



TRADITION TO TREATMENT: EXPLORING THE MEDICINAL POTENTIAL OF TULSI (*Ocimum sanctum*)

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INTRODUCTION:

The use of plants as sources of medicines are human substance has been in vogue since antiquity. According to a survey of World Health Organization (WHO), the practitioners of traditional system of medicine treat about 80% of patients in India, 85% in Burma and 90% in Bangladesh. India harbours about 15 percent (3000-3500) medicinal plants out of 20000 medicinal plants of the world. The medicinal use of plants is very old. The writings indicate that therapeutic use of plants is as old as 4000–5000 B.C. Large numbers of plants are utilized in various systems of medicine practiced in India and local health traditions for the treatment of human diseases since time immemorial (Prakash and Gupta, 2005). Most of these medicinal plants have been identified and their uses are well documented by different authors (Jain, 1991). Plants are of the important sources of medicine & a large numbers of drugs in use are derived from plants. The therapeutic uses of plant are safe, economical & effective as their ease of availability. The plants of the genus *Ocimum*, which are members of the Lamiaceae family, are very significant due to their potential as medicinal plants. Tulsi is a Sanskrit word which means “the incomparable one” and has a very special place in the Hindu culture. It is revered, found in most Indian homes, and its mythology has shaped Indian culture for generations. botanically known as *Ocimum sanctum*, but commonly referred to as Holy Basil in English. Tulsi is often referred to as a "Solution of Life" in the Ayurvedic context due to its healing properties and ability to address a variety of common health issues. Tulsi leaf separates are described as a remedy for pyrexia, illness, and bronchitis in the Indian Materia Medica. It is thought to be a common plant in India. It is an erect, much stretched sub bush 30-60cm tall with furry stems and basic

inverse green leaves that are unequivocally scented. Tulsi assumes a crucial job in our regular daily existence and is supposed to be the sovereign of natural plants. It is the most wellknown family plant in India and it is hallowed in Hindu custom. Numerous Hindu legends clarify the significance, properties and employments of tulsi. It is ordinarily developed in gardens and in the outskirts of sanctuaries. it has an impactful taste and fragrant smell. It is the main plant that can retain carbon dioxide for a mind-blowing duration. It discharges the oxygen in the early morning which is useful for the individuals in breathing disorders. Tulsi plant has a great deal of essentialness for humankind, because of the complex restorative advantages it gives. Tulsi leaves are broadly utilized in the readiness of Ayurvedic prescriptions. It is known to advance the life span of life. The extricates acquired from the plant are widely brought to use for relieving different illnesses, for example, the basic cold, irritation, intestinal sickness, coronary illness, migraines, stomach issue, kidney stones, heart issue, and some more. Although Tulsi has long been used by Indian traditional healers to treat a wide range of illnesses, little is known about the plant's mode of action, and there isn't a logical way to combine this age-old practice with contemporary medicine. Indian scientists and researchers have conducted a number of studies over the past few decades to propose the function of essential oils and eugenol in the medicinal potential of *Ocimum sanctum* L. Eugenol is a phenolic compound and major constituent of essential oils extracted from different parts of Tulsi plant. The therapeutic potential of Tulsi has been established on the basis of several pharmacological studies carried out with eugenol and steam distilled, petroleum ether and benzene extracts of different parts of Tulsi plant.

Table 1: Synonyms of tulsi in Indian Languages

Sr.no	Name	Language	Region/state
1	Tuloxi, Tulasii.	Assamese	Assam, North-East india
2	Tulsi, Kalotulsi, Kural	Bengali	West Bengal
3	Tulsi, Niyan Posh	Dogri	Himachal Pradesh
4	Sabje, Talasi	Gujarati	Gujarat
5	Karitulasi, Tulasiya	Kannada	Karnataka
6	Pachcha, Kunnakam	Malayalam	Kerala

7	Mayangton, Naoshek lei	Manipuri	North-esatern region
8	Sabja, Tulasa	Marathi	Maharashtra
9	Dhala tulasi	Oriya	Orissa
10	Tulsi	Punjabi	Punjab
11	Ajaka,	Sanskriti	India , Nepal
12	Tiruttizhai	Tamil	Tamilnadu
13	Oddhi	Telugu	Andhra Pradesh
14	Besil, Jangali tulsi	Hindi	India

PHYTOCONSTITUENTS:

The leaves of tulsi contain 0.7% volatile oil comprising about 71% eugenol and 20% methyl eugenol. The oil also contains carvacrol and sesquiterpine hydrocarbon caryophyllene. Fresh leaves and stem of OS extract yielded some phenolic compounds (antioxidants) such as cirsilineol, circimaritin, isothymusin, apigenin and rosameric acid, and appreciable quantities of eugenol. Ursolic acid, apigenin, luteolin, apigenin-7-O-glucuronide, luteolin-7-O glucuronide, orientin and molludistin have also been isolated from the leaf extract (Nair *et al.*, 1982).



POTENTIAL MEDICINAL PROPERTIES OF TULSI:

According to Organic India, an organization dedicated to organic agriculture and sustainable development, one of the qualities that make the Tulsi plant such a potent medicinal herb is its ability to reduce stress. Tulsi is abundant in essential oils and antioxidants, which are tremendously effective in reducing the effect of stress. on the body. It strengthens the heart. It acts as an appetizer and promotes digestion too. It facilitates the secretion of digestive

enzymes and prevents flatulence. Having detoxifying properties the Tulsi purifies blood of any toxins that might be present in it. Tulsi may well provide protection from radiation poisoning. It has also been indicated that Tulsi possesses anti cancerous properties. In addition to its religious importance, this herb has significant medical value and is a key component of Ayurvedic medicine. Known for its potent scent and sharp flavour, tulsi is considered "the elixir of life" because to its ability to extend life. In modern medicine there has been research indicating Tulsi might potentially be an effective treatment for conditions like ulcers, high cholesterol, Type 2 diabetes, obesity and compromised/suppressed immune systems (from conditions like cancers and AIDS). Sidha, Unani and Ayurvedic medicine use tulsi to treat a wide variety of skin conditions, fevers, coughs and internal ailments. Ayurvedic medicine treats bronchitis with a liquid tonic made from tulsi leaves, which Indians mix with cardamom or lemon juice.

HEALTH BENEFITS OF TULSI IN OUR DAILY LIFE:

The tulsi plant has many medicinal properties. The leaves are a nerve tonic and also sharpen memory. They promote the removal of the 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 of basil are specific for many fevers. During the rainy season, when malaria and dengue fever are widely prevalent, tender leaves, boiled with tea, act as preventive against these diseases. The juice of tulsi leaves can be used to bring down fever. Extract of tulsi leaves in fresh water should be given every 2-3hrs (Kothari *et.al*, 2008). Every part of the plant has been shown to provide protection against a range of illnesses; the leaves' aqueous and alcoholic extracts have a variety of pharmacological properties, including anti-inflammatory, antipyretic, analgesic, antiasthmatic, antiemetic, antidiabetic, hepatoprotective, hypotensive, hypolipidemic, and antistress properties. Additionally, the plant's oil, which is widely utilized in the pharmaceutical sector mostly for skin cream preparations, is obtained by distilling the leaves and is believed to have antibacterial, antioxidant, and anti-inflammatory effects.



RESPIRATORY DISORDERS:

Tulsi is an important constituent of many Ayurvedic cough syrups and expectorants. It helps to mobilize mucus in bronchitis and asthma. Chewing tulsi leaves relieves cold and flu (Staples *et.al*, 1999). A decoction of the leaves, with honey and ginger is an effective remedy for bronchitis, asthma, influenza, cough and cold. A decoction of the leaves, cloves and common salt also gives immediate relief in case of influenza.

KIDNEY STONE:

Basil has strengthening effect on the kidney. In case of renal stone the juice of basil leaves and honey, if taken regularly for 6 months it will expel them via the urinary tract.

STRESS AND HEADACHES:

Basil leaves are considered an anti-stress agent, or "adaptogen." According to recent research, the leaves provide a considerable level of stress protection. To reduce stress, even healthy people should chew 12 basil leaves twice a day. It helps avoid certain common elements and purifies blood. A effective headache medication is made from basil. For the treatment of this disease, a leaf decoction may be administered. Sandalwood paste combined with mashed leaves can also be applied to the forehead to relieve headaches, reduce heat, and promote general coolness.

MOUTH INFECTIONS:

The leaves are quite effective for the ulcer and infections in the mouth. A few leaves chewed will cure these conditions.

TEETH DISORDER:

The herb is useful in teeth disorders. Its leaves, dried in the sun and powdered, can be used for brushing teeth. It can also be mixed with mustered oil to make a paste and used as toothpaste. This is very good for maintaining dental health, counteracting bad breath and for massaging the gums. It is also useful in pyorrhoea and other teeth disorders

ANTI-DIABETIC ACTIVITY:

When *O. sanctum* extract was given orally to normal, glucose-fed hyperglycemic, and streptozotocin-induced diabetic rats, blood sugar levels significantly decreased. Fasting and postprandial blood glucose levels significantly decreased by 17.6% and 7.3%, respectively, according to a randomized, placebo-controlled, cross-over single-blind human experiment. The trend in urine glucose levels was similar. Additionally, OS has aldose reductase activity, which may lessen diabetic consequences including cataracts and retinopathy (Halder *et al.*, 2003). A combination of Tulsi and Neem extracts has shown to lower the sugar levels in humans.

CONCLUSION:

Tulsi is the herb that fixes the humankind from all chances normally in the present shallow not very great way of life. It is considered as India's sovereign of herbs. They are to a great extent utilized in ayurvedic medicines. It has restorative properties just as corrective properties. Tulsi is developed in practically all Indian homes. It has been adored in almost all ancient ayurvedic texts for its extraordinary medicinal properties. It is pungent and bitter in taste and hot, light and dry in effect. Its seeds are considered to be cold in effect. Tulsi has a wide variety of biological and pharmacological activities such as antibacterial, antiviral, antifungal, antiprotozoal, antimalarial, anthelmintic, antidiarrhoeal, analgesic, antipyretic, antiinflammatory, antiallergic, antithyroidic, antioxidant, anticancer, chemopreventive, radioprotective, immunomodulatory. Several medicinal properties have been attributed to the plant not only in Ayurveda and Siddha but also in Greek, Roman and Unani.

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