

Role of medicinal plants in Traditional medicine system

Ayurveda:

Ayurveda is the ancient Indian system of natural and holistic medicine. When translated from Sanskrit, Ayurveda means “the science of life” (the Sanskrit root ayur means “longevity” or “life” and veda means “science”).

Ayurveda means the science of life. It is the science of life of the universe. It takes into consideration physical, psychological, philosophical, ethical, and spiritual wellbeing of people. The Ayurvedic concept originated and developed in India between 2500 and 500 BC. Ayurvedic medicine is one of the world’s oldest medical systems. It is comparable to traditional Chinese medicine. Besides India, Ayurveda is also practiced in Sri Lanka.

In India, Ayurveda medicine has used many herbs such as turmeric possibly as early as 1900 BC. Earliest Sanskrit writings such as the Rig Veda 1700-1100BC is the oldest recorded document regarding use of plants as medicine in India, and Atharva Veda (1500-1000BC) which described more plants and introduced basic concepts of ayurveda. Many other herbs and minerals used in Ayurveda were later described by ancient Indian herbalists such as Charaka and Sushruta during the 1st millennium BC. The Charaka samhita is believed to have arisen around 400-200 BCE, about 700 medicinal plants were described in this scripture. . The Sushruta Samhita another ayurvedic scripture attributed to Sushruta in the 6th century BC Sushruta Samhita primarily deals with different aspects of fundamental principles and theory of surgery. More than 100 kinds of surgical instruments including scalpels, scissors, forceps, specula etc. are described along with their use in this document. Dissection and operative procedures are explained making use of vegetables and dead animals. It contains description of about 650 drugs and discusses different aspects related to other surgery related topics such as anatomy, embryology, toxicology and therapeutics, 64 preparations from mineral sources, and 57 preparations based on animal sources.

It mainly treat based on three doshas: Vata, pitta and kapha. Ayurveda has eight ways to diagnose illness Nadi (pulse), Mootra (urine), Mala (stool), Jihva (tongue), Shabda (speech), Sparsha (touch), Druk (vision), and Aakruti

(appearance). The medicine can treat fever, cough, diarrhea, dropsy, seizures, diabetes, tumors, asthma, cancer, anemia, heart disease, leprosy, boils, skin disorders, ulcers, gout, diseases of the eye, headache, and wound.

Ayurvedic treatments include herbal medicines, dietary interventions, and massage. Ayurveda uses herbs, metals (e.g gold, lead, mercury), organic matters, and minerals. Medicinal plants are the major source of drug. The Indian subcontinent is a vast repository of medicinal plants that are used in traditional medical treatments. Plants are the primary ingredients of Ayurvedic drugs. These plant species are being explored with the modern scientific approaches for better leads in the healthcare. Herbal medicine includes herbs, herbal materials, and products.

Ayurvedic herbs are a key component of Ayurveda, the traditional practice of medicine of India. Practitioners will generally use ayurvedic herbs to "cleanse" the body, boost defense against disease, and keep the mind, body, and spirit in balance.

***Curcuma longa* (Turmeric)**

Ayurvedic name: Haridra

Turmeric is an Ayurvedic remedy used for 4,000 years.

. Following is the list of countless benefits of Turmeric:

- Provides Relief from Arthritic Pain

Anti-inflammatory properties of turmeric help in treating arthritis: osteoarthritis and rheumatoid arthritis.

- Good For Brain

Research has found that curcumin repairs the stem cells of the brain.

- Has Healing Properties

Turmeric has natural antiseptic and anti-bacterial properties. The powder can be sprinkled on the affected area to help it heal faster. Our ancestors always suggest turmeric for burn, cut or infection over a pill.

- Turmeric & Diabetes

The anti-inflammatory and antioxidant properties of curcumin have been found to delay the onset of Type 2 Diabetes in people with pre-diabetes. It further helps moderate insulin levels and boosts the effect of medications that treat diabetes.

- Helps Liver detox

Production of the vital enzymes increases after the consumption of turmeric that detoxify our blood in the liver by breaking down and reducing the toxins.

***Aloe barbadensis* (Aloe vera)**

In Sanskrit, Aloe Vera is called **Ghrita - Kumari**, which means „young girl”. This name is given to it because the Vedas believed that the plant gives the woman youth and it has a regenerating effect on the females.

According to the ancient hollistic medicine, Aloe Vera has 4 of the six Ayurvedic tastes: bitter, stiff, spicy and sweet. The taste after digestion (vipaka) is sweet, and the effect - cooling.

Benefits of Aloe Vera

Aloe Vera is a powerful Ayurvedic medicine, that is applied both internally and externally.

A great laxative

In Ayurveda, Aloe powder often is used during Virechana procedure, it is a natural method for body cleansing with the help of laxatives.

Helps the process of detoxification of the organism

Aloe Vera is used in the specialized Ayurveda therapy for removal of the „ama” (slags) from body tissues and especially from the blood.

Heals skin problems

Ayurveda recommends the healing plant for treatment of various skin diseases, such as wounds, insect stings, bruises and eczema. The antibacterial and antifungal properties of Aloe Vera helps to increase blood flow to the affected area, thus to help the healing process.

Improves the function of the digestive system

Due to the high content of enzymes, as well to the anti-inflammatory effect of some of its contents, aloe is absolutely priceless for people who have problems with the digestive system.

Aloe Vera is an excellent tonic for the liver, spleen, the reproductive and circulatory system.

The classical Ayurvedic medicine uses fermented gel of aloe to produce tonic herbal wine, to be used as medicine for the treatment of patients that have anemia, problems with the digestive system, as well to heal a variety of female reproductive problems and liver diseases.

Strengthens the immune system

Hydrates and strengthens hair and scalp

As it nourishes the hair in depth, by providing the necessary vitamins and minerals, Aloe Vera is also used in Ayurveda to nourish hair and deal with itchy scalp.

***Phyllanthus emblica* (Indian gooseberry)**

Ayurvedic name: Amalaki or Amla.

Fruits of amla tree are used in ayurvedic preparations. Amla fruit is praised as DHATRI (god of health) in Ayurveda. The ayurvedic medicinal properties of amla are as follows

Effects on Tridoshas: It alleviates tridoshas and specially normalizes pitta. Hence it is very useful in diseases which arise due to aggravation of pitta.

Effects on skin: The juice of amla fruit reduces burning sensation of skin. It strengthens the hair follicles and reduces the inflammation of scalp skin. Amla boosts immunity of skin and helps to prevent acne and pimples.

Effects on eyes: Amla fruits help to reduce burning sensation in eyes and help to maintain health of eyes.

Effects on nervous system: According to texts of ayurveda amla enhances memory power and strengthens the nervous system. It sharpens the sensitivity of sense organs.

Effects on digestive system: It normalizes digestion, reduces acidity and rejuvenates liver. It relieves constipation when taken in more quantity.

Effects on circulatory system: Amla acts as a cardiac tonic and helps in anemia

Effects on respiratory system: Clears respiratory system in infection as it reduces kapha.

Effects on reproductive system: Amla acts as aphrodisiac and increases sperm count and motility. It helps to rejuvenate male reproductive system.

Effects on urinary system : It helps to soothe inner layers of bladder and helps to reduce frequency of urination.

Siddha system of medicine

Siddha system of medicine (SSM) is one such ancient traditional system of India and practiced mostly in its southern part for treating various diseases. However, it is relatively very less known to the scientific community as compared to other popular traditional systems such as Ayurveda.

Siddha medicine is one of the two ancient traditional systems of India. First one is “Ayurveda”, which flourished in north India and became popular all over the country and also in abroad, and the second one is “Siddha”, which originated from Tamil Nadu, a south-east state of India and practiced mostly in and around areas of its origin. SSM has been in existence and is being practiced for past 2000 years ; however the printed Siddha literatures are available from 18th century onwards. Before that they were documented on palm leaves by different authors. The word

“Siddha” denotes “Siddhi” which means achievement in life arts such as philosophy, yoga, wisdom, medicine and above all the art of longevity. The persons, who obtained this Siddhi, were respectfully called “Siddhars”. Siddhars can also be called spiritual scientists of Tamil Nadu who explored and explained the reality of nature and its relationship to man by their yogic awareness and experimental findings. They postulated the concept of spiritualism for self-improvement, and the practices initiated by them came to be known as the "Siddha System". Hippocrates of Siddha medicine and also one of the greatest philosophers of India. Some of his works are still in standard books of medicine and surgery, which are in the daily use among the Siddha medical practitioners. The SSM is mainly concerned with the development of drugs, which have high potency and long life for their use in future. It also aims to activate the generation of cells and to maintain the longevity.

The resources of SSM have been categorized into three groups: plant products, inorganic substances, and animal products, which are characterized by means of taste, quality, potency, post-digestive taste, and specific action, while Ayurveda recognizes all the drugs only by quality as the main character.

Example of few plants which are used in Siddha system.

Acalypha indica (Euphorbiaceae);

Siddha name: Kuppaimeni

The Leaves, roots, stalk and flowers of *Acalypha indica* are used in SSM for its medicinal properties. The leaf powder cures respiratory diseases. Its other actions include cathartic, anthelmintic, expectorant, emetic, anodyne, hypnotic, antimicrobial and wound healing properties.

Adhatoda vasica (Acanthaceae);

Siddha name: Adathodai

The leaf extract of *Adhatoda vasica* is used in SSM to cure bronchial asthma, eosinophilia and cough. In some areas the traditional healers use the leaves of this plant orally along with the flowers of *Hibiscus rosa-sinensis* to treat asthma. The relief of bronchial obstruction by its leaf extracts may be attributed even if partially, to the presence of alkaloids. The plant also consists of anti-inflammatory,

antiulcer, hepatoprotective properties.

Calotropis gigantea (Asclepiadaceae);

Siddha name: Erukku

The flowers of *Calotropis gigantea* are used in cough, asthma, catarrh and loss of appetite. The powdered root bark is soaked in its own milky juice from which bougies are prepared and their fumes are inhaled to treat cough in SSM. Its leaf juice is used in external swellings.

Ocimum sanctum (Lamiaceae);

Siddha name: Thulasi

In SSM, the leaves of *Ocimum sanctum* are used in bronchitis, asthma, eosinophilia and chronic cough. The volatile oil from fresh leaves and fixed oil from seeds showed anti-inflammatory activity. It also has wide-ranging therapeutic applications such as in cardiopathy, haemopathy, leucoderma, fever, vomiting, hiccups, gastropathy, genitourinary disorders, ringworm, verminosis and skin diseases. It has been shown to have detoxifying activity.

Solanum nigrum (Solanaceae);

Siddha name: Manathakkali

The leaves and fruits of *Solanum nigrum* are used in asthma and bronchitis. The fresh extracts of leaves are also used for inhibiting inflammatory swellings, enlargement of liver and spleen, and in cirrhosis of liver tissue. A glycoprotein from this plant was found to inhibit the DNA binding activities. Its anti-inflammatory, anti-pyretic and antitumour, antiulcerogenic, antioxidative, cytoprotective activities have been studied recently.

Unani system of medicine

Unani medicine is one of the oldest medicine in the world. It is still practiced in all parts of the world but mostly it is practiced in India. Unani means medicines which are a symbol of life. The name is derived from the Greek word 'Ionian'.

Unani medicine an ancient form of medicine first developed by the greeks in 460BC. Unani medicine has its origin in Greece. It is believed to have been established by the great physician and philosopher- Hippocrates (460–377 BC). Galen (130–201 AD) contributed for its further development. Aristotle (384–322 BC) laid down foundation of Anatomy & physiology. Dioscorides - the renowned physician of the 1st Century AD has made significant contribution to the development of pharmacology, especially of drugs of plant origin. The next phase of development took place in Egypt and Persia.

The Arabian scholars and Islamic rulers of many Arabian countries have played great role in the development of this system. Many disciplines like chemistry, pharmaceutical procedures like distillation, sublimation, calcinations and fermentation were developed and refined by them. Avicenna (980–1037 AD) was a renowned global level scholar and philosopher. He had great role in the development of Unani medicine in the present form. His book Alqanoon or (The canon of medicine) was an internationally acclaimed book on medicine, which was taught in European countries till the 17th century. India was then introduced to unani medicine in the 13th century (1350 AD). Unani medicine is practiced in India by muslim physicians called hakim.

Unani medicine believes that diseases can be kept away by the clean and fresh water, breathing clean air and consuming fresh food. It uses different parts of herbs like seeds, berries, leaves, bark , flowers etc for medicinal purposes.

The Unani System of Medicine is a medical system that deals with the management of health and diseases. It provides preventive, promotive, curative and rehabilitative healthcare with holistic approach. It works on four Elements i.e. Air, Water, Fire and Earth; four proximate Qualites (natures) Hot, Cold, Wet and Dry described by Pythagoras, and the Hippocratic theory of four Humours - Blood , Phlegm, Yellow Bile and Black Bile. Unani physicians give prime importance to diet and the state of digestion in a person, in both health and disease. The Unani System of Medicine offers treatment of diseases related to all the systems and organs of the human body. The treatments for chronic ailments and diseases of skin, liver, musculo-skeletal and reproductive systems, immunological and lifestyle disorders have been found to be highly effective and acceptable.

Unani System of medicine is based on the established knowledge and practices all relating to promotion of positive health and prevention of diseases. Unani System emphasise the Unani emphasizes on the role of key elements air, earth, fire and water in constituting health in the human body. This system of medicine uses regimental therapy which includes processes that are believed to eliminate toxic agents and cause cleansing of the system through sweating, turkish bath, massage, purging, vomiting, exercise, leeching etc. Unani medicine also gives great importance to special diets by regulating the quality and quantity of food.

COMMONLY USED MEDICINAL PLANTS IN UNANI MEDICINE

Aloe barbadensis Uses – Arthralgia, constipation

Alpinia galanga Uses – Nervous disorders, cough, bronchial asthma

Malva sylvestris Uses – Coryza (inflammation of the mucous membrane in the nose), catarrh (excessive discharge of mucus in the nose or throat), cough, sore throat

Rauwolfia serpentina Uses – Hypertension, melancholia (severe depression), mania (mental illness)

Ruta graveolens Uses – Flatulene (accumulation of gas in the alimentary canal) , dyspepsia (indigestion),

Strychnos nux-vomica Uses – Paralysis

Solanum nigrum Uses – Hepatitis, gastritis

Viola odorata Uses – Coryza, catarrh, cough