Indian Traditional Shrub Tulsi (ocimum sanctum) Use in Medicine

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Abstract: Tulsi is a medicinal plant present in India recognized and prized for its medicinal and therapeutic use. It heals many diseases chronically due to its chemical constituent and believes that it has Antiageing, immunomodulatory property along with antimicrobial and anticancer property. Tulsi comes from Sanskrit word which means "matchless one". Tulsi named as Queen of Herbs of India is one of the holiest and sacred and most appreciated of the lot of healing and healthiness giving herbs. Tulsi is famous for its vital role in the conventional Ayurvedic and unani systems of body fitness health and herbal medicine of the East. This plant belongs to Labiates family and characterized by square stem and specific aroma. Tulsi use in Ayurvedic medicine and its extracts are used in Ayurvedic remedies for common colds, headaches, stomach disorders, soreness, heart sickness, a range of poisoning, and malaria in the present review, hard work have been made to link different aspects of scientific studies on this medicinal plant

Keyword: Tulsi, Queen of Herbs, Antiageing, immunomodulatory property, ocimum sanctum

Introduction

Plants are of the significant sources of remedy and a large numbers of drugs in use are derivative from plants. The therapeutic uses of plant are considered as safe, inexpensive & efficient as their ease of availability. As plants known for medical value, the plants of genus Ocimum. Belonging to family Lamiaceae are very important for their therapeutic capability1-2. The folklore of a nation reflects the real and indigenous culture of any native herb, shrub or plant. Hence folklore have been an essential part of Indian existence and civilization, therefore folk literature, namely folk songs, folk tales and folk proverbs of our nation have copious references to trees, shrubs, climbers and nature. reverence of many trees plays an key role in popular ritual and myths. Tree worship is a very ancient perform in India. It is supposed that a number of trees are the reflectance of Gods. Medicinal, religious and culinary use of Tulsi has also been predictable for decades in China and the rest of Asia, the Middle East, North Africa and Australia. Ocimum sanctum L. (Tulsi) is an erect, much branched small shrub up to 30-60 cm tall, along with straightforward opposite green or purple leaves that are powerfully scented and hairy stems. Leaves contain petiole ovate, up to 5 cm long, typically somewhat toothed3-5.

Tulasi Botanical Name– Ocimum sanctum Linn.
Ocimum tenuiflorum
Family –Lamiaceae, Labiatae – Tulasi Kula

Vernacular Names
Hindi name- Tulsi
English name- Indian Basil/ Holy Basil/ Sacred Basil
Telugu and Marathi & Malayalam name- Tulasi
Kannada name- Sri Tulasi

Tulsi, Holy Basil – The shrub with an auspicious name has medicinal practice expand from reducing ill effects of radiotherapy of cancer to maintaining Brahmacharya
Tulsi plant as per Ayurveda

Prepare Tulsi Juice as described in Ayurveda

Ayurveda doctors recommend using all plant parts of Tulsi (Ocimum Sanctum). To arrange its juice we have to collect leaves, tender branches, tender roots, seeds and flowers of Tulsi almost all aerial part of Tulsi plant. Clean them fine with flowing pure water. Sever them into small pieces and crush them in a mortar and pastel to get ready a soft paste. Put the prepared arrange on a thin cotton cloth and press it to get pure Tulsi fluid. Tulsi as an Ayurvedic drug Tulsi plant extracts are used in Ayurvedic remedies for common colds, headaches, stomach disorders, inflammation, heart disease, various forms of poisoning, and malaria. Traditionally, Tulsi is taken in many forms: as an herbal tea, dried powder, fresh leaf, or mixed with Honey or Ghee.

This traditional shrub belongs to Labiatae, it is recognized by square stem and definite aroma. Two type of Ocimum sanctum or common Tulsi plant are present.

1. Tulsi plants with green leaves known as Sri Tulsi
2. Tulsi plants with purple leaves known as Krishna Tulsi.

Tulsi medicinal property as per Ayurveda

- Tulsi has anti-inflammatory properties as it undermine vata, so its external application on swollen area helps to reduce swelling and pain.
- Tulsi cures in many skin disorders. It is efficient in skin rashes, insect bites and itching, trees of this plant are effectively used in ring worm infection also lucoderma.
- 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 nervine tonic.

- Extract of Tulsi leaves use to reduce acne, pimples and scars.

- As per ayurveda, arrangements of Tulsi are valuable in indigestion, intestinal parasites and constipation.

- Trampled leaves of Tulsi are extremely efficient in fever, cough, bronchitis and other medicinal problem of lungs.

- Tulsi employ as a cardiac tonic and purifies blood.

- Seeds of Tulsi are efficient in impulsive ejaculation. Mild aphrodisiac

Figure: Tulsi Ayurvedic uses
Tulsi Phytoconstituent:

The occurrence of essential or volatile oil provide detailed aromatic odour to *Ocimum Sanctum* that is mainly concentrated in the leaf. The aromatic volatile oil present in *Ocimum Sanctum* mostly contains phenols, terpenes and aldehydes\textsuperscript{13-15}. The essential oil from the leaves of *Ocimum Sanctum* has been establish to possess α-Thujene, Octane, Nonane, α-pinene, β-pinene, Toluene, Camphene, Sabinene, Dimethyl benzene, Myrcene, Ethyl benzene, Limocene, p-cymene, Terpiniolene, Allo-o-cimene, Butyl-benzene, α-cubebeene, Linalool, Eugenol, Methyl eugenol, β-elemene, Lactate, β-caryophyllene, Iso-eugenol, α-guaiene, α-amorphene, α-humulene, γ-humulene, α-terpeneol, Isoborneol, Carvacrol, Borneol, α-selinene, β-selinene, α-murolene, Cadinene, Calamene, Geranene, Nerolidol, Iedol and Elemol. Terpenes, the main parts of essential oils cause in insect systems donation prospects of opportunities for manipulate pests abundant constituents of Holy Basil have been recognized and include eugenol, cinnamyl acetate, and beta-elemene withdrawal of the fresh leaves and stems of *Ocimum sanctum* yield the subsequent constituents: cirsilineol, cirsimaritin, isothymusin, isothymonin, apigenin, rosmarinic acid, and appreciable quantities of eugenol\textsuperscript{16-17}.

Antimicrobial property of Tulsi:

Tulsi is mostly used for medicinal purposes and in herbal toiletry. For centuries, the dried leaves of Tulsi have been mixed with stored grains to repel insects. Many research and studies suggest that Tulsi may be a COX-2 inhibitor, antimicrobial activity of aqueous and methanol extracts of root and leaves of Ocimum sanctum against pathogenic bacteria i.e. Escherichia coli, Proteus mirabilis, Staphylococcus aureus. Study has been shown the presence of steroids, alkaloids and tannins\textsuperscript{18-19}. Significant antimicrobial activity of plant extract has been observed. Tulsi is abundant in essential oils and antioxidants, which are tremendously effective in reducing the effects of stress on the body. Therefore the aim of present study was to evaluate the antimicrobial activity of extracts from the different parts Ocimum sanctum plant against three pathogenic bacteria Escherichia coli, Proteus mirabilis\textsuperscript{20}. The Ocimum sanctum is a herbal plant having antimicrobial activity against many of the microorganisms leaf extract of O. sanctum is effective against all the strains of Xcmi.

Figure: Tulsi leave extract have anticancer property

Figure: Tulsi Antibacterial activity of this two bacteria
Conclusion
To conclude it is to be establish that the a variety of Ocimum or Tulsi species found are very much eminent from each other. All the species have been known to give different pharmacological activities due to the huge difference in the chemical composition is there. The literature will give out as a principle intended for the researchers in potential work related to the composite phytochemistry of the genus Ocimum. “Tulsi” can be measured as a powerful herb which is used by the humans from very old times. A variety of chemical constituents present in a range of parts of the plant showed potent antioxidant, antibacterial, anti-diabetic, anti ulcer, anti fertility, hepatoprotective and chemoprotective effects of which it can be completed to facilitate Ocimum Sanctum is a traditionally and clinically proved medicinal herb for use.

Reference: