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A Review On Tridax Procumbeans .

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ABSTRACT :-
Tridax procumbens, commonly known as coatbuttons
[1] Or tridax daisy, is a species of flowering
Plant in the family Asteraceae. It is best known as a widespread weed and pest plant. It is native
To the tropical Americas, but it has been introduced to tropical, subtropical, and mild temperate Regions worldwide.
It shows a number of pharmacological activities like hypotensive, insecticidal, leishmanicidal,
Hair growth promoting, wound healing, anti-inflammatory, hepatoprotective and immunomodulatory, which have
Been screened scientifically. This is an attempt to compile and review them in order to highlight its medicinal
Importance.

Keywords:-
Tridax Procumbent, Pharmacological Action, Medicinal Benefits, Anti-inflammatory, Anti-diabetic, Immunomodulatory, Drug Actions.

I. INTRODUCTION:-

Tridax procumbens
The plant bears daisylike yellow-centered white or yellow flowers with three-toothed ray florets.

The leaves are toothed and generally arrowhead-shaped. Its fruit is a hard achene covered with Stiff hairs and having a feathery, plumelike white pappus at one end. Calyx is represented by Scales or reduced to pappus. The plant is invasive in part because it produces so many of these Achene's, up to 1500 per plant, and each achene can catch the wind in its pappus and be carried Some distance. This plant can be found in fields, meadows, croplands, disturbed areas, lawns, and Roadsides in areas with tropical or semi-tropical climates. It is listed in the United States as a Noxious Weed and regulated under the Federal Noxious Weed Act.

Picture:-

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Synonyms:-

- English -coat buttons
- Sanskrit -jayanti Veda (जयंती वेद)
- Hindi, - Tridhara
- Marathi -जखमजुडी& टनटनी)

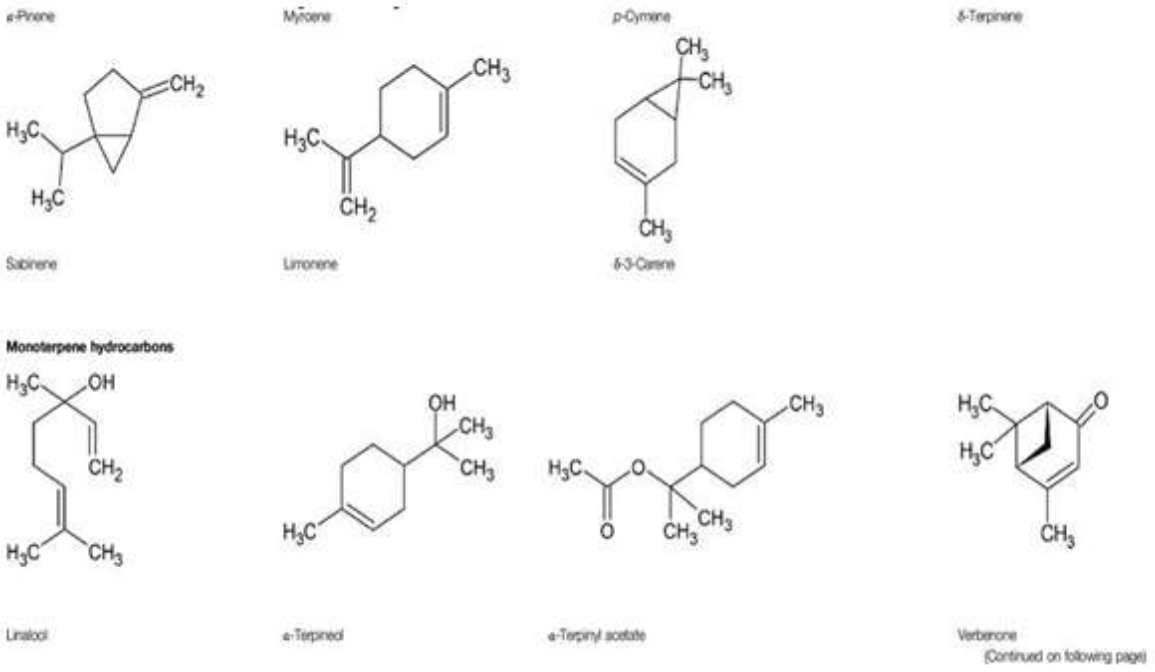
Scientific Information:-

- Scientific Name : Tridax Procumbeans.L
- Family: Asteracea
- Genus: Tridax
- Species: T. procumbens

Chemical Constituents:-

Tridax Procumbeans having included chemical Constituents
Compound Percentage Identification
Limonene - 8.3 %
trans-Decahydro naphthalene - 1.7 %
Linalool - 3.3 %
Trans-Vertocitral - 1.8 %
β-Pinene oxide - 2.4 %
α-Terpineol - 1.7 %
Methyl chavicol -3.4 %
(E)-Anethole - 1.6%
(E)-β-Damascenone - 1.4 %
(E)-α-Ionone - 2.6 %
(E)-β-Ionone - 1.2 %
α-Selinene - 15.3 %
β-Bisabolene - 1.0 %
epi-Longipinanol - 1.5%
Humulene epoxide II - 2.3 %
Cedr-8(15)-en-9-α-ol - 1.9 %
Zerumbone - 4.3 %
(Z)-β-Curcumen -- 2.6 %
Cyclopentadecanolide - 2.8 %
(Z)-Falcarinol - 25.9%
n-Tricosane - 3.6 %
Monoterpene hydrocarbons - 8.3 %
Oxygenated monoterpenes - 7.4 %
Sesquiterpene hydrocarbons - 16.3 %
Oxygenated sesquiterpenes - 12.6 %
Phenyl derivatives - 12.0 %
Others- 34.0 %

Structures:-



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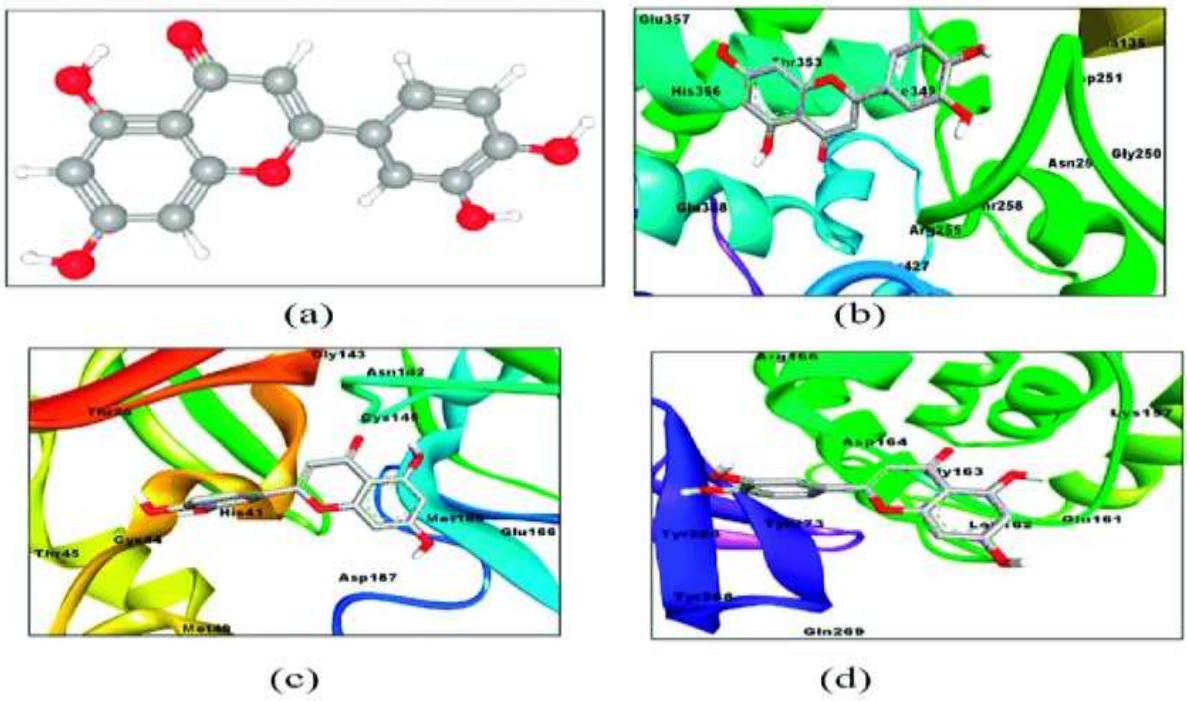

(a) (b) (c) (d)

Cultivation and Collection:-

Tridax procumbens, commonly known as coatbuttons[1] or tridax daisy, is a species of flowering plant in the family Asteraceae. It is best known as a widespread weed and pest plant. It is native to the tropical Americas, but it has been introduced to tropical, subtropical, and mild temperate regions worldwide. It is listed as a noxious weed in the United States and has pest status in nine states.[2]

Methods of extraction:-

Tridax procumbens. The method recommended by NIPRD (2009) was employed for the extraction of the leaves of Tridax procumbens [11]. Briefly, the leaves were plucked from the stem and dried at room temperature 28 ± 2°C for three weeks. The dried leaves were crushed and grinded using blender.

Pharmacological and Medicinal Activities :-

1) Clotting Activity

. procumbens extract 200 mg/µg IP injected to experimental rabbits, reduced normal heparin induced prolongation of clotting time (Kanungo et al., 1995).

2)Wound Healing activity

Aqueous extract of Aloe vera (leaves), Aegle marmelos (root root bark), Moringa olifera (root and rootbark) and T. procumbens (leaves) not only promoted healing but also overcame steroid depressed healing in experimental male wistar rats. The increased lysyl oxidase activity induced by the preparation has been suggested to be responsible for wound healing activity. The increased nucleic acid level indicates the action at cellular level (Udupa et al.,1991a)

3) Cardiovascular effect

Cardiovascular effects

The cardiovascular effects of aqueous extract from leaf of T. procumbens were investigated on anaesthetized Sprague-Dawley rat. The IV administration of 3, 6, and 9 mg/kg of aqueous extract caused significant decrease in mean arterial blood pressure in a dose related manner. Higher doses of drug also cause significant reduction in heart rate. The hypotensive and Bradycardiac effects were immediate. The hypotensive effect was inhibited by pretreatment of animal with atropine sulphate (1 mg/kg). The mechanism of

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action is possibly through activation of muscarinic cholinergic

4) Hepatoprotective Effect:-

Hepatoprotective effect of ethanolic extract of arial Parts of T. procumbens and its chloroform soluble and Insoluble fractions were studied on acute hepatitis Induced in rats by single dose of carbon tetrachloride. Acute and chronic models of hepatic damage were Studied recording morphology, metabolic, histological And biochemical parameter. T. procumbens demonstrated Antihepatotoxic action justifying its use in liver Affection. Only the ethanolic extract and chloroform Insoluble fraction exhibited hepatoprotective activity.

5) Antimicrobial activity:-

A detailed biological screening comprised of gram Positive and gram negative bacteria, yeast and fungi Using crude extracts of this plant were undertaken. The n-hexane extract of the flowers showed activity against E. coli. The same extract of whole arial parts was active Against Mycobacterium smegmatis, E. coli, Salmonella Group C and Salmonella paratyphi. The ethyl acetate Extract of the flowers was active against Bacillus cereus And Klebsiella sp. The arial parts extract also showed Activity only against Mycobacterium smegmatis and Staphylococcus aureus, while the aqueous extract Showed no antimicrobial activity. None of the tested Extracts was active against yeasts, Candida albicans, Candida tropicalis and Rhodotorula rubra; or the Fungi: Aspergillus flavus, Aspergillus Niger, Mucor sp. And Trichophyton rubrum (Taddei and Rosas-Rome

6) Anti-inflammatory activity

The aqueous extract of T. procumbens leaves was Lyophilized and studied on the excision wound model, Rat skin fibroblast and rat paw oedema. T. procumbens Did not significantly increase the fibroblast could Compared with ibuprofen. Wound contraction was Compared in the T. procumbens and ibuprofen treated Groups. Epithelialization was significant in T.
Procumbens group. The aspirin treated group showed Significant retardation in both parameters. The Fibroblast cell count, hydroxyproline/DNA ratio Collagen synthesis was insignificant in the control and T. procumbens treatment while ibuprofen and aspirin Treatment had a significant effect on the above Mentioned parameters. In the carrageenan induced Oedema model, inhibition of Oedema was comparable In 200mg/kg Tridax procumbens and 50mg/kg ibuprofen Treatment and the specific activity of the enzyme Gamma glutamyl transpeptidase was comparable in the Tridax procumbens, ibuprofen and aspirin

7) Immunomodulatory Activity :-

The immunomodulatory properties of ethanol insoluble Fraction of aqueous extract of T. Procumbens have been Investigated. After IP administration of TPEIF in doses Of 0.25 and 0.5 g/kg body weight (BW) a significant Increase in phagocytic index, leucocyte count and Splenic antibody secreting cells was noticed. Stimulation of humoral immune response was further Observed with elevation in heamagglutination antibody Titer. Heightened delayed type hypersensitivity reaction Suggested convincing evidence for activation of cellular Immune system. Protective action of herbal medicine In case of anaphylactic shock was also studied. In Addition, elicitation of specific antibody titer against Tetanus toxoid (TT) challenge was measured in order To explore the possible use as adjuvant along with Clinical vaccination program to reduce number of Non-responders. The results suggest that TPEIF Influences both humoral as well as cell mediated Immune system vis-à-vis assists in genesis of improved Antibody response against specific clinical antigen

Uses :-

Medicinal uses

Aqueous leaves extract posses cardiovascular effect and Significantly reduces heart rate and blood pressure. Lyophilized aqueous leaf extract showed anti- Inflammatory action comparable to ibuprofen and Aspirin. Whole arial parts have hepatoprotective, Antisecretory (antidiarrhoeal) activity. It is active Against bacteria, protozoa and fungi. Leaf juice is useful n dead space wound healing. Seeds are used to check all types of bleeding. Aqueous extract of whole arial part is used as immunomodulator. Dry extract showed antibiotic activity even when formulated in mineral base. antioxidant Ascorbic acid (Agrawal et al. 2009).

II. DISCUSSION AND RESULT:-

Tridax procumbens contains a number of valuable constituents such as flavone glycoside, chromone glycoside, bithiophenes, flavonoid (Procumbenetin), sterols, terpenoids, lipids and polysaccharides with significant pharmacological activities such as hypotensive, hepatoprotective,

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anti-inflammatory, antidiarrhoeal, wound-healing, insecticidal, leishmanicidal and hair growth promoting activities. Apart from this, it also possesses antimicrobial and immunomodulatory action, which provides the basis for further studies.

III. CONCLUSION:-

Tridax procumbens is most important it have lots of Benefits in Medicinal Aspects.
These are playing very vital role in different mentioned Diseases.
This we are obtained very easily by different mentioned methods and Different Skills.
Luteolin Is most benificial components taken from Tridax procumbens this was playing role in as anti-cancer drug .
Like wise have many uses in different aspects
This drugs are working with very less side effects
Because it was Natural in nature.

Review evidence indicates that Tridax procumbens Linn. is a potent medicinal plant. Bothphytochemically and pharmacologicallyAsevidenced by conventional medical systems. each elementphytochemical, plant & histopathological research revealssites and sources of phytomolecules are presented. TridaxProcumbens demonstrates the existence of numerous valuableVarious components, including flavone glycoside, glycoside flavonoid (Procumbenetin), terpenoids, sterols, and bithiophenepharmacologically important lipids and polysaccharidesactions like wound healing and antibacterialcardiovascular, diabetic-prevention, liver-protective, and anti-insecticidal, anti-inflammatory, antioxidant,Leishmanicidal and cancer-fighting properties,antitubercular efficacy and immunomodulatory activity, whichlays the groundwork for the discovery and development of newphytochemical effective in the treatment of both acute and chronic diseaserational issue on a global scale. Compared to a man-made moleculenew field of study to create novel active phytomolecules.

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