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Medical use of Tulsi Plant and its Importance for Human Beings

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Abstract: ***Ocimum tenuiflorum (synonym Ocimum sanctum), commonly known as holy basil, tulsi is an aromatic perennial plant. Tulsi is a plant that has many medicinal properties. It has an excellent analeptic effect that can heal the mind as well as the body. Tulsi as properties antioxidant and anti-inflammatory reduces inflammation by maintaining the nerves and the tissues that are damaged by harmful free radicals.***
Keywords*:* ***Ocimum tenuiflorum, holy basil, human beings, Oral medicine, Medicinal plant, Anti-inflammatory, etc.***

I. INTRODUCTION

The origin of tulsi is to be found on the Indian subcontinent. The Tulsi plant is a herbaceous perennial, that belongs to the family Lamiaecae it is 60 -90 cm high with a short stem, and large leaves oblong and up to one meter long, Flowers are yellow-white in color, sterile, and do not produce viable seed. The leaves of this plant on steam distillation yield a bright yellow color volatile oil possessing a pleasant odor with an appreciable note of clove oil. Tulsi leaves and inflorescence oil has been touted as having a variety of beneficial properties, such as expectorants, analgesics, anti-emetics, and antipyretics; stress and inflammation relievers; anti-asthmatic, hypoglycemic, hepatoprotective, hypertensive, hypolipidemic, and immunomodulatory agents; and expectorants, analgesics, and antipyretics.

II. MEDICAL USES

A. Fever & Common Cold

The leaves of basil are used for fever. Due to its immunomodulatory and antimicrobial properties, Tulsi enhances the immune system of the body. Tulsi has an antipyretic anddiaphoretic activity that helps to induce sweating and normalizes the elevated body temperature during fever. [1]

B. Heart Disorder

Tulsi has a profound effect on the treatment and prevention of cardiovascular diseases by lowering blood lipid content, suppressing ischemia and stroke, reducing hypertension, and also due to its higher antioxidant properties. Heart Disorder Basil has a beneficial effect on cardiac disease and the weakness resulting from them. It reduces the level of blood cholesterol. A growing epidemic of coronary heart disease in low-and middle-income countries. [2]

C. Respiratory Disorder

The herb is beneficial in the treatment of system disorders. A decoction of the leaves, with honey and ginger, is a good remedy for respiratory disease, asthma, influenza, cough and cold Eugenol (extracted from Tulsi leaves) has been well shown to possess the vaso-relaxing action on rabbit arterial tissue indicating its therapeutic importance as a vasodilator.[3,4]

D. Inflammatory Disorders

Tulsi inhibits inflammation-causing enzymes in our bodies which contribute to pain and other signs of inflammation. The anti-inflammatory effects of Tulsi are comparable to ibuprofen, naproxen, and aspirin. Tulsi even enhances adrenal function by lowering cortisol levels. This results in reducing the negative effects of stress. Tulsi is very effective in suppressing any kind of edema that happening in the body. It improves blood circulation in the body therefore helpful in dealing with any kind of swellings in the body.

E. Anticariogenic Agent

Tulsi plants are known to have hypoglycemic, smooth muscle relaxant, cardiac depressant, anti-fertility, adaptogenic, immunomodulatory, antibacterial, antifungal, antiviral, anti-diabetic, wound healing, anti-oxidant, genotoxic, anti-carcinogenic, radio-protective, neuro-protective, immunological, contraceptive, cardio-protective and lavricidal properties.

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In an in-vitro study, the various concentrations of Tulsi extracts were assessed against Streptococcus mutants' and concluded that Tulsi extracts at 4% have maximum Anticariogenic potential.[6] Tulsi has been shown to possess excellent anticancer activity.[7] Detoxification of carcinogens and mutagens which is carried out by enzymes such as glutathione-S-transferase, cytochrome b5, and cytochrome P450, and aryl hydrocarbon hydroxylase is modulated by the alcoholic extract (AlE) of leaves of O. sanctum. The anticancer activity of Tulsi has been reported against human fibrosarcoma cell culture, wherein AlE of the drug-induced cytotoxicity at 50 mg/ml and above. In such studies, microscopically, the cells showed shrunken cytoplasm and condensed nuclei. The DNA was found to be fragmented when observed in agarose gel electrophoresis. [8]

F. Diabetes Mellitus

Diabetes*;* also known as Diabetes mellitus is a kind of endocrine disorder that is categorized by the rise in blood sugar level which develops long-term complications which include cardiovascular diseases, kidney failure, chronic illness, eyesight problems, and many more. In this very disease, the pancreas is unable to produce enough insulin which slowly harasses our whole system. There can be one more reason for diabetes; it can be like our body cells are unable to respond to the insulin produced. The leaves of the Tulsi plant contain various essential oils within them. It is therefore very useful in improving pancreatic beta cell function and thus enhancing insulin secretion to keep a check on the blood sugar within the patients suffering from diabetes. A study conducted on rats has suggested that constituents of O.sanctum leaf extracts have a stimulatory effect on insulin secretion. [9] A combination of Tulsi and Neem extracts has been shown to lower sugar levels in humans. [10]

G. Gastrointestinal Disorders

Tulsi leaves help to cure indigestion and loss of appetite. They are also used for the treatment of flatulence and bloating. It helps improve appetite. Also, have some mild laxative properties, therefore, helping in the evacuation of the bowel and maintenance of a healthy bowel.[11] The juice of fresh leaves is also given to patients to treat chronic fever, dysentery, hemorrhage, and dyspepsia. [12,11] Tulsi leaves were also checked for vomiting and have been as anthelmintic. Gastric ulceration and secretion are reported to be inhibited by Tulsi in albino rats. [13, 14]

H. Stress

Tulsi leaves are observed as a stress booster agent. [15]Helps beat stress Tulsi is a natural herb with anti-stress qualities. Hence, sipping a cup of Tulsi tea can Skincare and healthy hair one of the important holy basil uses to prevent and treat several skin and hair conditions. Tulsi extract has antibacterial properties.

III. CONCLUSION

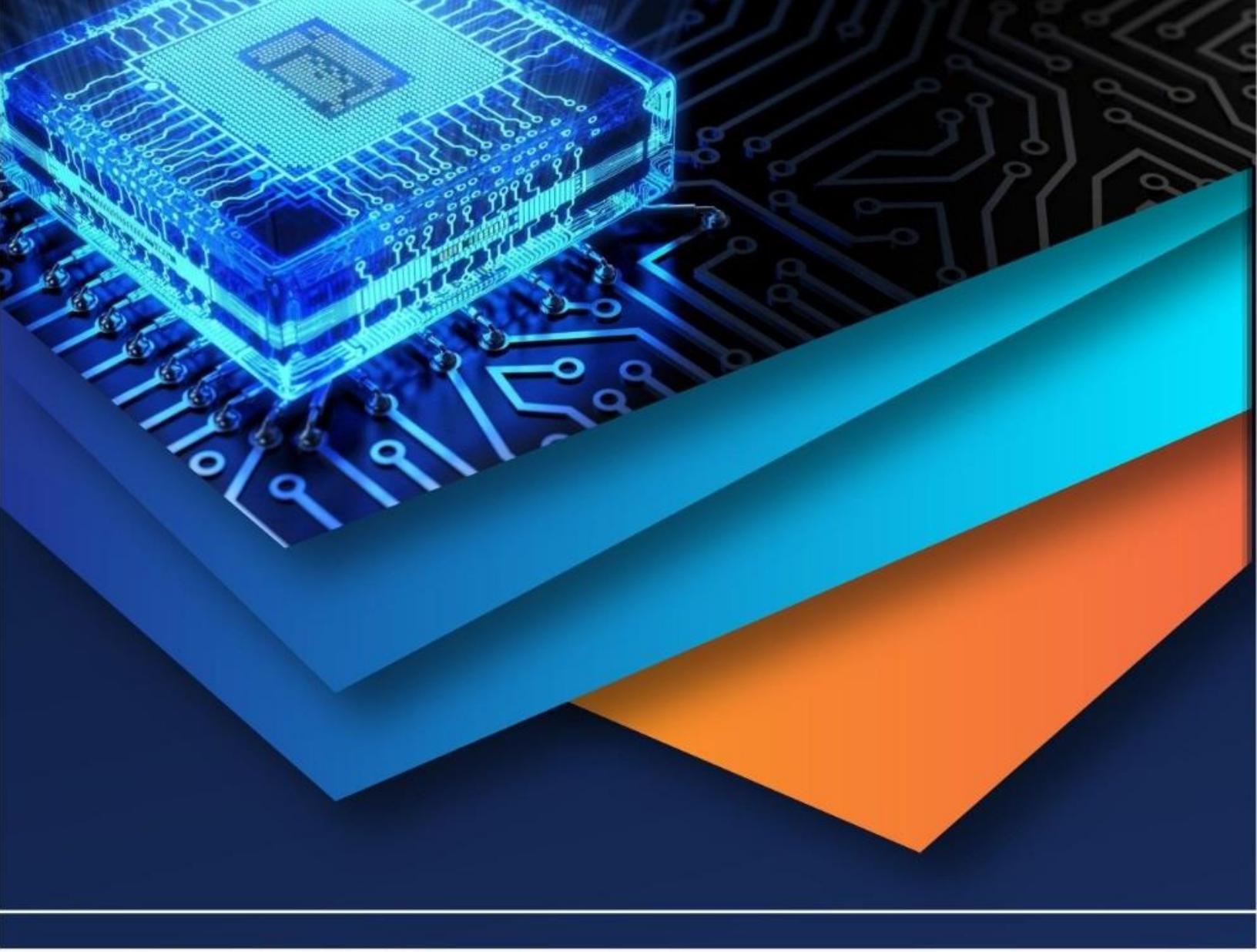
Therapies involving plants have existed for thousands of years and some may be as old as human civilization itself. One such medicinal plant is "Tulsi" which is regarded as the "Queen of Herbs" because of its varied medicinal properties and mythological value too. Despite the lack of large-scale or long-term clinical trials on the effect of tulsi in humans, the findings from 24 human studies published to date suggest that tulsi is a safe herbal intervention that may assist in normalizing glucose, blood pressure, and lipid profiles, and dealing with psychological and immunological stress. Tulsi has been widely used for curing various ailments due to its great therapeutic potential. Tulsi is a popular home remedy for fever, liver diseases, bronchitis, skin diseases, Cancer, and Stress disorders. It has aromatic, stomachic, carminative, demulcent, diuretic, Vermifuge, and febrifuge properties.

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