



## MEDICINAL QUEEN HERB OF AYURVEDA: TULSI (HOLY BASIL)

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### ABSTRACT:

*Tulsi* are used for thousands of years in Indian culture for its remarkable healing properties. Importance of *Tulsi* is mentioned in ancient Ayurveda text book. Holy basil is highly versatile in properties and uses for body and mind. Indian have always considered the plant sacred because *Tulsi* is the sacred plant dearer to lord *Vishnu*. According to Ayurveda, the *Tulsi* plant is the queen of all plants. *Tulsi* are symbolizes for purity. It is considered as holy plant in the Indian subcontinent. The bushy plant of *Tulsi* has a unique fragrance and distinct taste. The *Tulsi* plant is a staple in mostly households and also medicinal herb is potent. For over the centuries *Tulsi* (the queen herb) has been known for own remarkable curative properties. Modern scientific research offers impressive evidence that *Tulsi* reduces stress, enhances stamina, relieves inflammation, lowers cholesterol, eliminates toxins, protects against radiation, prevents gastric ulcers, lowers fevers, improves digestion and provides a rich supply of antioxidants and other nutrients. *Tulsi* is especially effective in supporting the heart, blood vessels, liver and lungs and also regulates blood pressure and blood sugar. *Tulsi* improves the body's overall defense mechanism including its ability to fight viral diseases. *Tulsi* is such a potent herb that it positively impacts the entire human body. The herb not only heals the body but also replenishes the soul of the person.

**Keyword-** Holy Basil, Queen of all plants, Antioxidant, Medicinal herb, *Tulsi*.

## INTRODUCTION

In Hindu mythology, *Tulsi* is regarded as a living gateway between heaven and earth and believed to be a manifestation of the divine within the plant kingdom. In the ancient Vedic *Bhagavata Purana* text, *Tulsi*, called “Queen of Herbs,” is noted as the plant embodiment of Lakshmi, wife of Vishnu and the goddess of wealth and generosity.<sup>[1]</sup> *Tulsi* has been used for thousands of years in Ayurveda to support a healthy mind, body and spirit. The *Tulsi* herb is a natural way to treat and prevent various diseases. The therapeutic property of *Tulsi* has found recognition in its ability to relax the mind and body. It's not just in only India that holy *Tulsi* significant. As such *Tulsi* traveled west along the early trade routes from Asia to Europe, it became known to Christians as “sacred” or “holy” basil and uses in rituals. Across cultures, *Tulsi* is a symbol of purity and used for a range of physical, mental and spiritual purposes. It is used in Ayurveda & traditional medicine for immune and respiratory support, kidney support, heart health, oral health, eye health and much more. The predominant cause of global morbidity and mortality is lifestyle-related chronic diseases, many of which can be addressed through Ayurveda with its focus on healthy lifestyle practices and regular consumption of adaptogenic herbs. Most of *ocimum sanctum* is common and one can find them even in the house of people. Because amazing number of health benefits.

## AIMS:

- To compile and critically analyze the literary and research data of Tulsi

**METHODS:** The literature search was done using key word Tulsi, Holy basil, *Ocimum Sanctum*, *Ocimum Bascilicum*, *Ocimum Gratissimum* in Google scholar, Pubmed databases.

## LITERATURE REVIEW

“*Tulsi*” in the Sanskrit & Hindi and “Indian Basil/ Holy Basil/ Sacred Basil” English language is the name of a plant identified with *Ocimum sanctum* from the Lamiaceae (Mint) family.<sup>[2]</sup> The name ‘*Tulsi* in Sanskrit means ‘**the incomparable one**’. *Tulsi* synonyms are *surasa*, *Sulaghni*, *Sulabha*, *pavani*, *gouri*, *Apetaraksasi*, *Gramya*, *Bahumanjari*, *Vishnuvallabha*, *shritulsi*,<sup>[3]</sup> etc. *Tulsi* is also known as “the elixir of life”.<sup>[4]</sup>

In *Atharvaveda* and *Sankara Dharmasutra* are mentioning about *Tulsi* plant. However, *Sursa* is delineated as a forbidden leafy vegetable in *Vishnu Dharamsutra*.<sup>[5]</sup> It is quite interesting in that *brahtrayi* not used the term *tulsi* to indicate it. Its synonym *Sursa* is mainly used in *Susrut samhita* and *Apetaraksasi* synonym in *Charaka Samhita*. *Achary Charak* included *Tulsi* under the name *sursa* in the *svasahara* group.<sup>[6]</sup> Different parts of *Tulsi* plant are used in Ayurveda Medicine for prevention and cure of many illnesses as well as amazing number of health benefits. *Tulsi* is used in *visha chikitsa* also.<sup>[7]</sup>

According to *Aachrya Susrut Tulsi* described two type *Surasa* & *Swet Surasa*<sup>[8]</sup> and *Aachrya Bhavamisra* quoted *Tulsi* two varieties *Sukla Tulsi* & *Krsna Tulsi*.<sup>[9]</sup> But presently *Tulsi* are mainly three types-

1. *Rama Tulsi* or *Sukla Tulsi* - (*Ocimum Gratissimum*)

2. *Shyama Tulsi* or *Krsna Tulsi*- (*Ocimum Sanctum*)

3. *Vana Tulsi* - (*Ocimum Bascilicum*)

#### Scientific Plant classification-<sup>[10]</sup>

Kingdom: Plantae

Division:- Magnoliophyta

Class:- Magnoliopsida

Order:- Lamiales

Family:- Lamiaceae

Genus:- *Ocimum*

Species:- *Ocimum tenuiflorum*

Botanical Name: *Ocimum tenuiflorum* / *Ocimum Scantum*

#### Botanical description <sup>[11]</sup>

*Ocimum sanctum (Tulsi)* is an erect, much branched sub-shrub 30-60 cm tall, with simple opposite green or purple leaves [Figure 1] that are strongly scented and hairy stems. **Leaves** have petiole and are oblong or ovate-oblong, obtuse or acute, entire or sub serrate up to 5 cm long, usually somewhat toothed. **Flowers** are purplish in elongate racemes in close whorls and very small, borne in terminal. [Figure 2] **Fruits** are sub-globose or broadly oblong nutlets. Flowers and fruits are almost throughout the year (mainly during September-February). *Tulsi* is native throughout India and

the world tropics. It is cultivated for religious and medicinal purposes & for its essential oil.



Figure 1 *Ocimum sanctum (Tulsi)*



Figure 2 Flowers in elongate racemes in close whorls (*Tulsi*)

#### *Tulsi*: A Plant from Genus *Ocimum*

Among the plants known for medicinal value, the plants of genus *Ocimum* belonging to family Labiate are very important for their therapeutic potentials. *Ocimum sanctum* L (*Tulsi*), *O. gratissimum* (*Ram Tulsi*), *O. canum* (*Dulal Tulsi*), *O. bascilicum* (*Van Tulsi*), *O. americanum*, *O. kilimandschricum*, *O. camphora* and *O. micranthum* are examples of

known important species of genus *Ocimum* that grow in different parts of the world and are known to have medicinal properties.<sup>[12-13]</sup>

#### **Chemical composition & nutritional value-**

The chemical constituents of *Tulsi* are highly complex, containing many nutrients and other biologically active compounds.<sup>[14]</sup> The leaf volatile oil contains eugenol, euginal (also called eugenic acid), urosolic acid, carvacrol, camphor, linalool, limatrol, caryophyllene, methyl carvicol (also called Estrago)<sup>[15]</sup> and while the seed volatile oil have fatty acids and sitosterol; in addition, the seed mucilage contains some levels of sugars and the anthocyanins are present in green leaves.

*Tulsi* leaves are rich in vitamins A, C, K and minerals like calcium, magnesium, phosphorus, iron, zinc, potassium as well as chlorophyll and found many other phytonutrients. It also has a good amount of protein and fiber.<sup>[16]</sup>

#### **Properties-**<sup>[17]</sup>

**Rasa-** *Katu, Tikta*      **Guna-** *Laghu, Ruksha*

**Virya-** *Ushna*      **Vipaka-** *Katu*

**Prabhav-** *Kapha vatahara, Dipana, Krimighan, Putigandhahara.*

**Part used-** Leaf, Root, Seed, or *panchaang*

#### **Medicinal uses of *Tulsi* (*ocimum sanctum*)**

The *Tulsi* herb is a natural way to treat and prevent various diseases. It is such a potent herb that it positively impacts the entire human body. The herb not only heals the body but also replenishes the soul of the person. *Tulsi* contains hundreds of beneficial compound

known as phytochemicals, working these compounds possess strong antioxidant; antibacterial, antiviral, immune modulator etc. properties promote general health. As well as support the body's natural defense against stress & disease.

#### **Antioxidant**<sup>[18]</sup>

*Tulsi* is rich in an antioxidant and to guard against free radicals & protect from damage excess oxidation. Regular consumption of *Tulsi* tea with the regular practice of *yoga* is nourishing the body -- mind -- spirit while fostering a sense of relaxation and wellbeing.

#### **Promotes healthy metabolism**<sup>[19]</sup>

Modern research has revealed that *Tulsi* has anti-bacterial, anti-viral and anti-fungal activities against many pathogens responsible for human infections. *Tulsi* has also been shown to boost defenses against infective threats by enhancing immune responses in non-stressed, stressed and healthy humans.

#### **Anthelmintic activity**<sup>[20, 21]</sup>

*Ocimum sanctum* Linn known as *Tulsi* in India is a sacred plant for Hindus known from centuries and being used in *Ayurveda* for its varied healing properties belonging to the Labiateae family. In vitro antimicrobial studies reveal that the ursolic acid was potentially active against microbial species and exhibit greater biocidal effect as compared to ligand fragments. This study shows the potent anthelmintic as well as antibacterial activity of ursolic acid that good in their action against the worms. Because *Tulsi* leaves compound ursolic

acid have potential to paralyze and kill the parasitic worms.

#### **Anti-analgesic** <sup>[22]</sup>

*Tulsi* plant has many medicinal properties. The leaves are specific for many fevers with also a nerve tonic and sharpen memory. During rainy season, when malaria and dengue fever are widely prevalent, tender leaves boiled with tea act as preventive against these disease. The juice of *Tulsi* leaves can be used to bring down the fever.

#### **Immune modulatory property** <sup>[23]</sup>

Traditionally the aqueous and alcoholic extracts as well as seed oil of *Tulsi* is report to modulate the immune response. *Tulsi* is balance and improves of the body fighting antigens causing disease such as allergens, bacteria, virus etc. and maintaining health.

#### **Bronchodilator property** <sup>[24]</sup>

*Tulsi* is useful in the treatment of respiratory system disorder. *Tulsi* along with ginger and honey remedy can cure cough, asthma and provide quick relief from the cold. The *Tulsi* decoction, along with salts and cloves, bring relief from a cold, influenza and clears the bronchial tube, ensuring easy and seamless breathing.

#### **Cardiac activity** <sup>[25]</sup>

The *Tulsi* help in treating and preventing cardiac diseases. This herb heart disease by lowering cholesterol levels in the blood, thus preventing ischemia. *Tulsi* also helps in platelet aggregation and prevents the risk of pulmonary hypertension. It lowers the lipid content in the

blood, thus reducing the chances of stroke. The powerful antioxidant content of *Tulsi* keeps your heart healthy with blood pressure normal.

#### **Anti-diabetic property** <sup>[26]</sup>

*Tulsi* also extend to its hypoglycemic effects as it helps to lower blood sugar. The *Tulsi* leaves serve as an adjunct to diabetes medications and diets. According to studies, *Tulsi* leaves have high antioxidant content. It also has an amalgamation of essential oils that helps the pancreas. The components of the *Tulsi* leaf aid the production and release of Beta cells in the pancreas. *Tulsi* regulate the beta cells keeps insulin production in check. It is a great natural solution for diabetic people.

#### **Gastro protective/ anti-ulcer property** <sup>[27]</sup>

*Tulsi* has proved to be an infallible remedy for poor digestion, lack of appetite, constipation, flatulence, acidity and other disorders of the digestive tract. Regular use of *Tulsi* root powdered enfolded in betel leaves stop the bleeding of the internal lining of the stomach.

#### **Wound healing property** <sup>[28]</sup>

Holy basil has been shown to have antioxidant properties, which may be responsible and favorable for faster wound healing. The ability to do so lies in its antibacterial and antifungal properties that reduce inflammation and speed up the healing of wounds. The analgesic properties of the *Tulsi* plant make it ideal for fighting any infection. Therefore, the ways to reap the benefits of *Tulsi*

to cure infections are limitless. It is a good natural cure.

#### **Anti-cancerous property** <sup>[29]</sup>

*Tulsi* herb is highly potent in destroying the pre-cancerous lesions in the cells. *Tulsi* repairs and regenerates the cells that suffer from radiation and oxidative stress damage. The nutrients in the basil leave to kill the cancer cells and limit the growth of the cancer mass. The *Tulsi* also encompass prime benefit of cancer control. Eugenol, the active component, inhibits the multiplication of cancer cells. It also stops the cancer cells from affecting the other nearby cells. Cancer-fighting phytochemicals like Myretenak, Carnosic, and more generate antioxidant activity and destroys all the cancer cells with blocks cell proliferation that curbs the chances of cancer.

#### **Kidney stone-** <sup>[30]</sup>

*Tulsi* One of the biggest benefits its diuretic property. *Tulsi* leaves have an acid in them, acetic acid. As a detoxifier, the Indian basil leaves keep the kidney healthy and free from all toxins. *Tulsi* leaves break down the stones with the help of acetic acid and cleanses the kidney stones from the kidney. With the consumption of *Tulsi*, one can also reduce the pain the stones cause as it interferes with normal bodily functions.

#### **CONCLUSION**

The medicinal plants are widely used by the traditional medicinal practitioners for curing various diseases in their day to day practice. In traditional system of medicine, different parts

(leaves, stem, flower, root, seeds and even whole plant) of *Ocimum sanctum* (*Tulsi*) have been recommended for the treatment of various diseases. But In recent years there has been a resurgence of interest in investing the traditional health promoting uses of *Tulsi*. The nutritional and pharmacological properties of the whole herb in its natural form, as it has been traditionally used, may results from synergistic interactions of many different active phytochemicals. Although *Tulsi* is known as a general vitalize and increase physical endurance.

Substantial evidence has accumulated that, in addition to *Tulsi's* many specific therapeutic applications, the herb's powerful general adaptogenic properties offer significant preventive and curative potential with respect to the stress-related degenerative diseases endemic to industrialized societies. Ongoing clinical investigation of *Tulsi's* health promoting qualities is sure to bear rich fruit.

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