "Medicinal Plants". We don't know when for the 1st time they were used to treat ailments in humans or animals. Some them were used as food and they had pain relieving effects. Herbal medicine is the use of medicinal plants for prevention and treatment of diseases: it ranges from traditional and popular medicines of every country to the use of standardized and triturated herbal extracts. Herbal derived remedies need a powerful and deep assessment of their pharmacological qualities and safety that actually can be realized by new biologic technologies like pharmacogenomic, metabolomic and microarray methodology. Because of the large and growing use of natural derived substances in all over the world, explanatory and pragmatic studies are useful and should be considered complementary in the acquisition of reliable data both for health and longevity of life.

**Keywords :** herbal medicine, traditional medicine, pharmacological qualities, pragmatic studies.

### I. INTRODUCTION

World health organization (WHO) has defined medicinal plants as plants that contain properties or compounds that can be used for therapeutic purposes or those that synthesize metabolites to produce useful drugs (WHO 2008). A large proportion of such medical compounds have been discovered with the aid of ethnobotanical knowledge of their traditional use.

Recently WHO estimated that 80% of people worldwide rely on herbal medicines for some aspect of their primary health care need.

According to WHO, around 21000 plant species have the potential for being used as medicinal plant. More than 30% of entire plant species, at one time or other were used for medicinal purposes.

### Traditional system of medicine and use of medicinal plant

India has been known to be rich repository of medicinal plants. The forest in India is the principal repository of large number of medicinal and aromatic plants, which are collected as raw materials for manufacture of drugs and perfumery products.

About 8000 herbal remedies has been condifined in AYUSH system in India. Egyptian papyrus and Chinese writing describes the use of herbs. Evidence exists that Unani Hakims, Indian vaidas and European and Mediterranean cultures were using herbs for over 4000 years as medicine.

### MEDICINAL PLANT

WHO has defined medicinal plant as plants that contain properties or compounds that can be used for therapeutic purpose or those that synthesize metabolites to produce useful drugs (WHO 2008).

The pharmacological evaluation of substance from plants is an established method for the identification of leading compound which can lead to the development of novel and safe medicinal agents. Because of this resurgence of interest, the research on plants of medicinal importance is growing phenomenally at international level for the longevity of life.

### Longevity:

Longevity is used as a synonyme on for “ lifeexpectancy biologist refers average lifespan expected under ideal condition.

### What determines longevity ?

Genes determine maximum of 30% life expectancy .Longevity phenotype is resultant of a multifactorial process that permits an individual to survive ,delay or escape aging related pathologies, external stimuli ,such as diet and lifestyle.

According to Ayurveda longvity is determined by two main factor aahar and vihar which means diet and lifestyle of the individual aahar (diet) includes the main concern in the aspect of logevity which includes use of medicinal plant. Basically it can be used in two forms one on regular basis for protecting from disease to happen. Which is the prime motive of ayurveda“ स्वस्थस्य स्वास्थ्य रक्षणम्” for example use of amla ,haldi, aloe vera, brahmi in routine life.

Second condition involves use of medicinal plant in diseased condition which includes the second half of the objective of ayurveda which is “आतुरस्य विकार प्रशमनम् “ curing the disease which includes different plant based medicine in ayurveda for example plants life Arjuna, Ashawgandha ,Neem, chirayite, Flax Seed etc.

There is a special category by acharya charak of jeevaneeyagana for longevity of life which includes”जीवकर्षमको मेदा महामेदा काकोली क्षीरकाकोली मुद्रपर्णीमाषपंयो जीवंती मधुकमिनी दशमानी भवन्ति | (च.सु. 4 / 9) जिवनियानी

### Qualities action

Most of the drugs referred in the above acid group are sweet mixed bitter or astringent in taste , heavy stable slimy and soft in quality and rich with prithwi and as mahabhuta earth and water elements.

They balance vata and pitta dosha, pronotekapha dolia predominantly they are sthyanavardhakla (galactogive) promatelacation Balya (tonic) Mansavarahaka (muscle/bulk enhancer) Rasayan (rejuvenative) Kaphanissaraka (expectrorant) Vrishya (aphrodisioc )Varnya (complexion enhances).

### RASAYAN CHIKITSA

Rasayana stands as an answer to solve the problem of healthful longevity including mental

development and resistance against disease. Rasayana is a specialized type of treatment influencing the fundamental aspect of body i.e. Dhatu, Agni and Srotasa. It is a possible that different Rasayana drugs may act with predominance effect at different levels. These comprehensive effects are brought about with the help of the varied Pharmacodynamic properties of these drugs. Rasayana effect is not a specific pharmacological action but is a complex phenomenon operating through a Comprehensive mechanism involving the fundamental factors like Rasa-Samvahan, Dhatus, Agni and Srotsa. It may ultimately be leading to the achievement of the comprehensive effect as stated by Charaka “labhopayo Hi Shastanam – Rasadinam Rasayanum”

It produces the Rasayana effects mentioned in term of Vayasthapan and Ayushkara, Medhakara, Urjaskara so that Rasayana drugs acting at level of Rasa by improving Specific nutritional values of Poshak Rasa. Probably Rasayana drugs are having Madhura, Guru, Snigdha, and Sheeta properties act as Rasayana at level of Rasa by promoting the nutritional value of the Rasa which in term helps in obtaining the best qualities of Dhatus. The example of such drugs may be Shatawari, Madhuyashti, Bala, Dugdha, Ghrita etc. Rasayana drugs have a fundamental effect at level of Agni or digestion and metabolism. The Rasayana drugs possessing the Ushana, Laghu, Ruksha and Katu, Tikta, Kashaya Rasa may be acting at level of Agni, Vitalizing the organic metabolism leading to an improved structural and function pattern of Dhatus and Production of the Rasayana effects. Drugs such as Pippali, Guggulu, Rasona, Bhallataka, Rudanti mainly acts at level of Agni so improve the digestion and create excellence of Saptdhatu. The Rasayana Drugs like Vidang, Chitraka, and Haritaki are experienced to enhance Agni at level of Jaathragni. Similarly Amalaki, Amrita, Pippali, Kumari are supposed to act at level of Dhatu, Agni also causing excellence of all Dhatus.

### Benefits of medical plants in longevity of life

According to Acharya Charak, the substance which invigorate a healthy person by producing the best quality of Rasa, Rakta dhatu and other dhatus are called as Rasayana. In the Ayurvedic text books, definition of Rasayana in Ayurveda is described as: "Drug, diet and regimens which destroys the old age and disease is called Rasayana." That means by taking Rasayana we

always remain healthy and young. This did not mean that you will not die. It means that even when you are in your 80's or 90's you are able to perform your normal duties and you don't have to depend on others. According to Ayurveda, rejuvenation takes place so that a person can become healthy and explore the spiritual aspect of life. Most medicinal plants have more than single health benefits so we can use a single plant in multiple health condition person, most prescriptive drugs are designed for one and more health problems.

- There is a choice on how to use medicinal herbs, can be used in a variety of ways depending on the kind of herbs that is to be used. Some herb can be mixed with food. Some can be made into tea and there are some that are available in capsule or tablet form.
- They many have fewer side effect : while the side effect of any herbal medication depends on the drug in question, many have fewer side effects than conventional medicine.
- They cost less- the rising cost of prescription drugs have led the people to look for alternatives. While medicinal herbs may not be as strong or cost high as conventional medicine.
- It enhances the intelligence, memory power, will power, body strength, skin luster sweetness of voice and physical strength.
- It nourishes the blood, lymph, flesh, adipose tissue and semen and thus prevents chronic degenerative changes and illness. It gives freedom from chronic degenerative disorders like Arthritis and senile diseases.
- Herbal medicine is thought to improve metabolic processes, which results in the best possible biotransformation and produce the best-quality bodily tissues and eradicates senility and other diseases of old age.
- Helps to attain optimal physical strength and sharpness of sense organs.
- Herbal medicine which has marked action on reproductive organs and also nourishes Shukra dhatu
- Herbal medicine nourishes the whole body and improves natural resistance against infection by increasing Immunity power.
- Rasayana invigorates the body in general by sustaining the required balance between anabolism and catabolism.
- Rasayana Therapy which regulates the circulation of vital fluid and eliminates the waste materials, rejuvenate the nervous system and keep vigour and stamina.

- Prevents wasting of muscles, delays the ageing process, keeps strong bones, tendons etc. Prevents osteoporosis, improves whole body circulation, prevents graying of hair and provides good sleep and appetite.

## II. DISCUSSION:

Medicinal plant drugs acts as Antioxidants. Antioxidants are substances that reduce oxidative damage such as that caused by free radicals. Free radicals are highly reactive chemicals that attack molecules by capturing the electrons and thus modifying chemical structures. Well known Antioxidants include a number of enzymes and other substances such as vitamin C, Vitamin E and beta carotene (which is converted to vitamin A) are capable of counteracting the damaging effect of oxidation. Antioxidants are also commonly added to food products like vegetable oils and prepared foods, Researches show that Antioxidants are useful for protection of heart disease. This is because oxidation plays a big role in formation atherosclerotic plaque which is a main Pathological event in coronary heart disease. So there is significant role of antioxidant in coronary heart disease. Antioxidants are having role in preventing diabetes mellitus. Antioxidant rich diet may prevent Diabetes. Taking Antioxidants rich food especially vitamin E, may lower risk of Type II DM. A new study show that people whose diets had the highest levels vitamin E were 30% less likely to develop type II DM. In addition, researchers found that people who ate a lot of carotenoids, a type of antioxidant found in colorful fruits and vegetables, also had a lower risk of developing type II DM. Oxidative damage to cells is also important phenomenon in aging process. So Antioxidants are also helpful in delaying aging. Antioxidants may possibly reduce the risk of cancer and age related macular degeneration. Many Rasayana drugs like Amla, Ashwagandha acts are Antioxidants. Main constituents of Amla are vitamin C, carotene, and riboflavin. It is having a role in cellular oxidation reduction. They have also a role in collagen fibrin synthesis, helps in formation of fibrin, Absorption of iron, helping in improving health and longevity of life.

## III. CONCLUSION:

Population rise inadequate supply of drugs prohibitive cost of treatments, side effects of several synthetic drugs and development of resistance to currently used drugs for different diseases have led to increased emphasis on the use

of plant materials as a source of human elements and longevity of life.

As our lifestyle is now getting techno – savvy , we are moving away from nature. As herbs are natural products they are free from side effects, they are comparatively safe eco- friendly and locally available . Medicinal plants have wide aspect of health care , leading to improve longevity and quality of life.

#### REFERENCES:

- [1]. Vagbhata, Ashtanga Hridaya, with Vidyotini Hindi commentary of KavirajAtrideva Gupta Sutra Sthana, Chapter 1, Verse No. 5 Page.3 Chaukhambha Prakashan, Varanasi 2009.
- [2]. Agnivesha, Charak Samhita, with Charaka Chandrika Hindi commentary, by Dr.Brahmanand Tripathi and Dr. Ganga Sahay Pandey, Sutra Sthana Chapter 11, Verse No. 3. Page.223 Chaukhamba Surbharti Prakashan, 2007.
- [3]. Bhavamishra, Bhavaprakasha with 'Vidyotini' Hindi commentary, Part 2, edited by Brahmashankara Mishra, ED. 11<sup>th</sup>Chaukhambha Sanskrit Bhawan, Varanasi, 2009. Purva khanda.
- [4]. The Ayurvedic Pharmacopoeia of India, Part 1, Vol III, Govt of India, New Delhi; 2001.
- [5]. The Wealth of India-Raw Materials, Vol III, National Institute of Science Communication and Information Resources, New Delhi;1992.
- [6]. Chiappelli F Prolo P, Rosenblum M, Edgerton M, Cajulis OS. Evidence based reserch in complementary and alternative medicine II: the process of evidence based research. Evid Based Complement Alternat Med. 2006.
- [7]. Vayalil PK, Kuttan G, Kuttan R (2002). "Rasayanas: evidence for the concept of prevention of diseases". Am. J. Chin. Med.