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#### REVIEW ON TRIDAX PROCUMBEN AS AN ANTI-INFLAMMATORY AND ANTIFUNGAL ACTIVITY FOR THE TREATMENT OF DANDRUFF

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### **ABSTRACT:**

The aim of this review is to examine the phytochemical composition of Tridax procumben L. and as certain if it possesses anti-inflammatory and anti-fungal characteristics. The main objective of phytochemical screening is to determine whether a powder sample of Tridax procumben L. leaves contains cardiac glycosides and flavonoids for the purpose of assessing their anti-inflammatory effect and the methanolic extract of the procumben tridax shows the antifungal effect.

**Keywords:** Herbal drugs, Tridax procumbens, Extraction, Flavonoids, Pharmacological testing, Antiinflammatory activity

# **INTRODUCTION**

#### Synonyms:

- 1. Balbisiaacanescens
- 2. Balbisiadivercata
- 3. Balbisiapenucalta
- 4. Balbisiaelongata
- 5. Chrysanthemum Procumbens

An herbal remedy the other species in the genus are called Trilobata, or Tridax procumbens, meaning Coat Button in Hindi. This plant is mostly utilized in the traditional Indian method.

In addition to gastritis and heartburn, some Ayurvedic practitioners also prescribe it for "Bhringraj" a wellknown drug for hepatoprotective properties or liver diseases.1

Native to tropical America, Africa, Asia, Australia, and India are these plants. It is a wild herb that grows all over India. In addition, coat buttons can be discovered around railroads, riverbanks, meadows, and waste areas. Its proliferating stems and copious seed production account for its broad dispersal and significance as a weed.2 The week-straggling plant Tridax has leaves that are 6 to 8 cm long and a few very long, thin, solitary pods that can reach a length of a foot or more. Tridax is about 12 to 24 cm long. The simple, opposite, oval, sharp, and ex-stipulate leaf of the inflorescence capitulum.

Cypsela is the fruit of Tridax, which has two varieties of flowers: disk and ray blooms.

It is primarily recognized for being a common weed and nuisance plant. Tridax has long been used in India as an anticoagulant, antifungal, and insect repellant in addition to wound healing. It was determined that the antidiabetic qualities of Glibenclamide and the Tridax flower extract.3

In India, Tridax procumbens has long been used for the following pharmacological activities they are as follow:

## **Pharmacological Activity:**

1.Anti inflammatory 2.Anti-fungal

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3.Anti-bacterial
4.Anti-oxidant
5.Wound healing
6.Anti-ulcer
7.Haemostatic activity
8.Anti arthritis activity
9.Insecticidal activity
10.Anti-diarrheal / anti-secretory activity
11.Anti cancerous activity.
12.Anti-obesity activity
13.Repellency Activity
14.Deflouridiation Activity

## **1.Anti-inflammatory:**

A chemical or treatment that has the ability to diminish inflammation or swelling is said to be anti-inflammatory or antiphlogistic. The Tridax extract's inhibition zone corresponded with this one. The Tridax extract improved the suppression of edema when combined with the widely used drug lbuprofen. Ibuprofen and Tridax extract demonstrated a significant anti-inflammatory effect.<sup>3</sup>

# 2. Anti-fungal:

Antifungals are drugs that either eradicate or inhibit the growth of the infection-causing fungi, which are the plural of fungus. Another name for them is antimycotic agents. Tridax procumbens has potent antifungal properties. The phytopathogenic fungus Aspergillus niger was tested against the whole plant extract, while Fusarium oxysporum was tested against the leaf extract. The essential oil obtained from Tridax procumbens has been demonstrated to exhibit a 12–15 mm zone of inhibition against three types fungi, namely Trichomonas albicans, tropicalis, and parapsilosis . Candida albicans was found to be more sensitive to the bioactive flavonoid compound of Tridax procumbens when it was tested against Aspergillus flavus, niger, and Trichophyton sp. This suggests that the plant may have antifungal activity.<sup>4</sup>

At 100 mg/ml, the inhibitory zone's concentration range is 8–13 mm. However, Tridax procumbens L.'s methanol leaf extract was effective against Candida albicans and Candida tropicalis. This information indicates that the methanol root extract contains bioactive compounds that may eventually result in a more effective medication that fights candidia Tridax procumbens extract could eventually show promise as a treatment for Candida infections.

## 3.Anti-bacterial:

Anything that eliminates microorganisms or inhibits their development or capacity to produce infections.

Tridax procumbens was tested against Pseudomonas aeruginosa in order to determine its antibacterial activity. The nosocomial strain of Pseudomonas was identified from a ventilator used to treat pneumonia patients' secretions, including bronchoalveolar lavage and tracheal secretions. According to this investigation, the ethanolic extract shown excellent antibacterial efficacy against Pseudomonas aeruginosa. The concentration of 5 mg/ml is where the increased zone of inhibition is found. When the strain was tested against a few control antibiotics, such as augmentin, cephalotaxime, ciprofloxacin, and even ticarcillin, it only demonstrated imipenem sensitivity. The entire Tridax plant possesses antimicrobial properties. This study used the disc diffusion method to demonstrate the whole plant Tridax's potent antibacterial activity against Pseudomonas aeruginosa.Tridax procumbens leaf extract was analyzed for antibacterial activity using a variety of solvents,

including hexane, chloroform, butanol, ethanol, and water. The methanol extract exhibited the strongest efficacy against Shigella flexneri and Salmonella typhi, while having the lowest activity against Escherichia coli.<sup>5</sup>

# 4.Anti-Oxidant:

A substance that inhibit the oxidation is known as the anti-oxidant .

The special bioactive substances helped to stop the onset of heart, cancer, and age-related illnesses. Additionally, it has been suggested that they function as chemo-preventive agents by mending damaged cells and decreasing cholesterol. An appropriate assessment for determining in vitro antioxidant activity is the DPPH technique. It is predicated on the interaction of an antioxidant (AH) with DPPH (1, 1-diphenyl, 2-picryl hydroxyl), a nitrogen-cantered free radical. The n-butanol and ethyl acetate fractions have demonstrated notable activity in the methanol extract. The hydrogen-donating capacity of the Ascorbic acid and Tridax procumbens fractions was used to quantify their ability to scavenge free radicals.<sup>6</sup>

## 5.Wound healing:

The process of healing a wound is multifaceted and dynamic, with the ability to regenerate tissue and cell architecture. Given a whole plant extract of Tridax procumbens L., rats with compromised immune systems can resume normal and immunocompromised wound healing. Without altering its anticontraction and antigranulation effects, tridax offset the well-known healing suppressant dexamethasone's antiepithelization and tensile strength-depressing effects. The wound-healing mechanism of this plant material involves complex relationships between dermal and epidermal cells, extracellular matrix, controlled angiogenesis, and proteins derived from plasma. A variety of growth factors and cytokines regulate these interactions.<sup>7</sup> In addition to lysyl oxidase, the plant also increases nucleic acid and protein content in the granulation tissue, most likely as a result of increased glycosamino glycan content. Use animal models to investigate the potential of Tridax procumbens ethanol and aqueous extract for wound healing.<sup>8</sup>

## 6.Anti-ulcer:

Anti-ulcer is the treatment for the prevention of the ulcer.

Methanolic extracts of Tridax procumbens have antiulcer properties. The ulcer-prevention effect of 100 mg/kg of Tridax procumbens Linn methanol extract was evaluated in this study using myeloperoxidase activity in albino rats. The results of the study show that the whole methanolic extract of the Tridax procumbens Linn plant has ulcer prevention and protection properties, which may help prevent ulcerative colitis.<sup>9</sup>

## 7. Haemostatic:

The hemostatic efficacy of several extracts from Tridax procumbens leaves was investigated. The clotting times of ten human volunteers were examined using an in vitro technique. Plant ethanol extract exhibited promising results. The clotting time in blood samples is consistently lowered by the ethanolic extract of Tridax procumbens leaves. This investigation demonstrated how hemostatic activity influences hemostasis.<sup>10</sup>

## 8.Anti arthritic activity:

One or more joints can be impacted by the inflammatory disease known as arthritis. Due to people's busy lives and inadequate hydration intake, it is increasing. Several studies have been carried out to record the effects of 500 and 250 mg/kg doses of Tridax procumbens ethanol extract on arthritis.

The recommended dosage of indomethacin was 10 mg/kg. Strong anti-arthritic effects were demonstrated by the whole plant extract of Tridax procumbens. The results resembled the effects of indomethacin.<sup>11</sup>

### 9.Insectcidal Activity:

The extracted oil is tested against three different species of ants. The essential oils of T. procumbens demonstrate great insect repellent action and are quite effective. Cattle neither attacked nor grazed on T. procumbens during the collection, which may indicate that the plant has insecticidal or insect repellant properties.<sup>12</sup>

## 10.Anti diarrheal / Anti secretory activity:

Hexane, alcohol, chloroform, butanol, and an aqueous extract of various parts of native Indian medicinal plants make up the heterocyclic compound. Demonstrate their ability to combat diarrhea caused by E. coli. T. Procumbens exhibits strong anti-diarrheal properties.<sup>13</sup>

### **11.Anti Cancerous activity:**

Tridax procumbens was investigated for its anticancer properties using PC3 prostate epithelial malignant cells. Acetone and water were used to extract the flowers of Tridax. Cell viability was used in the MTT assay to measure anticancer activity. The cell viability test was used to evaluate both extracts. At 570 nm, viable cells are measured using spectrophotometry. Within the water extract had virtually little anticancer effect. The analysis's findings demonstrated the anti-cancer properties of floral crude extract.<sup>14</sup>

### 12.Anti-obesity activity:

In an atherogenic diet-induced obesity paradigm, the plant extract significantly decreased free fatty acids, total protein, triglycerides, total cholesterol, and elevated high-density lipoprotein cholesterol in the treated rats. It was discovered that Tridax Procumbens has a significant anti-obesity effect. These are the some pharmacological activities shown by the Tridax Procumbens.<sup>15</sup>

## **13. Repellence Activity:**

Steam distillation was used to extract essential oils from Tridax procumbens Linn leaves. The topical repellent properties of the oil is tested again malarial parasite.<sup>16</sup>

## **14.Defluoridation activity:**

Naturally occurring fluoride found in drinking water. Water companies added fluoride to their products to protect teeth. However, some naturally occurring drinking water may have fluoride levels higher than the safe threshold set by the World Health Organization. More scientific rigor has recently led water supply technologists to rediscover the use of natural products.<sup>17</sup>



**Fig.1: Pharmacological Activity of Tridax Procumbens** 

### **Ancient Uses of Tridax Procumbens:**

It is a regular weed and blooming shrub with a variety of therapeutic uses. It has long been used in India as a wound healing agent, insect repellent, anticoagulant, and antimicrobial. It is also used to treat boils and blisters. Many people use this herbaceous plant as a folk remedy for ulcers and hair loss. In ethnomedical practicesits, leaf infusions were utilized to treat skin infections. Because the plant decoctions have hepato-protective properties it is a popular ayurvedic remedy for diseases of the liver. In addition, extracts are used to treat heartburn and gastritis.<sup>18</sup>

It's commonly used to halt bleeding from wounds, bruises, and cuts while they heal. Furthermore, in cases of severe diarrhea and dysentery, the plant is used to lower high blood pressure and blood glucose levels.19

It helps to stimulate hair growth and can be used to stop hair loss. The herb is also used to treat respiratory conditions. It has strong insect-repelling and immune-modulating properties. The plant's leaves are used by tribal peoples and rural medical professionals are used in other tropical regions of the world as a conjunctivitis remedy. The ethnic system also used this medicinal herb to treat liver problems and jaundice. Kidney stone disorders were also treated with Tridax procumbens ethanol infusions.<sup>12</sup>

Multinational corporations are more interested in locating materials derived from plants since they are the main source of molecules needed to create new pharmaceuticals. Especially since most species have not yet been thoroughly investigated chemically, especially in relation to their ability to reduce inflammation. Anti-inflammatory medications can reduce tissue damage and improve patient comfort by interfering with the pathophysiological process of inflammation. Consequently, it is imperative to keep in mind that the successful development of novel naturally occurring anti-inflammatory drugs primarily depends on a multidisciplinary search for new compounds because there are many species available for investigation. While there have been a lot of review articles published in this area, most of them only covered a small portion of the topic.<sup>13</sup>

The vernacular names of the tridax procumbens are as follows

- 1.Marathi: Dagadi pala
- 2.Hindi: Gharma
- 3.English: Coat buttons
- 4.Tamil: Thata poodu
- 5.French: Herebe caile
- 6.Bengali: Tridhara
- 7.Sanskrit: Jayanti Veda
- 8.Telugu: Gayapu aku.

## **Taxonomic Classifications:**

## Table No.1: Taxonomical Classification

Kingdom: -	Plantae	
Division: -	Angiosperms	
Order: -	Asterales	
Family: -	Asteraceae	
Genus: -	Tridax	
Species: -	Procumbens	
Scientific name: -	TridaxProcumbens Linn.	

Subkingdom: Tracheobita Subdivision: agnoliophyta<sup>21</sup>

### **Chemical Composition:**

The chemical components found in plants include tannin, fl-sitosterol, oleanolic acid, and fumeric acid Leaf extract contains the following: alkaloids, carotenoids, flavonoids (catechins and flavones), saponins, and tannins. Minerals like calcium, magnesium, potassium, sodium, and selenium are found in leaves. Flowers are a good source of luteolin, isoquercetin, quercetin, and glucoluteolin. Leaf has 5 percent calcium oxide. Several isolated constituents from T. procumbens were found, according to reports from pharmaceutical chemistry<sup>22</sup>

### **Extraction:**

Water extraction is required for both phytochemical and pharmacological screening of the powder. Aqueous extraction requires the maceration procedure. 20 grams of powdered Tridax procumbens leaves were provided to us in a beaker. 200 milliliters of distilled water were added. Thoroughly mixed with care to avoid slugging. To stop any fungus from sprouting, add 5ml of chloroform after giving it a good stir. After that, correctly seal the beaker with a muslin cloth. Every two to three hours for seven days, the beaker was carefully swirled. The solution was filtered on day seven. Evaporating the filtrate will require external heat application. Until a solid particle was achieved, the filtrate was evaporated. Gathering the solid particle and preparing it for a phytochemical and pharmacological screening. We added about 10g of powdered Tridax procumbens leaves to the Soxhlet apparatus in order to do an ethanolic extraction using that device. added the powder sample to a porous bag or "thimble" that was placed inside the Soxhlet apparatus chamber and was constructed of sturdy filter paper or muslin cloth. used a chloroform first for the Soxhlet extraction process. Fatty acids and chlorophyll contained in the powder sample will be eliminated by chloroform. Next, put 250 milliliters of chloroform into the instrument and turn on the water supply. Set the heating element to 600 degrees Celsius and keep it there until the solvent drop from the siphon tube evaporates without leaving any trace behind. Turned off the heat source and let the assembly cool.<sup>23</sup>

## 1. Look of the tridax procumbens :

A perennial herb, Tridax procumbens grows to a maximum length of 8 to 30 inches (20 to 75 cm) on a creeping stem.



Fig.2: Complete view of The Plant T. Procumbence

## 2. Leaf:

The perennial herb Tridax procumbens has a creeping stem that can grow to a length of 8 to 30 inches (20 to 75 cm).



Fig.3: Leaf of the T. Procumbens

### 3.Root:

Strong taproots make up the root. The tuberculate base of the cylindrical, firm, and extremely hispid stem is coated in 1 mm multicellular hairs. The petiole, which is one to two centimeters long, carries the opposite, simple leaves. They are dark green, velvety, and thick.<sup>3</sup>



**Fig.4: Root of The Tridax Procumbens** 

## 4.Flower:

The flowers of Tridax procumbens feature yellow disk flowers with white rays. Held atop a 4-12 inch (10–30 cm) long stem, they measure approximately 0.4–0.6 inches (1–1.5 cm) in width. Springtime brings flowering.<sup>21</sup>



**Fig.5: Flower of Tridax Procumbens** 

### 5.Seed:

Inflorescence: solitary flower heads, yellow disc florets, white, three-lobed ray florets. Fruit, bristled, gray achene. Seeds are used in its proliferation. Although it is not a common weed, it may be found in waste areas and a number of arable regions.



Fig. 6: Seeds

## 6. Inflorescence:

Inflorescences in a single capitulum, supported by a 12–32 cm long, profusely hispid peduncle. The involucre's brackets are positioned in two lines. It is green, pubescent, round to lanceolate, and 6 mm in length.



Fig.7: Inflorescences

## 6.Calyx:

It can be reduced to pappus or represented by scales.

### 7.Genetics:

Tridax procumbens has been assigned chromosomal numbers 2n-36.<sup>23</sup>

### 8.Habitat:



## Fig.8: Habitat

The tropical and subtropical herbaceous weed Tridax procumbens grows mostly in meadows, croplands, disturbed areas, lawns, roadside, and settlement areas during the rainy season. It can be annual or perennial. This medicinal plant demonstrates a trait of a beneficial weed.

## Phyto chemicals Found in the Tridax Procumbens :<sup>21</sup>

Extraction	Compounds	Plant organ
Aqueous	Anti diabetic Compounds	Aerial parts
Chloroform , Acetone Tannins, Condensed Catechic		Leaves
Ehtyl Acetate, Aqueous ethanol	Flavonoids , Kaempferol, Isoquercetin .	Leaves , Stem , Root , And Flower
Methanol - Dicholoromethane	Bioactive components for antifungal activity against Dermatophytes	Aerial Parts
Ethanol – acetic acid	Alkaloids for the Anti microbial activity Against human pathogen.	Pedicles and Buds
Petrolieum Ether	Anti oxidant Uses Against DPPH	Dried Plants
Distilled Water -Ethanol	Immunomodulatory Effects in Rats	Aerial Parts
Methanol -n- butanol	Mostly Flavonoids And Saponin	Dried Leaves
Ethanol	Saponin B-Sitosterol -3-O-β- D-xylopyranoside	Flowers
N hexane	Anti microbial Against Mycobacterium Smegmatis, E.Coli.	Flowers and Aerial Parts
Ethanolic Extarct	Phytochemical Screening :Alkaloids, Glycosides	Whole Plant Dried

# Table No 2: Extraction, Compounds and Plant Origin of T. Procumbens

## Anti Dandruff Effect:

## Dandruff:

A common skin condition called dandruff makes your scalp itch and flake. Your scalp may occasionally feel itchy, especially in cold or dry weather, and you may notice white skin particles on your clothing and hair if you have dandruff. It can be annoying to have dandruff all the time. While there are usually no major side effects associated with dandruff, excessive scratching can aggravate the itching and cause inflammation.

Stress and a lower quality of life can also result from worrying about whether or not other people can see dandruff flakes in your hair and clothing.

There are several different treatments that could be helpful if you have dandruff. Natural remedies like Tridax Procumbens and medicated shampoos are two options for treating dandruff. It might take trying a few different treatments before you find one that works for you, as not all treatments are effective for everyone.<sup>25</sup>

# Herbal Formulation:

These are cosmetics that use ancient Ayurvedic herbs to clean the hair and scalp similarly to regular shampoo. They are employed to remove oils, dandruff, pollutants, and other materials.<sup>26</sup>

Phytoconstituent: 1. Alkaloids 2.Tannins 3.Primary metabolites 4.Secondary metabolites 5.Carotenoids 6.Cardiac glycosides 7.Flavonoids 8.Saponin

## 1.Alkaloids:

Any class of nitrogenous organic compounds derived from plants that affect human physiology is known as an alkaloids class. A few alkaloids have also been reported to be present in T. procumbens. Thirty-nine alkaloids were found in an aqueous extraction of the leaves for a phytochemical screening analysis. Of these, akuamidine accounted for 73.91 percent and vacangine for 22.33%. Sterols and tannins were present in the extract along with alkaloids. T. procumbens alkaloids from the pedicle and buds showed antimicrobial activity against Proteus mirabilis and Candida albicans, and alkaloids from the buds against Trichophyton mentagrophyte and E. coli.27 For detection of the alkaloids there are some chemical test they are as follow:

1.Wagar test

2.Mayer test

## 1.Wager test:

Using wagers reagent, alkaloids produced a brown, flocculent precipitate. Wagner's adjuvant: - In 5 milliliters of distilled water, once 1.27 grams of iodine and 2 grams of KI had been dissolved, 100 milliliters of the mixture had been added.

## 2.Mayer test :

The acidified plant extract received a drop or two of Mayer reagent added to it. A white precipitate was an indication that alkaloids were present.

## The adjuvant of Mayer:

A mixture of 1.36 g of dissolved HgCl2 in 60 ml of distilled water and 5 g of KI in 10 ml of water was used. When this reagent is combined with HCl or H2SO4, the solution becomes noticeably acidic because it only reacts with the alkaloid's salts.<sup>28</sup>

## 2.Tannis:

Tannins are water-soluble polyphenols that are naturally present in plants. Tannins may have these qualities due to their antioxidant capacity, as well as their anti-mutagenic and anti-carcinogenic qualities. Tannins have been identified in T. procumbens by a number of researchers. Water and acetone or water and chloroform revealed that T. procumbens leaf extracts contained tannins. The pedicle and buds of Tridax procumbens contain tannins.

Plants naturally contain water-soluble polyphenols called tannins. Perhaps as a result of their antioxidant qualities, tannins have antimicrobial, anti-carcinogenic, and anti-mutagenic qualities (Chung et al., 1998).<sup>29</sup>

## **3.Primary metabolites:**

All plants include primary metabolites that are a part of metabolic pathways. Several distinct primary metabolites have been isolated from Tridax Procumbens. In living things, lipids are necessary because they affect cellular composition, intercellular communication, and the organism's ability to obtain energy. Common fats found in the Asteraceae family are present in T. procumbens. Additionally, this species has certain lipids that offer the plant special qualities and intriguing potential medical applications<sup>30</sup>

#### 4.Secondary metabolites:

Plants create substances known as secondary metabolites, which are crucial for defense mechanisms, communication, stress reactions, and other aspects of plant life but are not necessary for the plant's regular growth and development. Bioactive substances found in secondary metabolites frequently have significant and helpful therapeutic qualities. Minerals, fat-soluble chemicals, nitrogenous organic compounds, glycosides, and polyphenolic compounds contain some of the most significant bioactive substances for therapeutic applications. antecedents' subsequent metabolites.<sup>21,29</sup>

### 5. Carotenoids:

Carotenoids are fat-soluble pigments that are primarily used by plants for three purposes: collecting light, shielding against photooxidative damage, and serving as an insect magnet. It has been suggested that carotenoids shield DNA from oxidative stress. Numerous varieties of these secondary metabolites, such as beta-carotene which is necessary for the upkeep of epithelial tissues have been identified from T. procumbens. A lack of vitamin A can lead to Xerophthalmia, night blindness, and compromised immune system and hemopoiesis. Beta-carotene and lutein are two carotenoids that have demonstrated efficacy in reducing UV-induced erythema. The antioxidant characteristics of carotenoids have also been connected to their photoprotective qualities.<sup>29</sup>

## 6.Cardiac Glycosides:

It contributes significantly to the anti-inflammatory action. cardiac glycosides, including digitalis, digoxin, and digoxin.<sup>30</sup>

## 7.Flavonoids:

T. procumbens was found to contain flavonoids, which are known to mediate pharmacological effects such as anticancer, antiviral, antifungal, antibacterial, antiulcer, antiplatelet aggregation, antiinflammatory, antiallergic. These are the some phytoconstituent present in the Tridax Procumbens.<sup>31</sup>



Fig.9: Different Structure present In T. Procumbens

#### Structure of some Flavonoids Present in Tridax Procumbens:





# **CONCLUSION:**

In Ayurveda, this plant has long use medicinally different types of illnesses. In addition to a variety of chemical constituents like alkaloids, flavonoids, tannins, and carotenoids, research has demonstrated that Tridax procumbens exhibits a range of biological properties, including anti-inflammatory, antiparasitic, antibacterial, analgesic, antidiabetic, wound healing activity, and hepatoprotective properties. On Tridax procumbens, studies in photochemistry, fluorescence, and pharmacognosy were carried out. These studies demonstrate the wide variations in the active ingredients found in these drugs. When choosing actual medications, the values presented in this study will be very beneficial. The current study offers important new information about the medicinal potential of this herbal remedy by concentrating on its pharmacological activity, therapeutic applications, and chemical constituents. One common weed in the Compositae family is Tridax procumbens Linn. Its entire composition is beneficial due to its pharmacological activity. It has recently come to light that this herb is also crucial for defluoridation; in areas like India where the natural concentration of this mineral in ground water is high, it can be used to defluoridate water at a low cost. The goal of the plant T. procumbens studies was to isolate different kinds of compounds with a range of pharmacologic characteristics in order to develop novel therapeutic agents. Consequently, there is a ton of space. Strong antibacterial activity is shown by the methanolic extract of Tridax procumbens (L) flowers against S. Aureus and E. coli. However, gram positive bacteria, such as Staphylococcus aureus, are more susceptible than gram negative bacteria, such as Escherichia coli.

Tridax procumbens Linn. shows great promise in terms of its botanical, phytochemical, nutritional, and pharmacological qualities. As the review study and explanation above demonstrate, the Tridax Proucumbence widely use in the anicient medical system to treatment a wide range of biological disorders. It also has several noteworthy phytopharmacological properties, which are briefly covered in the review article. Future research on the plant's additional pharmacological properties and the clarification of its mode of action has a plethora of opportunities.

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