

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Review On Ocimum Sanctum (Tulsi)

Kardile Aarti*, Mahadik Maya, Sayyad Gaffar, Garje Sanjay

SAJVPM's College Of Pharmaceutical Science And Research Centre Kada. Corresponding author:- Kardile Aarti

ABSTRACT:-

Tulsi (Ocimum sanctum), commonly known as Holy Basil, is a highly revered medicinal herb in traditional Indian systems of medicine such as Ayurveda. Widely recognized for its therapeutic properties, tulsi has been used for centuries in the treatment of various ailments. This review highlights the plant's broad range of pharmacological activities, including its antioxidant, anti-inflammatory, antimicrobial, adaptogenic, and immunomodulatory effects. The herb is rich in bioactive compounds like eugenol, ursolic acid, and rosmarinic acid, which contribute to its health benefits. Tulsi has shown potential in managing conditions like stress, respiratory disorders, diabetes, and cardiovascular diseases. Its ability to modulate the immune system and combat oxidative stress makes it a valuable addition to modern medicine. This review consolidates current research on tulsi's medicinal properties, emphasizing its potential role in enhancing overall health and wellbeing.

Keywords:- Ayurvedic medicines, Antioxidant properties, Bioactive compounds, Natural remedies.

Introduction:-

Tulsi (Ocimum sanctum), commonly referred to as Holy Basil, is a highly revered plant in Indian culture, particularly in the Ayurvedic system of medicine. Known as the "Queen of Herbs," tulsi holds immense spiritual, cultural, and medicinal significance. It has been cultivated for thousands of years across India and other tropical regions for its profound therapeutic properties. In Ayurveda, tulsi is regarded as a Rasayana, a herb that promotes longevity and rejuvenation. It is frequently used to boost immunity, combat stress, and support overall well-being. The herb is also integral to many religious practices, where it symbolizes purity and spiritual connection. From a scientific standpoint, tulsi is rich in phytochemicals such as eugenol, rosmarinic acid, and ursolic acid, which contribute to its diverse health benefits. These compounds give tulsi its powerful antioxidant, anti-inflammatory, antimicrobial, and adaptogenic properties. As a result, tulsi is used in modern medicine for managing stress, respiratory conditions, metabolic disorders, and even as a preventive against various infections. The importance of tulsi transcends its medicinal value, making it one of the most studied and widely used plants in natural and integrative healthcare. This introduction highlights tulsi's multifaceted role in health and wellness, providing a foundation for further exploration of its medicinal properties.

Types of Tulsi:



Classification of Tulsi:

Kingdom:	Plantae	VA		と記
Division:	Magnoliophyta	No.	A ZY	
Class:	Magnoliopsida	14/200		
Order:	Lamiales			
Family:	Lamiaceae			
Genus:	Ocimum			
Spices:	tenuiflorum or sanctum.			V.
B. Name:	Ocimum sanctum	16 000		

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 theses diseases. In case of acute fevers, a decoction of the leaves boiled with powdered cardamom in half a litre of water and mixed with sugar and milk brings down the temperature. 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.

1. Boosts Immunity

Tulsi is renowned for its immunomodulatory properties. Regular consumption of Tulsi can enhance the body's ability to fight infections by strengthening the immune system. Tulsi contains bioactive compounds such as eugenol and ursolic acid, which stimulate the production of immune cells like T-cells and natural killer cells. This makes it highly effective in combating viral, bacterial, and fungal infections.

Daily Use: Drinking Tulsi tea or chewing fresh Tulsi leaves helps to bolster immunity, especially during cold and flu seasons.

2. Reduces Stress and Anxiety

Tulsi is an excellent adaptogen, meaning it helps the body adapt to stress and promotes mental balance. It reduces the production of the stress hormone cortisol and enhances resilience to both physical and mental stress. Tulsi can alleviate symptoms of anxiety, depression, and fatigue, improving overall mental clarity and emotional well-being.

Daily Use: Consuming Tulsi-infused water or taking Tulsi supplements can help manage stress and improve mood stability.

3. Promotes Respiratory Health

Tulsi is highly effective in treating respiratory disorders such as asthma, bronchitis, and chronic obstructive pulmonary disease (COPD). It has natural expectorant properties that help clear mucus from the airways, and its anti-inflammatory effects reduce congestion and soothe respiratory discomfort. Daily Use: Inhaling steam with Tulsi leaves or drinking Tulsi tea can help relieve symptoms of cough, cold, and sinus congestion.

4. Improves Digestive Health

Tulsi aids in digestion by stimulating the production of digestive enzymes and reducing gastric acidity. It is also known to alleviate indigestion, bloating, and acid reflux. Additionally, its gastroprotective properties help prevent the formation of ulcers and protect the stomach lining from damage. Daily Use: Chewing fresh Tulsi leaves before meals or drinking Tulsi tea can promote healthy digestion and prevent acidity.

5. Supports Cardiovascular Health

Tulsi has cardioprotective properties due to its ability to lower cholesterol levels, reduce blood pressure, and prevent the formation of arterial plaque. Its antioxidant compounds, particularly ursolic acid and rosmarinic acid, help protect the heart and blood vessels from oxidative stress and inflammation, reducing the risk of heart disease.

Daily Use: Adding Tulsi to your daily tea or using Tulsi supplements can support heart health and help regulate cholesterol.

6. Regulates Blood Sugar Levels

Tulsi is known for its hypoglycemic effects, making it beneficial for people with type 2 diabetes. It helps regulate blood sugar levels by improving insulin sensitivity and reducing the absorption of glucose in the intestines. This can help prevent blood sugar spikes and improve glycemic control.

Daily Use: Drinking Tulsi tea or consuming Tulsi extract before meals can help manage blood sugar levels.

7. Enhances Skin and Hair Health

Tulsi's antibacterial, antifungal, and antioxidant properties make it an effective natural remedy for skin conditions like acne, eczema, and infections. It helps purify the blood and remove toxins from the body, leading to clearer skin. Tulsi also promotes hair health by reducing scalp infections, controlling dandruff, and stimulating hair growth.

Daily Use: Applying Tulsi paste on the skin or using Tulsi-infused oils for hair treatment can improve skin complexion and promote hair growth.

8. Acts as a Natural Detoxifier

Tulsi helps detoxify the body by promoting the elimination of toxins through urine and supporting liver function. Its diuretic properties help flush out waste products, while its antioxidant content protects the liver from oxidative damage, making Tulsi an excellent herb for overall detoxification. Daily Use: Drinking a cup of Tulsi tea in the morning can help cleanse the body and support liver function.

9. Relieves Headaches and Migraines

Tulsi's analgesic and antispasmodic properties make it an effective remedy for headaches and migraines. It helps reduce tension, relax muscles, and alleviate the pain associated with chronic headaches.

Daily Use: Drinking Tulsi tea or applying a paste of Tulsi leaves to the forehead can provide relief from headaches and migraines.

10. Improves Oral Health Tulsi's antibacterial properties make it an excellent remedy for oral health. It helps prevent gingivitis, bad breath, and tooth decay by inhibiting the growth of harmful bacteria in the mouth. Chewing Tulsi leaves or using Tulsi-based toothpaste can improve oral hygiene. Daily Use: Chewing fresh Tulsi leaves daily or using Tulsi-infused mouthwash can help maintain oral health and prevent dental issues.

Marketed preparation of Tulsi:



Conclusion:-

Tulsi (Ocimum sanctum), also known as Holy Basil, holds a prominent place in traditional Ayurvedic medicine and has been recognized for its extensive therapeutic potential. Through numerous studies, Tulsi has demonstrated a wide range of pharmacological activities including antioxidant, anti-inflammatory, antimicrobial, adaptogenic, and anticancer properties. These therapeutic benefits are largely attributed to the bioactive compounds present in Tulsi, such as eugenol, ursolic acid, and rosmarinic acid. The adaptogenic effects of Tulsi help in stress management, promoting resilience to physical, emotional, and environmental stressors. Additionally, Tulsi has shown promise in supporting cardiovascular health, improving immune function, and even combating metabolic disorders. Its antimicrobial properties make it effective against a variety of pathogens, further reinforcing its value in promoting overall health and well-being. However, despite the vast array of preclinical studies supporting Tulsi's health benefits, more clinical trials are needed to validate its efficacy and safety in human populations. Future research should focus on standardizing the dosage and understanding the long-term effects of its use.

REFERENCES:

- 1.Singh, N., Verma, P., & Pandey, B. (2020). Therapeutic potential of Ocimum sanctum in preventive medicine: A review. Journal of Ayurveda and Integrative Medicine, 11(1), 1-9.
- 2.Prakash, P., & Gupta, N. (2005). Therapeutic uses of Ocimum sanctum Linn (Tulsi) with a note on eugenol and its pharmacological actions: A short review. Indian Journal of Physiology and Pharmacology, 49(2), 125-131.
- 3. Mondal, S., Mirdha, B. R., & Mahapatra, S. C. (2009). The science behind sacredness of Tulsi (Ocimum sanctum Linn.). Indian Journal of Physiology and Pharmacology, 53(4), 291-306.
- 4. Prakash, P., & Gupta, N. (2005). Therapeutic uses of Ocimum sanctum Linn (Tulsi) with a note on eugenol and its pharmacological actions: A short review. Indian Journal of Physiology and Pharmacology, 49(2), 125-131.
- 5. Singh, S., Taneja, M., & Majumdar, D. K. (2007). Biological activities of Ocimum sanctum L. fixed oil—An overview. Indian Journal of Experimental Biology, 45, 403-412.
- 6.Pandey, G., Verma, K. K., & Singh, M. (2014). Evaluation of phytochemical, antibacterial and antioxidant properties of leaf extracts of Ocimum sanctum (Tulsi) from India. Journal of Pharmacy and Pharmacology, 66(7), 820-828.
- 7. Negi, P. S., & Jayaprakasha, G. K. (2003). Antibacterial activity of turmeric oil: A byproduct from curcumin manufacture. Journal of Agricultural and Food Chemistry, 51(7), 2160-2164.
- 8. Ahmed M, Ahamed RN, Aladakatti RH, Ghosesawar MG. Reversible anti-fertility effect of benzene extract of Ocimum sanctum leaves on sperm parameters and fructose content in rats. J Basic Clin Physiol Pharmacol. 2002; 13(1):51-9.
- 9.Amrani S, Harnafi H, Bouanani Nel H, Aziz M, Caid HS, Manfredini S, Besco E, Napolitano M, Bravo E. Hypolipidaemic activity of aqueous Ocimum basilicum extract in acute hyperlipidaemia induced by triton WR-1339 in rats and its antioxidant property. Phytother Res. 2006;20(12):1040-5.
- 11.Banerjee, S, Parashar R, Kumar A, Rao A R. Modulatory influence of alcoholic extract of Ocimum leaves on carcinogen-metabolizing enzyme activities and reduced glutathione levels in mouse. Nutr Cancer 1996, 25(2): 205-217
- 12.Bansod S and Rai M. Antifungal Activity of Essential Oils from Indian Medicinal Plants against Human Pathogenic Aspergillus fumigatus and A. niger. World Journal of Medical Sciences 2008, 3(2): 81-88
- 13.Bhargava K P, Singh N. Antistress activity of Ocimum sanctum Linn. Ind J Med Res 1981,73:443-451
- 14."Optimum Sanctum: A Review of Its Phytochemical and Pharmacological Profile" Journal of Pharmacy and Pharmacology (2020)
- 15."Optimum Sanctum: A Polyherbal Formulation for Immune Modulation and Anti-Inflammatory Activity" Journal of Ayurveda and Integrative Medicine (2018)
- 16."Evaluation of Immunomodulatory Activity of Optimum Sanctum" Indian Journal of Pharmaceutical Sciences (2017)
- 17. Cohen, M. M. (2014). Tulsi Ocimum sanctum: A herb for all reasons. Journal of Ayurveda and Integrative Medicine, 5(3), 251-259.
- 18.Jamshidi-Kia, F., Lorigooini, Z., & Amini-Khoei, H. (2020). Medicinal, pharmaceutical and toxicological aspects of Ocimum sanctum. Journal of HerbMed Pharmacology, 9(2), 108-122.
- 19. Kumar, N., Bhandari, P., Singh, B., & Bhandari, S. (2015). Comparative pharmacological evaluation of different extracts of Ocimum sanctum. Journal of Ethnopharmacology, 159, 69-77.
- 20.Chatterjee, Gautam (2001). Sacred Hindu Symbols. Abhinav Publications. pp. 93. ISBN 9788170173977.Simoons, pp. 17-18.
- 21. Claus, Peter J.; Sarah Diamond, Margaret Ann Mills (2003). South Asian Folklore: An Encyclopedia. Taylor and Francis. p. 619. ISBN 9780415939176.
- 22. Simoons, Frederic J. (1998). Plants of life, Plants of death. Univ. of Wisconsin Press. Pp. 740. ISBN 9780299159047.
- 23. Staples, George, Michael S. Kristiansen (1999). Ethnic culinary herbs. University of Hawaii Press. p. 73. ISBN 9780824820947.
- 24.Puri, Harbans Singh (2002). Rasayan: Ayurvedic herbs for Longevity and Rejuvenation. CRC Press pp. 272280. ISBN 9780824820947.
- 25.BiswasNP, BiswasAK. Evaluation of some leaf dust as grainprotectant against rice weevil Sitophilusoryzae (Linn.) Environ Ecol. 2005, 23: 485-8.
- [9] Sharma, P, Kulshreshtha,S, Sharma, A L. Anti-cataract activity of Ocimumsanctum on experimental cataract. Indian Journal of Pharmacology,v.30.n.1,1998:16-20.
- 26. JyotiSethi, SushmaSood, Shashi Seth. And AnjanaTalwar, Evaluation of Hypoglycemic and Antioxidant Effect of Ocimum sanctum, Indian Journal of clinical biochemistry, 20204, 19(2)152-155.
- 27.Gupta SK, Prakash J, Srivastava S. Validation of traditional claim of Tulsi, Ocimum sanctum Linn. as a medicinal plant. 2002.
- 28.Bhamra S, Heinrich M, Howard C, Johnson M, Slater A. DNA authentication of tulsi (Ocimum tenuiflorum) using the nuclear ribosomal internal transcribed spacer (ITS) and the chloroplast intergenic spacer trnHpsbA. Planta Medica. 2015 Nov;81(16):PW_20.
- 29.Garodia P, Ichikawa H, Malani N, Sethi G, Aggarwal BB. From ancient medicine to modern medicine: ayurvedic concepts of health and their role in inflammation and cancer. J Soc Integr Oncol. 2007 Mar 21;5(1):25-37.
- 30.Pattanayak P, Behera P, Das D, Panda SK. Ocimum sanctum Linn. A reservoir plant for therapeutic applications: An overview. Pharmacognosy reviews. 2010 Jan;4(7):95.