



ISSN: 0975-766X

CODEN: IJPTFI

Review Article

Available Online through
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**HEALTH BENEFITS OF INDIAN AROMATIC PLANT AJWAIN
(TRACHYCPERMUM AMMI)**

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Received on 26-08-2011

Accepted on 30-08-2011

Abstract

In recent years there is a spurt in the interest regarding survival of Ayurvedic forms of medication. In the global perspective, there is a shift towards the use of medicine of herbal origin, as the dangers and the shortcoming of modern medicine have started getting more apparent, majority of Ayurvedic formulation are prepared from herbs. Although herbal remedies are often perceived as being natural and therefore safe, they are not free from adverse effects. Adverse effects of herbal medicine may be due to factors such as adulteration, substitution, contamination, misidentification, lack of standardization, incorrect preparation and dosage and inappropriate labeling and advertisement. Ajwain is a herb also known as Bishops Weed. Ajwain probably originated in Egypt and the eastern Mediterranean area. It is very widely cultivated in black soil particularly along the riverbank in Egypt and many other countries like India, Iran and Afghanistan. Main constituents include an essential oil of *Trachycpermum ammi* called thymol which constitutes 35-60% of the essential oil (2.5 to 5% in the dried fruits). There is also α -pinene, p-cymene, limonene and γ -terpinene found in the seed. This beneficial herb is used in culinary process as spice as well as a major ingredient of different kind of medicines. Ajwain seeds are small in size but taste hot, penchant and bitter. It acts as good appetizer, laxative and stomachic. It is used as effective remedy in managing ailments like vomiting, mouth diseases, pile, abdominal tumor, abdominal pain etc.

Keyword: Trachycpermum ammi , Standardization, Appetizer, Laxative, Stomachic.

Introduction

In recent years there is a spurt in the interest regarding survival of Ayurvedic forms of medication. In the global perspective, there is a shift towards the use of medicine of herbal origin, as the dangers and the shortcoming of modern medicine have started getting more apparent, majority of Ayurvedic formulation are prepared from herbs. Although herbal remedies are often perceived as being natural and therefore safe, they are not free from adverse effects. Adverse effects of herbal medicine may be due to factors such as adulteration, substitution, contamination, unidentification, lack of standardization, incorrect preparation and dosage, and inappropriate labeling and advertisement. Adulteration with synthetic drugs and toxic heavy metal are major problems with herbal medicine. Most of the spice has the therapeutic activity. Spice like as fenugreek, capsicum, coriander, cumin ajwain etc. Ajwain is a very old and well known Ayurvedic spice it is the one of the useful spice in our kitchen we can also use it for the treatment of our disease easily. *Trachycpermum ammi* are originated in the Middle East, possibly in Egypt. It is now primarily grown and used in the Indian Subcontinent, but also in Iran, Egypt and Afghanistan. It is sometimes used as spice mixture favored in Eritrea and Ethiopia used for the such as ulcers, ringworm, itching, stomach worm, bile, menstrual and post-natal disorders, leucorrhoea, female infertility, pimples, kidney stones and many more, and also useful as an aphrodisiac, digestive aid. According to Hakeem Hashmi, the oriental unani researcher, the ajwain seeds combine the powerful and stimulant qualities of capsicum, bitter property of Chirata and anti spasmotic qualities of Asafotida. Ajwain has been used as a carminative medicine from the ancient times.

What is Ajwain

An erect, glabrous or minutely pubescent, branched annual, up to 90 cm. , tall, cultivated almost throughout India. Stems striate; leaves rather distant, 2-3 innately divided, segments linear, ultimate segments 1.0-2.5 cm. long; flowers in terminal or seemingly-lateral pedunculate, compounds umbels, white, small; fruits ovate, muricate, aromatic, 2-3 mm. long, grayish brown; mericarp compressed, with distinct ridges and tubercular surface, 1-seeded. Flowers and fruits during January-April.

Ajwain (*Trachycpermum ammi*)

Scientific classification

Kingdom : Plantae

Subkingdom : Tracheobionta

Division : Magnoliophyta

Class : Magnoliopsida

Subclass : Rosidae

Order : Apiales

Family : Apiaceae

Genus : *Trachyspermum*

Binomial name : *Trachycpermum ammi*

Morphology

Odor - characteristic spicy

Taste - bitter.

Color - The seeds are small, gray-green.

Surface - Ajwain is a small, erect, annual shrub with soft fine hairs.

Oil morphology

Color - Brownish liquid

Odor - Characteristic odor

Taste - Sharp hot taste

Parts use

The part used of the plant is the seeds or fruit.

Distribution

Ajwain originated in the Middle East, possibly in Egypt. It is now primarily grown and used in the Indian Subcontinent, but also in Iran, Egypt and Afghanistan. It is sometimes used as spice mixture favored in Eritrea and Ethiopia. In India, the major Ajwain producing states are Rajasthan and Gujarat, where Rajasthan produces about 90% of India's total production.

Chemical constituents

Main constituents include an essential oil called thymol which constitutes 35-60% of The essential oil (2.5 to 5% in the dried fruits). There is also α -pinene, p-cymene, limonene and γ -terpinene found in the seed.

Ajwain seeds consist of moisture, protein, fat, minerals, fiber, carbohydrates, calcium, phosphorus, iron, carotene, thiamin, riboflavin and niacin.

Culinary Use

In the kitchen, ajwain seeds are almost exclusively used in Indian cuisine. They are mainly found in pulse dishes such as dhal, as well as vegetable dishes and pickles. The sharp flavor of ajwain has the ability to cut through rich flavors and densely spiced foods.

Here are the health benefits of Ajwain

- 1) Ajwain is very useful in alleviating spasmodic pains of the stomach and intestines, in adults as well as children. Any colicky pain due to flatulence (gas), indigestion and infections in the intestines can easily be relieved by taking one teaspoonful of Ajwain along with 2-3 pinches of common salt in warm water.
- 2) In an acute attack of common cold or migraine headache, put Ajwain powder in a thin cloth and smell this frequently. It gives tremendous symptomatic relief according to some Ayurvedic experts.
- 3) Ajwain is a very good digestive. It can be taken with buttermilk to alleviate digestion related problems. It is a good anti-acidic agent.
- 4) If you have chronic bronchitis and asthma, take the mixture of Ajwain and zinger, heat it to make

- 5) A paste and take 2 teaspoonfuls twice a day. However, diabetics should not take this preparation because of the sugar content. It helps to bring out the mucus easily and alleviates chronic bronchitis and asthma to great extent. It also helps in chronic cold.
- 6) If people who consume excessive alcohol develop discomfort in the stomach, taking Ajwain twice a day, will be very useful. It will also reduce the craving and desire for alcohol.
- 7) Taking one teaspoon of Ajwain with hot water stimulates the heart and relieves heartache.
- 8) Ajwain oil can help in relieving ear ache with just one or two drops in the ear.
- 9) Ajwain oil can also be used to massage legs and knees to get relief from pain from arthritis. It is beneficial in treatment of rheumatic and neuralgic pain.
- 10) The smoke of burning Ajwain seeds is effective in treating toothache. Gargle with lukewarm water prepared by boiling of Ajwain and little salt two to three times a day, it cures tooth pain.
- 11) Ajwain is very effective in curing cough. Drinking hot water after chewing little Ajwain cures cough. Chewing betel leaf with Ajwain at night before sleeping controls and cures dry coughing.
- 12) A tablespoon of crushed Ajwain tied up in a small cloth bundle can be used for inhalation. It also relieves nasal congestion while sleeping when placed near the pillow.
- 13) A person suffering from influenza should drink the boiled water with 3gms of Ajwain and 3gms of Cinnamon bark for 3 days, thrice a day. This helps curing influenza to a great extent.

Medicinal uses

An essential oil is extracted by steam distillation of the crushed seeds of ajwain. This oil is valued considerably in medicine on account of the presence of thymol.

Ajwain are used in many disease such as germicide and antiseptic, cough syrups, throat lozenges, asthma, indigestion and gas relief , such as ulcers, ringworm, itching, stomach worm, bile, menstrual and post-natal disorders, leucorrhoea, female infertility, pimples, kidney stones, as an aphrodisiac, powerful cleanser, stimulating

the appetite, in toothache, earache, Carminative, Laxative, in the treatment of Abdominal tumors, Enlargement of spleen, Piles, Vomiting, Abdominal pains, Anti-platelet activity, Antioxidant activity, Antiviral activity, Insecticidal activity and Anti-tussive activity. The oil also used as eardrops, use the oil as a massage for neuralgia. According to Unani system of Medicine, It is useful in treatment of weakness of limbs, paralysis, chest pains, diseases of liver, spleen, hiccup, vomiting, dyspepsia, kidney troubles, inflammations etc

Ajwain Herbal Remedies

some of the common herbal remedies of ajwain seeds are as follows -

- 1) **During Pregnancy**- In some regions, ajwain seeds are taken during pregnancy. The seeds are taken with gaud as it is believed that it purifies the blood and reduces lumbago.
- 2) **Venomous insect bite** – In traditional Vedic medicine, paste of ajwain seeds is mentioned as a remedy for venomous insect bite such as scorpion bite, as it has pain killing properties.
- 3) **Toothache headache**– Ajwain fumes are also inhaled to cure toothache, which is caused by decaying tooth. In an acute attack of common cold or migraine headache, put ajwain powder in a thin cloth and smell this frequently. It gives tremendous symptomatic relief according to some ayurvedic experts.
- 4) **Hiccups** – To instantly stop hiccups, ajwain seeds are taken with one or two sips water.
- 5) **Kidney stone** – Ajwain seeds are taken regularly with vinegar or honey for a week. This remedy removes kidney stone with the urinal flow.
- 6) **Stomach tonic** – Ajwain seeds soaked in water for a night and its water is taken next morning. This helps in stomach diseases as it cures digestion and acute dyspepsia.
- 7) **Acidity** – Dry roast one teaspoon of ajwain seeds and cumin seeds. Add to it one cup of water and bring it to boil and strain it. Add some sugar and take one teaspoon as a remedy for indigestion and acidity.

Toxicity

Spices are important vectors for various microorganism implication possible health problems for consumers as well as quality and shelf-life problems for foods. *Trachycpermum ammi* contain only *B. erueus* 56-B2 and *Cl. Perfringens* 72-C1 (Banerjee and Sarkar, 2004). Aflatoxins, the mycotoxins produced mainly by *Aspergillus flavus*

and *Aspergillus parasiticus*, represent a worldwide threat to public health due to their frequent occurrence in food and feed. But *Trachycpermum ammi* did not contain these aflatoxins. The undiluted oil is a mucous membrane and dermal irritant. Due to the high thymol content it should be avoided in pregnancy. The acute oral LD50 of thymol is reported as 0.98 g/kg in the rat and 0.88 g/kg in the guinea pig.

Conclusion

The part used of the plant is the seeds or fruit. It looks like cumin or caraway seeds. It has a bitter taste like thyme only stronger. The seeds are small, gray-green in color and quite peppery when raw, but milder when cooked.

Ajwain is a small, erect, annual shrub with soft fine hairs. It has many branches of leafy stems, small feather like leaves, 4 to 12 rays of flower heads, each bearing 6 to 16 flowers. The fruits are minute, egg shaped and grayish.

According to ayurveda, ajwain is a powerful cleanser. It is helpful for stimulating the appetite and enhancing digestion. It is recommended to help alleviate gas and discomfort in the stomach. It is also helpful for the functioning of the respiratory system and the kidneys. Ajwain is also useful in toothache, earache and rheumatism, as we can use the oil as eardrops and use the oil as a massage for neuralgia. In an acute attack of common cold or migraine headache, put ajwain powder in a thin cloth and smell this frequently. It gives tremendous symptomatic relief according to some ayurvedic experts. Ajwain also the rich source of moisture, protein, fat, minerals, fiber, carbohydrates, calcium, phosphorus, iron, carotene, thiamin, riboflavin and niacin also. It is the most known spice in our kitchen so we can easily take it in our daily diet and cure or prevent many more diseases of life.

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