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# A Review On : Therapeutic Effect Of Tribulus Terrestris

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**ABSTRACT**

Tribulus terrestris is commonly known as gokhru, or puncture vine. as a herbal remedy as shown beneficial stimulative effect in human and animal experiments. For a many time all over the world some cultures like Chinese and Indian system of traditional medicine for treatment of various diseases. Tribulus terrestris (Family- zygophyllacae), its potential used in tribulus terrestris. it's used in treatment and prevention of various diseases and important in medicinal uses. Pre clinical indicates that Tribulus has anti-diabetic, anti-hypertensive, cardio tonic, nervous system tonic , anti-bacterial and hypolipidemic, anti-urolithic, anticarcinogenic activities, analgesic, anti- spasmodic, and absorption enhancing, anti-carcinogenic. T.Terrestris plant is mainly used to cure eye and skin disorders, dizziness, Kidney stones, and male sexual problems, boost digestive health, high blood pressure, high cholesterol etc. Its mainly growing in warm regions.

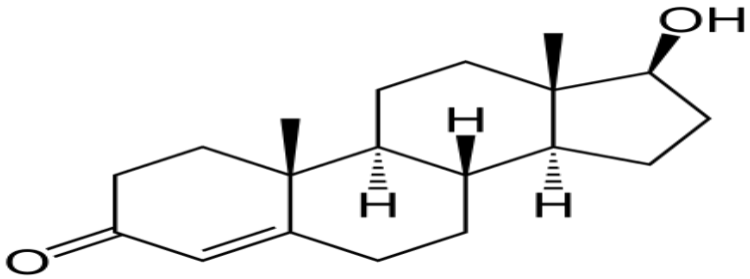
**DESCRIPTION**

It is a tap rooted herbaceous plant. TT stem diameter 10cm to over 1m, 5 sepals, flowers are 4-10mm and yellow in colour. Its blooming time is April through October. Flowers are converted into fruits on each branch lots of fruits this is a particular Terrestris plants are able to create a whole colony and they can grow. For particular one branch only typical spiny fruits and these fruits releasing the seeds this are create high energy level in the body.

**INTRODUCTION**

This plant prefers Loamy and heavy soils. Its used in boosting hormones in women and men. Its naturally occurring steroid Furostanal saponins which boost the testosterone Harmone. Leaves, steam, roots, fruits are used for the kidney diseases. Protodioxane in boost the nitric oxide production. sometime increase the nitric oxide production in the male then male genital parts provide the proper blood supply. T.terrestis are the Chinese system of medicine and ayurveda in india. for treatment of edema, sexual dysfunctions. T. Terrestris is edible in leaves and plants are useful in medicinal purposes. This plant is possibly safe but most peoples when take at 750-1500 mg daily dose upto 90days. Side effects are usually diarrhea, cramping, stomach pain.

This plants are commonly grown in South Africa, Asia, Sri Lanka, India, china in the warm temptretures. However the importance of T.Terrestris Athletes used in this plants as a enhancers of




testosterone Harmone for increasing the performance levels in the games. This plant are used to control the blood pressure level.

Testosterone Harmone structure

(A)Leaves and flowers (B) fruits

(C)Dried fruits (D) powder extract

(A) plant of Terrestris yellow colour flower.(B) green colour fruit (C) fruit (D) fruit powder extract of T.terrestris. Tribulus Terrestris is a herbaceous plant. that grows as summer annual in temperate climates.

**HISTORY**

Tribulus terrestris is a small leafy plant. Its grown in dry places and tropical regions. It is an annual plant. Is the national flower of UAE. Has been used for long time in indian and Chinese. People use the leaf, root, or fruit of Tribulus terrestis as medicine. and also includes other ingredients.

**TEXONOMICAL CLASSIFICATION**

Kingdom : plantae

Division : phanerogams

Subdivision : Angiospermae

Class : Dicotyledonae

Subclass : polypetalae

Order : Giraniales

Series : Disciflorae

Family : Zygophyllaceae

Genus : Tribulus

Species : Terrestris Linn

Local name : sarata

Botanical name : Tribulus Terrestris

Parts used : whole plant

**PLANT PROFILE**

Warm regions. It's Not grow in any shade, its grow in waste place and roadside areas.

| | |
|---|---|
| Indian (language) | T.terrestris |
| Bengali | Gokshura,Gokhri |
| Gujrati | Nana gokharu,<br>Mithogokharu,<br>Betha gokharu, |
| English | Caltrops root, puncture vine |
| Assamese | Gokshura, Gokshurkata |

| | |
|---|---|
| Kannada | Neggilamullu, Sannaneggilu, Neggilu |
| Hindi | Gokharu |
| Marathi | Gokharu, Sarate |
| Oriya | Gokhyura, Gukhura |
| Malayali | Nerinjil |
| Tamil | Nerinjil, Nerinjil |
| Telugu | Palleruveru |
| Punjabi | Bhakhra, Gokhru |

**CHEMICAL CONSTITUENTS**

The phytochemical study of T.Terrestrine revealed the presence of alkaloids, tannins, saponins, flavonoids. The Tribulusterine, beta carboline alkaloids is present in fruits in the minor quantities. Diosgenin, Gitogenin are anti-inflammatory, Resin, flavonoid, Tribuloside, Tribulusterine, Terrestriamide are diuretic, anti-inflammatory resolvent.

**POTENTIAL ABILITY OF TRIBULUS TERRESTRIS**

**1)ANTI HYPERTENSIVE DRUGS**

Tribulus has angiotensin converting enzyme (ACE)- inhibition activity. Therefore may have an additional Hypertensive effect clinical relevance is not known.

**2)ANTI DIABETIC ACTIVITY**

Diabetes mellitus is a Metabolic disorder with chronic hyperglycemia, and Which results from a defect in insulin action And secretion. These are significantly reduced the level of serum triglyceride, serum superoxide dismutase activity, serum glucose, serum cholesterol this activity found to be increased in I looked in induced diabetic mice. this decoction showed the Inhibition of gluconeogenesis the mice. Streptozotocin induced diabetic rates by inhibiting oxidative stress.These are beneficial for the treatment of lowering the blood glucose level and anti oxidant mechanism.

**3)ANTI INFLAMMATORY ACTIVITY**

This T.T is one of the beneficial plant for the inflammatory diseases. Tribulus Terrestris extract suppressed the meditators of pro inflammatory cytokines for example, interleukin (IL-)-4,and tumor necrosis factor alpha (TNF-alpha) in macrophage cell. This T.T showed a Dose dependent for inhibition of raw paw volume in the carrageenan induced inflammatory activity in the rats.

**4) IMMUNOMODULATORY ACTIVITY**

Various solvent systems used for extraction of saponin isolated from the fruits of TT demonstrated those dependent and fruit shows increase in phagocytosis. The alcoholic extract of whole plant of TT enhanced significant dose dependent and increase in humoral antibody. And delayed type of hypersensitivity responsible for increased specific immune response.

**5) ANTI-BACTERIAL ACTIVITY**

All parts (steam, roots, fruit, and leaves) of ranian and Turkish
T.Terrestris Potential antibacterial properties. Against
Staphylococcus aureus, Enterococcus aureus, pseudomonas aeruginosa, Escherichia coli. The methanolic extract of fruits of TT was found to be against gram positive and gram negative bacteria, This activity was Observed in chloroform extract, and petroleum ether extract.

**Conclusion**

Tribulus terrestis plant Could have herbal medicine for the effective blood pressure control due to its diuretic activity (potassium sparing), cardioprotective activity, and antihyperlipidemic activity. This pharmacological activities focused on improving the cardiotonic properties and sexual function. Investigation showed that steroidal saponins and flavonoids with the anti inflammatory and anti aging activities and contributors to the pharmacological activities. This TT achieving the status of medicine or prescribed as a dietary supplement in various disease conditions. And investigation for development of new herbal medicine and health products.

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