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# A Review of the Siddha Drug Omam

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## Abstract

Siddha medicine, an ancient system of healing originating from Tamil Nadu, India, relies on herbal formulations and natural remedies to maintain health and treat various ailments. *Trachyspermum ammi* seeds have been widely used in many formulations to treat various ailments in the Siddha system of medicine.This review explores the components, traditional uses, and potential benefits of *omam (Trychyspermum ammi),* while also considering contemporary perspectives on its efficacy.

**Keywords:** *omam (Trachyspermum ammi)* Siddha medicine, Herbal medicine.

## Introduction

Omam seed is widely used in Siddha medicine to treat various health conditions, including digestive disorders and inflammatory diseases. The Siddha system of medicine, which originated in ancient Tamil Nadu, emphasizes using natural substances to restore balance and promote overall well-being. In the Siddha system, many formulations contain Herbs metals, and Minerals as components. One such Herbal omam is indicated for *swasakaasam*(bronchial asthma), *peenism (respiratory system), and* gastrointestinal disorders. However, further research is needed to understand its mechanisms of action and clinical applications fully.

## Materials and Methods

### Selection of the test drugs

The test drug omam is one of the Herbal formulations for respiratory disorders and gastrointestinal disorders which is indicated in the Siddha literature

"பதரர்த்த குணவிளக்கம் மூலவர்க்கம்", பக்கம் எண்: 186.

### Collection of Raw drug

The raw drug was purchased in a Country shop in Chennai and authenticated by a botanist and from the Department of Gunapadam, Govt. Siddha Medical College, Chennai (certified No.)

| S. No | Ingredients | Botanical Name | Quantity |
|---|---|---|---|
| 1. | omam | *Trychyspermum ammi* | 1kg |

Tab.No:1, Ingredient of *omam Vithai*

### Purification of *omam vithai*

After collection, the seeds will be processed in warm water and are allowed to dry completely under the sunshade[1].

### Siddha Aspect Of The Literature

#### *Omam*

**Synonyms:** asamthaagam, asamadhaomam

**Taste:**spicy

**Potency:**Hot

**Parts used:** Seed, Oil

**Action:** Anti-tussive, Antispasmodic, Bronchodilators, Gastro defensive properties

**General Property:** The following conditions are treated with omam *swasakaasam* (bronchial asthma), *vaitruporumal* (gastrointestinal problems), *seriyahkalichal* (dysentery), *irumal* (cough), and some kabha diseases.

### Traditional usage

- The seed has been made as water decoction and treated for treating respiratory problems, aiding weight loss, all digestion-related problems, and also as an insecticide.
- Seed powder has been taken internally for treating stomach ache, cough, dysentery
- It has been boiled with water and taken internally for nourishment of the body.
- Decoction of seeds with or without the addition of aromatics is given in weight management.
- The seed oil is bitter and it's useful in abdominal disorders.

### Botanical aspect

Botanical Name: Trychyspermum ammi
Syn: Carum copticumwild is classified as,
Kingdom: Plant kingdom
Division: Magnoliopsida, Flowering plants
Class: Dicotyledons
Order: Apiales
Family: Apiaceae
Genus: Trachyspermum
Species: Ammi

### Botanical Description:

The scientific name for omam is Trachyspermumammi. They thrive in arid or semi-arid areas with high salinity levels in the soil. A type of herbaceous perennial plant that grows yearly is the omam. This plant has an abundance of branches and a highly striped stem. However, the plants' two or three leaves are apart from one another. These leaves split into linear pieces pinnately.

The stem is covered with an umbel, having an inflorescence nature. The umbel has 16 umbellets. The 16 umbellets further consist of 16 flowers. The flowers are white and very small. These are known to be actinomorphic. The flowers consist bi lobe petals which are present alternative to the stamens. Both the petals and the

stamens are five in number. The ovary of the plant is present inferiorly with a knob-like stigma. The fruits of the plants are of an oval and cordate shape and have aromatic cremocarp with a steady stylopodium. These are of greyish brown color.

The fruit's cross-section with two hexagonal structures is attached to the fruit stalk. The exocarp comprises tangentially elongated plates; the mesocarp comprises mediumthick-walled, rectangular to polygonal tangentially elongated cells, and some tubules are made of barrel-shaped, tangentially elongated cells. The endosperms consist of parenchyma cells that fill the embryo.

## Chemical Constituents

| S. No | Parts of the plant | Chemical Constituents |
|---|---|---|
| 1. | Seeds/Seeds oil | 2.5-5 % essential oil and 26% fatty oils,g $\gamma$-terpinene (14.2%), p-cymene (23.1%), and thymol (62.0%),terpinene-4-ol, palmitic acid, xylene |
| 2. | leaves | Cadinene (43%), longifolene (11%), thymol (5%), and camphor (3%) |
| 3. | Leaves, flower | Extract-Hyoscyamus |

## The pharmacological activity of *omam:*

Analysis of ajwain seeds that they contain the following properties: 11.9% fiber, 38.6 carbohydrates, tannins, glycosides, moistures (8.9%), proteins (15.4%), fat(18.1%), minerals such as calcium, phosphorous, etc., iron, and niacin. Thymol constitutes almost 2%-4%(35%-60%) of the brown essential oil obtained from the ajwain fruit. Carvacol has a non-thymol portion (thylene) the alcoholic extract contains hygroscopic saponins. A steroids-like yellow substance extracted from the fruit together with glycosides, yieldings25% oleoresin and 12% volatile oil(thymol, alphaterpinene, p-cymene,alpha-pinene), the main oil of ammi are limonene(38%), diylapiole(9%) and carvone(46%).

## Antispasmodic, bronchodilator, and antihypertensive properties:

It has been demonstrated that the intravenous injection of *Trachyspermum ammi* has antihypertensive effects on the body. Calcium channel blockers have antispasmodic effects in vitro T extended gastrointestinal and pressure situations such as diarrhea and colic. It has also been demonstrated to have bronchodilator or antispasmodic effects on the body.

**Diuretic effect along with Anti-lithiasis effect:** Rats' oxalate urolithiasis was prevented by studying T. ammi's anti-lithogenic and diuretic properties in vivo. Additionally, it was discovered that T. ammi was unable to enhance urine output more than once every 24 hours due to its diuretic capabilities. Research has not verified the effectiveness of T. Ammi's principles for treating kidney stones.

**Anti-inflammatory properties:** Anti-inflammatory properties, Total alcoholic extract(TAE), and total aqueous extract(TAQ) of ajwain seeds have anti-inflammatory properties.

## Cough suppressant properties:

Carvacrol, codeine, and the number of coughs induced in saline solution with aerosols containing two different aqueous extracts and infused extract. The results showed a reduction in cough frequency. Both can be done in a situation where water is abundant and softened extracts($P< 0.001$ for extracts and codeine ).

### Gastro defensive movement:

An organic supplement called Trachyspermum a mmi has been demonstrated to prevent illness in s everal ways.

All of the samples that were guaranteed to have fe wer bacteria and viruses had microorganisms that had been pretreated with ethanol extract.

When compared to the control animal collection, the results demonstrated that the concentrate had good stability by lowering the number of illnesses .
Aflatoxin detoxification.

Concentrated ajwain seed had the least amount of aflatoxin G1 (AFG1).

Foaming considerably reduces the aflatoxin detox ifying action of individual seeds.

Additionally, a significant decrease in the penetrat ion of several aflatoxins from seedlings exposed t o individual dialysis was observed of a detoxifyin g solution containing *T. ammi.*

A temporal study of AFG1 detoxification showed that more than 91% of detoxification occurs withi n 24hours of incubation and 78% of detoxification occurs within 6 hours of incubation.

### Anthelmintic action:

Trachyspermum ammi's anthelmintic activity has been demonstrated against recognizable helminth, including twisted harmonious worms in sheep an d roundworms in humans.

The stomach's peristatic growth gives *T. ammi* its anthelmintic properties.

As a result, it aids in the removal of intestinal para sites, which may also enhance the stomach's anthe lmintic motility.

### Omam in Siddha Formulations

| S. No | Name of the formulation | Dosage | Used as | Indications |
|---|---|---|---|---|
| 1. | Omam thylam | 1-3 drops | Int/Ext | Ooli, vaitruporumal, vaitruvazhli, agatuvaivuagatri, seriyakalichal. |
| 2. | Korakkuvaellaiku ennai | 16ml | Ext | Korruku, vellai noi pogum |
| 3. | Omam ottradam | - | Ext | Sawasakaasam, iraippu, irumal, nenjilkozhli, iyaamnoi. |
| 4. | Karunjeeragam pottanam | - | Ext | peenism |
| 5. | Omaathi urundai | Thuvaraialavu (3-5 tablets) | Int | All types of maantham. |
| 6. | Mukadugu kudineer | 4ml | Int | Maanthamnoi |
| 7. | Omamm ulukku | - | Ext | For all type of Thodamneekam |

*Int-Internal, Ext*-External

## Conclusion

This literature review discusses the ancient significance and recent research on *omam*, an Herbal compound used in Siddha treatment. Existing research suggests that it has anti-inflammatory, antioxidant, antimicrobial, and Gastroprotective which support its usage in a variety of health disorders. Although the scientific evidence that is now available is encouraging, there are still unanswered questions about the formulation's long-term effects, ideal dose, and

mechanisms of action. To completely investigate the medicinal potential of omam, future research should concentrate on standardization, quality control, and clinical trials. Thus, it will pave the way for the identification of less invasive and cost-effective management strategies for many diseases.

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