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A REVIEW OF *TRIDAX PROCUMBENS* AND ITS ACTIVITY

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Abstract— *Tridax procumbens* (*T. procumbens*) is also known as coat button or tridax daisy. It is the widespread weed and also a pest plant in tropical and subtropical. *T. procumbens* was used as a traditional medicine in wound healing, antifungal, antibacterial, insect repellent all over the world. The raw leave extract of *T. procumbens* is used as a best for wound healing as a Ayurvedic medicine in India.

Keywords— *Tridax procumbens*, Ayurvedic medicine

I. INTRODUCTION

Tridax procumbens (*T. procumbens*) is belong to Asteraceae family. It's a annual and perianal weed, widespread throughout India. It has bisexual flower with white headed flower and the whole plant has the activity of wound healing, antifungal, antibacterial, insect repellent, and antimalarial. The main aim of the review is to enrich the knowledge about *Tridax procumbens* and its activity.

SCIENTIFIC CLASSIFICATION

Kingdom : Plantae
Order : Asterales
Family : Asteraceae
Genus : *Tridax*
Species : *procumbens*

II. TRADITIONAL USE

The whole plant *T. procumbens* is used as a raw medicine for protozoal infection, chronic ulcer, diabetes, insect repellent, wound healing, and inflammation, jaundice, anti-malarial, antibacterial, and anti-fungal. Flavonoids which found in the whole tridax plant act as a best anticoagulants and wound healing.

III. ANTICOAGULATION ACTIVITY

200 mg/ μ g of *T. procumbens* is injected to rabbit, result in prolongation of clotting time by reduce the production of heparin.

IV. WOUND HEALING ACTIVITY

Extraction of *T. procumbens* increased the lysyl oxidase activity, protein content, and breaking strength which helps in promoting wound healing. It increased the interaction between epidermal and dermal cells.

The tridax extract also increased the glycosaminoglycan level as it increased the protein and nucleic acid content.

V. ANTIOXIDANT ACTIVITY

Methanol was used as a solvent to extract the aerial part of the plant and subjected to DPPH assay. The extraction on the solvents Ethyl acetate and n-butanol showed better antioxidant result when compared to the standard Ascorbic acid.

The ethanolic extract of tridax shows 96.70% of antioxidant where standard gallic acid and ascorbic acid shows 92.92% and 94.81% respectively.

VI. INSECTICIDAL ACTIVITY

The oil of tridax is used as strong insect repellent against house flies, mosquito's larvae, cockroaches, and *Dysder cussimile*. It is observed that tridax is neither attacked by insects and cattles.

VII. ANTIMALARIAL ACTIVITY

The oil of tridax shows relatively high antimalarial activity against *Anopheles stephensi* when compared to their two plants *I. cairica*, *M. charantia*. Clear dosage relationship



was established in all essential oils, with highest concentration of 6%.

VIII. HAIR GROWTH PROMOTING ACTIVITY

The ethanolic extract of aerial part of the plant was administered to albino rat as 10% ointment and also as orally 100g/kg for about 20 days and the both treat showed good results. The petrol fraction of the extract shows a more effective when compared to other fraction extract.

IX. ANTIPROTOZOAL ACTIVITY

Extract of 13 plant was subjected against protozoal infection, were evaluated *in vitro* against epimastigotes and tripogmastigotes and *in vivo* against tripogmastigotes of that *tridax* shows best antiprotozoal activity.

X. LEISHMANICIDAL ACTIVITY

The Methanol extracts prepared from different parts of 18 plants collected and evaluated in an *in vitro* bioassay for leishmanicidal activity against *Leishmania mexicana* promastigotes. The ten most potent plant extracts ($IC_{50} < 50 \mu g/ml$) were *Aphelandra scabra* leaves, *Byrsonima bucidaefolia* bark, *Byrsonima crassifolia* bark, *Clusia flava* leaves, *Cupania dentata* bark, *Diphysa carthagenensis* leaves, *Dorstenia contrajerva* whole plant, *Milleria quinqueflora* roots, *Tridax procumbens* whole plant, and *Vitex gaumeri* bark.

XI. ANTI-INFLAMMATORY ACTIVITY

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 at 200 mg/ kg

XII. CONCLUSION

Although *Tridax procumbens* is type of weed plant it has many useful above discussed properties and activities. The above properties clearly show that it has both immunological and pharmaceutical properties. Some of the beneficial activity are yet to clear about this plant.

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XIV. REFERENCE

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