

Tulsi: The Queen of Herbs

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ABSTRACT

Herbal plants are considered as the most significant source of medicine. These herbal plants are in practice from ancient times. Traditionally, all the parts of the plant are used for curing various diseases, tulsi is the most significant medicinal plant, mentioned in Ayurveda for its medicinal and religious properties. The root, seeds and leaves are majorly used due to its therapeutic properties. It has a wide range of action on human body, it heals many diseases chronically due to its chemical constituents and believes. It has anti-ageing, immunomodulatory properties along with antimicrobial and anti-neoplastic properties. Tulsi is reported to have properties like anti-ulcer, antioxidant, anti-inflammatory, analgesic, anti-stress, anti-asthmatic and neuro-protective activity. This drug is famous for household medication. The fresh leaves of tulsi are taken by millions of people every day. For over the centuries tulsi has been known for its remarkable healing properties. In the present study, literature review is mentioned along with its pharmacological properties and traditional uses in Ayurveda.

Keywords: Ocimum sanctum, tulsi, pharmacological activity, Ayurveda

I. INTRODUCTION

Tulsi is a sacred plant of hindu religion worshiped all over the India. Tulsi comes from the Sanskrit word which means incomparable one or matchless one. Tulsi is one of the most common herb used in Indian traditional system and also named as "holy basil" or "Queen of herbs" The scientific name of tulsi is Ocimumsanctum (Linn) which belongs to labiaceae family. The leaves, seed and root of this plant have been used in indigenous ayurvedic medicine. This small herb is found throughout India and is cultivated, worshipped in temples and houses of hindus. This is commonly known as Vishnu-Priya, tulsi in Sanskrit, kalatulsi in hindi. Numerous phytochemical constituents are isolated from this plant which are responsible for their medicinal value both in modern medication system and traditional medication system. It is

ambrosial, appetizer, helps in relieving flatulence, helps to cure mucus irritation, inducing perspiration, diuretic, expectorator, alexiteric, antihelmintic and antipyretic properties. In Ayurved, it is explained as "The elixir of life" and believed to promote longevity. Tulsi plant has a lot of significance for mankind, due to the manifold medicinal benefits it provides.

Nirukti

Tulsi-due to incomparable properties.^[2,3]

Synonymous

Tulsi, Surasa, Gramaya, Sulabha, Bhootghani, Apetarakshasi, Devdunhuvi.^[2]

Vernacular name^[1]

Sanskrit: Tulsi, Surasa, Gramaya, Sulabha, Bhootghani, Apetarakshasi, Devdunhuvi.

Hindi: Tulsi

Bengali: Tulasi

Marathi: Tulasi

Gujrati: Tulasi

Tamil: Tulasi

Telugu: Tulasi

Kannada: Sri Tulsi

Malayalam: Mittbu

English: Holy Basil, Sacred Basil

Parts used^[1]

Leaves, flower, seed, root

RasPanchak^[1]

Guna: Laghu, Ruksh

Ras: Katu, Tikta

Vipaka: Katu

Veerya: Ushnna

Karam: Kapha-vaatShamak

Dosage^[1]

Root extract - 50-100 ml

BeejaChuran - 3-6 gm

Swaras - 10-20ml

Samanyakaram^[1]

Vedanahara, shothhar, deepana, hridya, mutral, shukral, krimighana, kasahara, shawashara, raktshodhak

Taxonomy^[5]

Kingdom - Plantae
 Division - Magnoliophyta
 Class - Magnoliopsida
 Order - Lamiales
 Genus - Ocimum
 Species - Sanctum

Botanical description^[5]

It is erect, branched fragmented shrub with the height of about 30-60 cm when mature. Its leaves are simple, aromatic, branched, opposite, obtuse, elliptical and have dentate margins, they are up to 5 cm long. Flowers are elongate raceme in close whorls and purple in colour. Seeds are radish

yellow and fruits are small. It is planted after rainy season and harvested after few months.

Habitat^[1]

It is found throughout India. In himalaya's it is found upto 6000 feet. Due to religious believes it is presents around the temple and around places of worship.^[1]

Types of tulsi^[1]

Two types of tulsi are found

- Shvettulsi – Leaves are green in colour and branches white in colour
- Krishantulsi – Leaves are purple in colour. Due to its properties, krishantulsi is the best.

Phytochemical properties^[1]

Fixed oil	Linoleic acid, Linolenic acid, Oleic acid, Palmitic acid, Stearic acid	Seeds
Essential oil	Aromadendrene oxide, Benzaldehyde, Borneol, Bornyl acetate, Camphor, Caryophyllene oxide, cis- α -Terpineol, Cubenol, Cardinene, D-Limonene, Eicosane, Eucalyptol, Eugenol, Farnesene, Farnesol, Furaldehyde, Germacrene, Heptanol, Humulene, Limonene, n-butylbenzoate, Ocimene, Oleic acid, Sabinene, Selinene, Phytol, Veridifloro, α -Camphene, α -Myrcene, α -Pinene, β -Pinene, α -Thujene, β -Guaiene, β -Gurjunene, methyl chavicol and linalool.	Leaves
Mineral Contents	Vitamin C, Vitamin A, Calcium, Phosphours, Chromium, Copper, Zinc, Iron	Whole Plant
Alcoholic Extract	Aesculectin, Aesculin, Apgenin, Caffeic acid, Chlorogenic Acid, Circineol, Gallic Acid, Galuteolin, Isorientin, Isovitexin, Luteolin, Molludistin, Orientin, Procatechuic acid, Stigmsterol, Urosolic acid, Vallinin, Viceni, Vitexin, Vllinin acid	Leaves/ Aerial Parts

Pharmacological action^[2]

Activity	Effect
Antioxidant	Polyphenol Rosmarinic acid is present in the Tulsi acts as anti-oxidant. It is safeguard of the cells of human body from breaking due to the resistance of "free radicals". More oxidation in the body also had done the cell damage. This acid helps to decreases the development of excess oxidation.
Anti-bacterial	Carvacrol/terpene anti-bacterial chemicals is there in the tulsi. Sesquiterpene B-caryophyllene also a anti-bacterial agent. It helps to prevent the human body from Bacterium which may cause the various diseases
Anti-inflammatory	Rosmarinic acid present in tulsi shows a anti-inflammatory effect and anti-oxidant.

Adaptogenic	Tulsi is a good and rich source of Rasayana properties which helps to cure the common mood changing activity of body and shows the mental calm and clarity. Eugenol and caryophyllene are the mainly very important Rasayana properties present in the tulsi.
Immuno-modulator	Tulsi have outstanding immune-enhancing functions that build the body against unfamiliar elements like bacteria, viruses, microbes, allergens etc. Thus, it helps to maintain the balance in the body.
Antimicrobial effects	Essential oil present in it has ant-bacterial, antiseptic and anti-viral properties. It inhibits the growth of E. coli, B. anthracis, M. tuberculosis etc. Extract considerably cut down the cause of diseases, scientific indications and the bio-chemical frame work in sufferer with any kind of viral infections.
Anti-diabetic effect	The result shows 17.6% decrease in without meal blood sugar and 7.3% decrease in post-prandial blood sugar on treating with this drug as compare to the blood sugar levels while treating with placebo.
Antifertility effect	Ursolic acid has been investigated to own anti-fertility movement in animals. This result have been credited to its anti-estrogenic outcome which may be dependable for spermatogenesis in gents and non dependable effect on implantation of ovum in ladies.

Important formulation^[4]

Muktadimahajana

Therapeutic uses^[5]

- Tulsi has anti-inflammatory properties as it is undermined vata. So as external application on swollen area helps to reduce swelling and pain.
- Tulsi cures many skin disorders. It is efficient in skin rashes, insect bites and itching. Trees of this plant are effectively used in ring worm infection.
- Fresh juice of Tulsi leaves is employed in nasya karma. This technique helps to ease headache and diseases of head and neck. Tulsi leaves act as nerving tonic.
- Extract of Tulsi leaves is used to reduce acne, pimples and scars.
- Tulsi is valuable in indigestion, intestinal parasites and constipation.
- Trapled leaves of Tulsi are extremely efficient in fever, cough, bronchitis and other medicinal problem of lungs.
- Tulsi is used as a cardiac tonic and purifies blood
- Seeds of tulsi are efficient in impulsive ejaculation and act as mild aphrodisiac.

Health benefits of tulsi in daily life

The tulsi plant has many medicinal properties. The leaves are nervine tonic and enhances memory. Leaves promote the removal of catarrhal matter and phlegm from the bronchial tube. The leaves strengthen the stomach and induce copious perspiration. The seed of the plant are mucilaginous.

- Fever and common cold.

The leaves are used in many type of fever. During rainy season, when malaria and dengue fever are widely prevalent, tender leaves boiled with tea act as preventive against these diseases. In case of acute fevers, a decoction of the leaves boiled with powdered cardamom in half liter of water and mixed with sugar and milk brings down the temperature.

- Coughs

Tulsi is an important constituent of many ayurvedic cough syrups and expectorants. It helps to release mucus in bronchitis and asthma. Chewing of Tulsi leaves relieves cold and flu.

- Sore Throat

Water boiled with basil leaves can be given to a patient with sore throat. This extract can be used as a gargle.

- Respiratory disorder

Tulsi is very good herb to cure asthma and other shwasrog. Kwath of tulsi leaves with ginger and honey is an effective home remedies for respiratory disorder. This kwath along with cloves and lavana gives immediate relief in case of influenza.

- Renal Stone

In case of renal stone the juice of tulsi leaves and honey, if taken regularly for 6 month it will expell the stone via the urinary tract, Tulsi has strengthening effect on the kidney.

- Heart Disease

Tulsi is beneficial effect in cardiac disease and cure the weakness of the heart. It reduces the level of blood cholesterol.

- Children Diseases

Common diseases of children like cough, cold, fever, diarrhea and vomiting can be cured by taking juice of tulsi leaves. If pustules of chicken pox delay their appearance, tulsi leaves taken with kesar will hasten them.

- Stress

Tulsi leaves act as an stress booster agent.

- Mouth infection

The leaves are effective for the ulcer and infection in the mouth. Chewing of the leaves cure these condition.

- Insect bites

The herb is a prophylactic or preventive and curative for insect stings or bites. A tea spoonful of the juice of the leaves is taken and is repeated after a few hours. Kalak of fresh roots is used in case of insect bites.

- Skin disorder

Application of tulsi juice can helps to treat the fungal infection and other skin disorders.

II. CONCLUSION

Herbal plants are used in India for treating and curing various diseases, because of their high value. Tulsi is considered a holy plant and is used in Ayurveda, siddha, unani medicinal systems. After rigorous research it has been proved and certified that it is safe to consume tulsi in any form. It is considered as India's queen of herbs. Tulsi is grown in all Indian homes, it has got medicinal properties

as well as cosmetic properties. The vast survey of literature showed that *Ocimum sanctum* has a huge spectrum of pharmacological activities. It has an esteemed status in herbs with diverse biological potentials and has a great scope for further new ara of investigations. Traditionally crude extracts of various plants have been used for their anti-diabetic, anti-oxidant, anti-stress, anti-hypolipidimic and anti-bacterial properties.^[6,8]

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