AFTIMOON --(<u>CUSCUTA REFLEXA</u>) A GEM FROM UNANI LITERATURE

1. Amena Khatoon (BUMS,MD,CCCN) Associate professor,Luqman unani medical college,Bijapur E: mail: <u>healthcross2000@yahoo.co.in</u> Ph: +919885381314

> 2. Mohd azeem(BUMS) Unani consultant, Hyderabad, E-mail:mohd-aeem60@yahoo.com

Abstract

Unani System of medicine is universal in its origin and exists into south Asian countries particularly in India. In this system most of the treatments depend upon plants. Unani Drugs consist of naturally occurring mostly herbal medicine. India has such a diverse climate that many kinds of medicinal herbs and plants are available in this country.

Cuscuta also known as dodder(aftimoon) is a parasitic plant. It has no chlorophyll and cannot make its own food by photosynthesis. Instead, it grows on other plants, using their nutrients for its growth.

Key words: aftimoon, dodder, Unani Literature

Introduction:

Cuscuta (Dodder) is a genus of about 100-170 species, <u>parasitic plant</u>. Cuscuta reflexa is a memberr of the <u>Cuscutaceae</u> family. Species of cuscuta are found almost everywhere in the world, although cuscuta is more often called dodder.

For medicinal purposes, herbalists prefer *C. epithymum* that grows on thyme.

Cuscuta is a leafless plant with branching stems ranging in thickness from threadlike filaments to heavy cords. The seeds germinate like other seeds. The stems begin to grow and attach themselves to nearby host plants.

SYNONYMS:

Sanskrit-Amaravela English-Dodder Bengali-Algusi Punjab-Nilatharai, Viradhar, Amil, Zarbuti[seeds] Gwalior-Amarbel Hindi-Akasbel, Aftimoon, kasus Dukani-Akaspawan, Amalwel Gujrati-Akaswel Maharashtra-Nirmuli Telugu-Sitama purgonalu Persian-Tukhm-i-kasusa

[the Indian metria medica,419,vol-I,AK NADKARNI]

Old folk names include devil's guts, devil's hair, devil's ringlet, goldthread, hailweed, hairweed, hellbine, love vine, pull-down, strangleweed, and witch's hair. Other names include, beggarweed, strangle <u>tare</u>, scaldweed, dodder of <u>thyme</u>, greater dodder, and lesser dodder.

Classification

Kingdom Plantae – Plants Subkingdom Tracheobionta – Vascular plants Superdivision spermatophyte – Seed plants Division Magnoliophyta – Flowering plants Class Magnoliopside – Dicotyledons Subclass Asteridae Order Solanales Family Cuscutaceae – Dodder family Genus cuscuta L. - dodder

DESCRIPTION:

Cuscuta (Dodder) is a genus of about 100-170 species of yellow, orange or red (rarely green) <u>parasitic plants</u>. Cuscuta reflexa is a memberr of the <u>Cuscutaceae</u> family. Cuscuta is a parasitic plant. It has no chlorophyll and cannot make its own food by photosynthesis. Instead, it grows on other plants, using their nutrients for its growth and weakening the host plant.

Cuscuta is a leafless plant with branching stems ranging in thickness from threadlike filaments to heavy cords. The seeds germinate like other seeds. The stems begin to grow and attach themselves to nearby host plants. Once they are firmly attached to a host, the cuscuta root withers away. The mature plant lives its entire life without attachment to the ground. Dodder <u>flowers</u> range in color from white to pink to yellow to cream. Some flower in the early summer, others later, depending on the species. The <u>seeds</u> are minute and produced in large quantities. They have a hard coating, and can survive in the soil for 5-10 years or more.

Dodder seeds sprout at or near the surface of the soil. While dodder <u>germination</u> can occur without a host, it has to reach a green plant quickly; dodder grows toward the smell of nearby plants. If a plant is not reached within 5 to 10 days of germination, the dodder seedling will die. Before a host plant is reached, the dodder, as other plants, relies on food reserves in the embryo; the <u>cotyledons</u>, though present, are vestigial.

TEMPERAMENT: - Hot 3° and dry 3° (Page-46, Tauzeeh-ul-advia)

- Hot 3° and dry 3°

(Page-94, Part-I, Al-Jamial-Mufaradat al-advia wal aghzia)

- Hot3° and dry2°(Standardization of Single drugs, Vol-I)
- Hot3° and dry1° Shaikh (Khazain-ul-advia, 242 page)
- Hot3° and $dry2^{\circ}$ (Page 30, Tohfat-ul-momineen).
- Hot3° and dry2°(31 Page, Mufaradat-e-Nasiri ma-takmila)

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- Hot3° and $dry2^{\circ}$ (Makhazin-ut-taleem, 66 page)
- Hot3° and wet2°(131 page, Majmu-ul-Bahrain)
- Hot3° and dry3° Jalinos) (107, Tarjuma Makhzanul)
- Hot3° and dry1° Hunain and others) (advia Bazaban-e-urdu)
- Hot3° and dry2° others
- Hot 3° and dry 2° (Page 85, Bustan-ul-mufaradet).
- Hot 3° and dry 3° (Page 20, Miqalate Ahsani)
- Hot3° and dry3°(Page 39, Vol-II, Tarjuma Qanoon)
- Hot 2° and dry 2° (Page 28, Tohfa-Hakeemi Momin)

PARTS USED:

Stem and seeds

CONSTITUENTS:

Quercetin, resins and an alkaloidal principle called cuscutine slightly bitter and soluble in ether and chloroform.

[the Indian metria medica,vol-I,AK Nadkarni]

Organic: alkaloid ,protein flavonoids, resin, tannin glycosides and carbohydrates.

Inorganic: aluminium, iron, calcium, sodium and potassium

[standerdisation of single drugs vol.I CCRIUM]

Flavonoids, dulcitol, bergenin, coumarins [Trease and Evans, Pharmacognosy]

Plant contain cuscutalin and cuscutin. Seeds contain pigments amarbelin and cuscutin and a wax and yield a semi-drying oil.

[Glossary of Indian medicinal plant,85,IC CHOPRA]

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- Cuscuta reflexa when on hostplant Santalum album, yields D-mannitol and when on other host plant yields dulcitol and when on Glycosmis triphylla, yields leutolinand when on other hosts it yields kaempferol.

[glossary of indian medicinal plants ,21,RN chopra]

- DULCITOL, Luteolin, querceteri and aglycoside of luteolin isolated from stem

[Compedium of Indian Medicinal Plant Vol-I, Page 137]

- Antiviral substance containing protein was isolated.

[Compedium of Indian Medicinal Plant Vol-III, Page 22]

General Use

In Western herbalism, cuscuta was traditionally used to treat liver, <u>spleen</u>, and gallbladder disorders such as <u>jaundice</u>; and to support liver function. It is still used, although rarely, in that way by modern herbalists. It is also a mild laxative. Other traditional Western claims for cuscuta are that it is a mild diuretic, and that it can be used to treat <u>sciatica</u> and <u>scurvy</u>. Externally, it can be gathered fresh and applied to the skin to treat scrofuladerma. Extracts of the herb have a very bitter taste.Contemporary Chinese herbalists use cuscuta in formulas to treat a range of conditions, including:

- Impotence
- Premature ejaculation
- Sperm leakage
- frequent urination
- Ringing in the ears
- Lower back <u>pain</u>
- Sore knees
- White discharge from the vagina (<u>leucorrhea</u>)
- Dry eyes
- Blurred vision
- Tired eyes

Cuscuta is one of nine herbs included in the manufacture of Equiguard, a Chinese herbal medicine recommended for kidney and prostate disorders. Research performed at New York Medical College indicates that the combination of ingredients in Equiguard may well be effective in the treatment of <u>prostate cancer</u>. The preparation inhibited the growth of <u>cancer</u> cells, increased the rate of self-destruction (apoptosis) of cancer cells, and prevented the surviving cells from forming colonies.

Cuscuta is also used in the Indian system of <u>Ayurvedic</u> healing to treat jaundice, muscle pain, coughs, and problems with urination.

Three species, Cuscuta austrahs R. Br., Cuscuta chinensis Lamle, and Cuscuta japonica Choisy, with simillar uses are known in Chinese medicine: The tonic prepared from the seeds is used to cure impotency, in continence of urine, blennorrhea and lcucorrhea.

The extract prepared from seeds, flowers and fruits of the plants, by boiling in water may be taken as vulnerary for mechanical injuries or a decoction as a remedy for atrophy in children eye disease and gonorrhea.

Little scientific research has been done in the West on cuscuta. A <u>purgative</u> compound has been isolated from the herb, however, that supports its traditional use as a liver and gallbladder tonic. Other research done at Asian universities indicates that cuscuta seeds contain a complex carbohydrate that stimulates the immune system and has some antioxidant properties as well.

Taste: slightly bitter

Method of processing:No processing is required as the drug is free from any toxic effect.

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Substitute: turbud in equal weight or hasha 1/3 of the weight of cuscuta. (Standardization of single drug Vol-I ccrium) Lajward, Hajre-armani (mufarablate-Nasiri Page 37) (Makhzan-ut-taleem, 66)

Correctives: saffron, almond oil and gum acacia, Niloufer flowers

Dose: 4-6 grams	[standerdisation of single drugs vol.I ccrium]
6gms – 1 tola	(85 page, Bustan-ul-mufarradat)
1gms – 1 tola	(37 page, mufarred at-e-Nasiri)
3.5gms–7gms	(page 94, Part I, Al jami al-mufarredat al-advia wal aghzia)
18gms –	(page 46 tauzeeh ul advia)
3.5 – 7 gms –	(page 20 miqalate-Ahsani)
7-14 gms –	(242, khazain-ul-advia)
14gms – 20 gms, Decocton	(242, Khezain-ul-advia)
13.5 gms – 7 gms – 10.5gms	(Majmoo-ul-Bahrain, 23 page) (277, Kitab-ul-Kulliyat, Ibne-rushd)

PREPARATION:

Cold infusion, decoction, powder and poultice

[the idian metria medica]

The entire thread-like stems of cuscuta are used. They are boiled in water along with such herbs as <u>ginger</u> and <u>allspice</u> to make a <u>decoction</u>. In Chinese herbalism, only the seeds are used. They are almost always used in combination with other herbs.

Method to prepare decoction:

First boil the water and keep out of flame, then add the medicine in it and keep close for steaming .donot boil because its properties become weak on boiling [ghafaqui] [aljamial mufaradat aladvia wal agzia part 1,96]

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Side Effects: It is not suitable to individual with hot temperament (Magmu-ul-Bahrain, Page 131)

No side effects have been reported when cuscuta is used in doses prescribed by herbalists.

It produces anxiety and discomfort because of its temperament (Mufarradat-e-Nasiri, Page 37)

Interactions:

Cuscuta has been used for centuries with other Chinese herbs without any reported interactions. Studies of interactions between cuscuta and Western pharmaceuticals have not yet been performed.

Medicinal Uses:

Plant is regarded as alterative, purgative and antihelminthic. Seeds are carminative and anodyne. Stem is purgative.Cold infusion of the seeds is given as a depurative and applied locally. Seeds are used along with sarsaparilla to purify blood. Stems in decoction are useful in constipation, flatulence, liver complaints and bilious affections, useful in piles, externally used against itch and other skin diseases. The fruits are used in fever and cough.

[the Indian metria medica]

<u>Alterative</u>; <u>Anthelmintic</u>; <u>Carminative</u>; <u>Purgative</u>. The seeds are alterative, anthelmintic and carminative. They are used in the treatment of bilious disorders. The stems are used in the treatment of bilious disorders. The whole plant is purgative. It is used internally in treating protracted fevers and externally in the treatment of body pains and itchy skin. The plant is employed in Ayurvedic medicine to treat difficulty in urinating, jaundice, muscle pain and coughs. The juice of the plant, mixed with the juice of Saccharum officinarum, is used in the treatment of jaundice. The analysis of the plant differs according to the host it is growing on. The report does not say if this makes a difference to its medicinal properties.[http://en.wikipedia.org/wiki/cuscuta]

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Used to cure melancholia ,insanity, intestinal worms and ailments arising out of excessive melanin[sauda]. [standerdisation of single drugs vol I ccrium]

- It is used in the treatment of cancer.

(Page 30. Tohfat ul-mumineen. Page 37, Mufarradat-e-Nasiri Matakmila Page 66, Makhazin-ut-taleem Vol-I, Ramoz-e-Azam Page 131, Majmu-ul-Bahrien. Page 107, Tarjuma, Makzan-ul advia Bazaban Urdu) Page 175, Kifa-e-Mansoori)

- Seeds are carminature, antihelminthic and alterative.
 - Plant as a whole is purgative, used externally against itch, internally in protracted feners.
- Infusion of plant, used as a wash for sores.
- Stem useful in bilious disorders.

(Page 85, Glossary of Indian Medicinal Plant, I.C. Cho

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