

MEDICINAL USE OF ATIBALA (*Abutilon Indicum* L): A AYURVEDIC REVIEWDr. Vikram Sidh*¹ and Dr. Omprakash Sharma¹PG Scholar Deptt of Dravyaguna.²Professor Deptt of Dravyaguna.

*Corresponding Author: Dr. Vikram Sidh

PG Scholar Deptt of Dravyaguna.

Article Received on 03/05/2018

Article Revised on 24/05/2018

Article Accepted on 14/06/2018

ABSTRACT

The Herbal Atibhala - *Abutilon Indicum* (Linn.) is belonging to malvaceae family; Also known as Mallow in english, *Abutilon indicum* is used as a medicinal plant. It has been reported that *Abutilon indicum* has Anti inflammatory and Anti-proliferative activity, Anti-Arthritic activity, Analgesic and Sedative property, Antioxidant and Antimicrobial activity, Hepatoprotective activity, Anti diabetic, Anti cancer, Anti diarrhoeal, Anti-convulsant, Larvicidal, Wound healing, Anti asthmatic, Diuretic, Immunomodulatory and Anti-estrogenic activity. It is proved that this plant contains carbohydrates, proteins and amino acids, saponins, flavanoids, glycosides, phytosterols and phenolic compounds.

KEYWORDS: *Abutilon indicum*, Anti-proliferative activity, Anti asthmatic, Hepatoprotective activity, Phenolic compounds.

INTRODUCTION

Synonyms: Rishyaprokta, Kankatika, Balika, Rishagadha, Bhuribala.

Vernacular names:

Tamil : Perum Tutti, Paniyara Hutti, thuthi
Bengali : Petari, Jhapi
Marathi: Mudra
Gujarati: Khapat, Dabali, Kamsaki
Malayalam: Vellula
Arabian: Masthul Gola
English: Country mallow
Hindi: Kanghi, Kakahi
Kannada: Tutti
Telugu: Tutturu Benda, Duvvenakaya, Duvvena Kayalu
Farsi: Darakhtashaan

Common Name: *Abutilon*, Indian mallow.

Habitat: Present in sub-Himalayan tract and hills up to 1,200 m and hotter parts of India.

Traditional applications: It is useful in gout, tuberculosis, ulcers, bleed-ing disorders, and worms. It can be used as Digestive, laxative, expectorant, diuretic, astringent, analgesic, anti inflammatory, anthelmintic, demulcent and aphrodisiac. Decoction used in toothache and tender gums. Demulcents of leaves are locally applied to boils and ulcers. Roots are prescribed in fever, chest affection and urethrities

Abutilon indicum (Linn.) is three meter in height. Traditionally, Root and bark are used as aphrodisiac, anti diabetic, nervine tonic, and diuretic. Seeds are used in urinary disorders. The seeds are used as a laxative in piles and in the treatment of cough. The Phytochemical investigation of *A. indicum* leaves showed the presence of amino acids, glucose, fructose and galactose. From the roots, non-drying oil consisting of various fatty acids viz. linoleic, oleic, stearic, palmitic, lauric, myristic, caprylic, capric and unusual fatty acid having C₁₇ carbon skeleton, sitosterol, and amyirin from unsaponifiable matter were yielded.

Anti diarrhoeal activity

Leaf extracts of *Abutilon indicum* were evaluated for anti-diarrhoeal activity by gastro-intestinal motility, castor oil-induced diarrhoea. The methanolic and aqueous extracts showed significant anti diarrhoeal activity in castor oil-induced diarrhoea and prostaglandin E₂- induced diarrhoea. These extracts reduced diarrhoea by inhibiting intestinal peristalsis; gastrointestinal motility and PGE₂ induced enteropooling.

Anti convulsant activity

The ethanolic extract was found to increase the onset of clonic convulsions and decreased onset of tonic seizures and thus exhibited a significant anti-convulsant effect. The aqueous extracts showed significant protective effect by increasing the onset of clonic convulsion time and decreasing extensor time as compared to control group. This anticonvulsant effect was attributed to linoleic acid and/or flavonoid constituents present in the extracts.

Larvicidal activity

Larvicidal activity of crude hexane, ethyl acetate, petroleum ether, acetone and methanolic extracts of *Abutilon indicum* were assayed for their toxicity. All extracts showed moderate larvicidal effects. But highest larval mortality was found in petroleum ether extract. Furthermore, ¹H NMR, ¹³C NMR and mass spectral data confirmed the identification of β -sitosterol as a potential new mosquito larvicidal compound with LC₅₀ value of 26.67 ppm against *C. Quinquefasciatus*.

Diuretic activity

Seed extract of *Abutilon indicum* (200 and 400 mg/kg) were evaluated for its diuretic effect. The extract at doses of 200 and 400 mg/kg produced significant dose dependant increase in urinary excretion and urinary sodium loss but no effect on intrinsic potassium sparing effect.

Immunomodulatory activity

immunomodulatory activity of ethanolic and aqueous extract of leaves of *Abutilon indicum* (200 mg/kg and 400 mg/kg) by hemagglutination antibody (HA) titre, delayed type hyper-sensitivity (DTH), neutrophil adhesion test and carbon clearance test. It also showed significantly potentiated DTH reaction and increase in percentage neutrophil adhesion test. The results of the study reported that both the extracts were found to have a significant immunostimulatory activity.

Anti estrogenic activity

The anti-estrogenic effect of methanolic extracts of *Abutilon indicum* on uterotropic and uterine peroxidase activities in ovariectomized rats. This extract was found to cause significant suppression of enzyme activity as well as uterotropic response induced by estradiol, whereas in the group, not treated with estradiol, a marginal stimulation in peroxidase activity was observed.

CONCLUSION

Abutilon indicum have many more pharmacological properties like, hepatoprotective, wound healing, immunomodulatory, analgesic, antimalarial, antimicrobial, hypoglycemic activity. The main chemical constituents are carbohydrates, steroids, glycosides, flavonoids, tannins and Phenolic compounds. Hence this review article, effort has been taken to collect and compile the details notes on *Abutilon indicum* which will be useful to the society to venture into a field of alternative systems of medicine.

REFERENCES

1. Charak Samhita, Acharya Vidyadhar shukla & Prof. Ravi Dutt Tripathi Chaukhambha Sanskrit Pratishtan Delhi Reprint, 2006; 1: 340.
2. Chuneekar K.C. and Pandey G.S. Bhav Prakasa Nighantu, Chaukhambha Bharati Academy, Varanasi. Reprint, 2006; 94-96.

3. Charak Samhita, Acharya Vidyadhar shukla & Prof. Ravi Dutt Tripathi Chaukhambha Sanskrit Pratishtan Delhi Reprint, 2006; 1: 73,74.
4. J.L.N. Shastry, illustrated Dravya guna Vigyan Vol. 2. Chaukhambha Orientalia, Varanasi. Edition, 2010; P. 276.
5. Prof. P.V. Sharma Dravya guna Vigyan Vol. 2 Chaukhambha Bharati Academy, Varanasi, P. 296.
6. Prof. P.V. Sharma, Dhanwantri Nighantu commentry, Chaukhambha Orientalia, Varanasi, P.P. 27.
7. Kaladhar DSVGK, Swathi Saranya K, Varahalarao Vadlapudi, Nagendra Sastry Yarla. Evaluation of Anti-inflammatory and Anti-proliferative Activity of *Abutilon indicum* L. Plant Ethanolic Leaf Extract on Lung Cancer Cell Line A549 for Sys-tem Network Studies. Cancer Science and Therapy, 2014; 6(6): 188-94.
8. Deepraj paul, Karthika paul, Anuradha TS. Evaluation of hydroalcoholic extract of aerial parts of *Abutilon indicum* for its analgesic and sedative property Deepraj Paul *et al.* Int. Res. J. Pharm., 2013; 4(5): 216-8.