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**CUSCUTA REFLEXA ROXB: A REVIEW**

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**ABSTRACT**

*Cuscuta reflexa* Roxb is commonly known as Aftimoon and Kasoos in Unani system of medicine and *Amarvalli* in Ayurveda. It is a leafless thread like twinning, parasitic climber herb found all over India up to 3000 meters of altitude. It has been used by Unani scholars since antiquity for the treatment of various psychological, skin and neurological disorders. Various phytochemical researches reported that *Cuscuta reflexa* Roxb contains important chemicals like Cuscutin, Cuscutilin, Bergenin, Kaempferol, Amarbelin, β-Sitosterol, Oleane series and Sterol glycosides by virtue of these chemicals it possesses therapeutic actions such as Cardio tonic, Antibacterial, Diuretic, Antiseptic, Diaphoretic, Purgative etc. In this article the classical Unani as well as modern literature of Aftimoon (*Cuscuta reflexa*) is reviewed.
INTRODUCTION:
*Cuscuta reflexa* Roxb is leafless yellowish green, thread like twinning herb. It is well known as *Aftimoon* in Unani system of medicine and being used since antiquity as a drug of choice for the disease caused by derangement of Sauda (black bile). The plant is distributed throughout India, Ceylon and Malaya. It has no root under the ground but only grows as parasite on other plants. It possesses important medicinal properties like deobstruent [1, 2], demulcent, resolvent, carminative and anthelmintic [3]. It is therapeutically used in the treatment of epilepsy, paralysis, facial palsy, arthritis, worm infestation and jaundice etc [1]. It is one of most the important drugs being used extensively for treatment of various diseases as single drug. *Aftimoon* is also an important ingredient of several compound Unani formulations such as *Itrifal Aftimoon, Itrifal Ustukhuddus, Itrifal Mushil* and *Majoon Ushba* etc which are used in various neurological, psychological and skin disorders. Many chemical constituents have been isolated from *Cuscuta reflexa* such as cuscutin, amarbelin, beta-sterol, stigma sterol, kaempferol, dulcitol, myricetin, quercetin, coumarin and oleanolic acid etc [4]. Different pharmacological studies have reported important action of the plant like hepatoprotective, antibacterial and antitumour activities etc.

**Botanical Name:** *Cuscuta reflexa* Roxb [5, 6, 7]

**Family:** Convolvulaceae, [5, 6, 8, 9, 10, 11, 12, 13] Cuscutacee [8,10]

**VERNACULAR NAMES**

**Arabic:** Aftimoon [6,14] ; **Bengali:** Algussi [2,6] ; **English:** Dodder [2,6,7,8,913,15] ; **Gujarati:** Amerbel [2,7] ; **Hindi:** Akash bel [2,6] ; **Telugu:** Sitana pugonalu [2,13,16,17] ; **Persian:** Aftimoon [7], Darakht pechan [2] ; **Urdu:** Akash bel, [6,15] Aftimoon [2,4] ; **Unani:** Aftimoon, [1,3,18,19] Kasoos (seed) [4,8,9,10,11].

**HABITAT**

It is commonly found throughout India particularly in Bengal plains. It grows as a parasitic twiner on various plants like *Zizyphus mauritiana, Acacia nilotica*, grows in villages and road sides, and hence called Akaswel (Sky twiner) or Amarwel (Immortal twiner) because it grows during the rains and every year grow as a fresh plant on the same tree [9].

**MORPHOLOGY**

*Cuscuta reflexa* is leafless with very long, rather stout, closely twining and branched stem, which is pale yellowish green, sometimes dotted with red. The brownish black mature seeds are smooth, extrillate and about 0.4-0.6 mm in diameter, convex on one side and concave on the other. The seeds are devoid of any odour but have a characteristic bitter taste. The albuminous seeds contain a coiled 3-4 mm long embryo; while fleshy cotyledons are absent. Corolla campanulate, white or pinkish, scales remote from the filaments. Unripe fruits (capsule) acute, with blacks or warts [8, 14].
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Parts Used: Whole Plant [8-10,20], Seed and Stem [4, 8-9, 20]

ACTION MENTIONED IN UNANI MEDICINE

*Mufatteh Sudad* (deobstruent) [1-2, 21-23] *Mus'hile Sauda* [1-2, 9, 14, 18-19, 21, 23-26], *Muhallil* (anti-inflammatory) [1-2, 19,23], *Mus'hile Balgham* [1-2, 18, 21-22], *Mudirre Haiz* (emmenogogue) [2] *Mudirre Baul* (diuretic) [2], *Musaffie Dam* (blood purifier) [1-2, 9].

USES MENTIONED IN UNANI MEDICINE

*Falij* (hemiplegia) [1,23], *Khadar* (insensibility) [1,23], *Malekhollia* (melancholia) [2,4,18,19, ,23,25-27] *Junnoon* [1], *Bahaq Aswad* (pityriasis), *Sara* (epilepsy), [1,7,18,19,25], *Tashannuj* (spasm) [1,7,19,25,26,27,28], *Zoafe Kabid* [2,27,29], *Sartan* (cancer) [21], *Warame Kabid* (hepatitis) [2,8,27], *Khafqan suddi* [1,25], *Kaboos* [1-2,23,25], *Warame Tihal* (splenitis) [1-2,8], *Juzam* (Leprosy) [21], *Amraz Jild* (Skin diseases) [1].

ETHNOBOTANICAL DESCRIPTION

**Actions**

Cardio tonic [6], Antibacterial [30], Diuretic [7,13,16], Antiseptic [31], Diaphoretic [6-7,13,15-16], Purgative [7-9, 15-16,19,21,25,29], Astringent [7,13], Expectorant [6,13], Aphrodisiac [6,13,16], Carminative[ 6-7,9,13,16,29], Anthelmintic [2,6,7,9,13-14, 16,29].

**Uses**

Bilious disorders [6-8,14-15], Paralysis [6], Headache [6,20], Fever [6-7,9,12,15], Itching [6,7,9,15,31], Sores [8], Boil [11], Jaundice [7,13-14,29], Myalgia [13-14], Joint pain [6], Hair loss [10,12], Throat pain [20], Cough and bronchitis [13], Stomach pain [20], Rheumatic pain [11].

PHYTOCHEMICAL STUDIES

Chemical analysis of *Cuscuta reflexa* reveals that it contains Scoparone [31], Melanettin [31], Quercetin [3, 8], Hyperoside [31], Dulcitol [2-3], Leutolin [2-3,8], Cuscutin [8-9], Cuscutalin [8], Bergenin, Kaempferol [10], Amarbelin [8,31], β-Sitosterol [8], Oleane series and Sterol glycosides.

IMPORTANT UNANI FORMULATION

*Itrifal Aftimoon* [2-3], *Itrifal Ustukhuddus*, *Itrifal Deedian*, *Itrifal Ghudadi*, *Itrifal Mushil* [3], *Habbe Aftimoon* [26-27], *Majoon Ushba* [3], *Sharbat Deenar* [2,4], *Sikanjbeen Aftimooni* [4], *Sufoof Chobchini* [4].

**Dose:** 5-10 gm [1-2, 4, 9, 18, 28]

Scientific Reports

**Hepatoprotective**

It has been reported that administration of methanol extract of *C. reflexa* in hepatotoxic rats exhibited hepatoprotective effect by reducing L.F.T. markers i.e. ALT, AST and alkaline phosphates and total bilirubin levels [32].

Full Text Available On [www.ijupbs.com](http://www.ijupbs.com)
Jha Urminesh et al. reported the hepatoprotective activity of hydroalcoholic extract of *Cuscuta reflexa* Roxb against paracetamol induced hepatic damage in albino rats. The extracts of *Cuscuta reflexa* Roxb act as a hepatoprotective agent. This hepatoprotective activity of *C. reflexa* Roxb may be due to normalization of impaired membrane function of liver cell [33].

**Antiepileptic and Anticonvulsive activities**

It has been reported in experimental study that *Cuscuta reflexa* Roxb. significantly reduces the duration of convulsion in tonic seizure induced by pentylenetetrazole (30 mg/kg i.p.) in mice. It also reduces the tonic extension convulsion induced by maximum electroshock-induced convulsions [34].

**Hypoglycaemic activity**

Eram Anis et al. reported that the methanolic extract of *Cuscuta reflexa* Roxb. and its subsequent ethyl acetate fraction showed significant inhibition against α-Glucosidase. It is a membrane bound enzyme at the epithelium of the small intestine. Inhibition of this enzyme prolongs the absorption time of glucose in the blood after a meal [35].

**Antitumor activity**

The administration of chloroform and ethanol extract of the whole plant of *C. reflexa* Roxb. in Swiss albino mice against Ehrlich Ascites Carcinoma cell line, exhibited significant antitumor activity [36].

**Antibacterial activity**

It has been reported that crude ethanolic extracts of *Abutilon indicum* (Flower) and *Cuscuta reflexa* exhibit good percentage of inhibition of microbial growth of *E.coli* and *Shigella sonnei* [30].

**Antimicrobial activity**

A study was carried out to evaluate the antimicrobial activity of stems of *Cuscuta reflexa* Roxb, using ethanolic extract against Gram-positive bacteria like *Bacillus subtilis*, *Staphylococcus aureus* and Gram-negative bacteria like *E.coli*, *Pseudomonas aeruginosa* as well as on some fungal strains like *Pencillium citrium*, *Aspargillus nigar*. The results were analysed by using zone of inhibition and it was observed that Gram negative and fungal strains showed more antimicrobial activity as compared to Gram positive bacteria [37].

**Anti-HIV Activity:**

Mahmood N et al, investigate. The crude water extracts of *C. reflexa* exhibited anti-HIV activity which could be due to combinatory effects with compounds of different modes of action. The methanol extract of *C. reflexa* exhibited anti-bacterial and free radical scavenging activity [38].
CONCLUSION

_Cuscuta reflexa_ Roxb is one of the most important herbs used in Unani system of medicine since centuries. It has been subjected to various phytochemical investigations which have discovered important a variety of chemical constituents. Various experimental studies have proved its traditional claims and also explored novel therapeutic actions. However there is a need to explore other hidden beneficial potential of this plant.

REFERENCES:


