



## A PROSPECTIVE OBSERVATIONAL STUDY OF TRACHYSPERMUM AMMI IN TREATMENT OF DYSPEPSIA

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### ABSTRACT:

The use of plants as medicine is as old as human civilization. Natural products are a source of bioactive compounds and have the potential for the development of some new therapeutic substances.

Trachyspermum ammi commonly known as "Ajwain" belonging to the Apiaceae family is a well-known plant in ancient literature and modern medicine, which has a wide range of therapeutic use. Although the drug is proven; The effectiveness of the drug has not been detected. A clinical study on 30 patients dyspepsia confirmed my hypothesis and statistical analysis of IT verified. The study also helped me achieve my goal in understanding the use of the drug in the treatment of other symptoms observed in patients, thereby helping me to quantify.

Homeopathic cases of cases were effective not only for the treatment, but also to prevent other episodes of dyspepsia. The auxiliary line of treatment in the form of advice to patients was also auxiliary to repair their eating habits and regime.

**KEYWORDS:** Trachyspermum ammi, Ajwain, Homoeopathic Pharmacy, Homeopathy and Homeopathic Medicine.

### INTRODUCTION:

Trachyspermum Ammi is a medicinal plant belonging to the Apiaceae family, which includes 270 genera and species. This is commonly known as Ajwain in Hindi, an Episcopal weed in English, Yamini in Sanskrit. The name of Ajwain derived from the Sanskrit words Yavanaka or Ajomoda. Ajwain is a very old and well-known Ayurvedic spice<sup>1,2</sup>. It is an annual, aromatic, erect herb bearing white flowers and small brownish fruit. Ajwain seeds are small, gray with bitter taste and quite pepper when they are raw but when cooking.



Picture no-1seeds



Picture no-2 plants

The most commonly used part of this plant are seeds or fruits Ajwain, which has been known since antiquity as Ayurvedic spices. Traditionally, it is used as a medicinal plant for the treatment of digestion and dyspepsia and many other stomach disorders. Ajwain is also rich in moisture, proteins, carbohydrates, fat, minerals, fiber, calcium, phosphorus, iron, carotene, thiamine, riboflavin and niacin. The chemical composition of essential oil and the presence of diversity of various components in it is responsible for a wide range of biological properties. Essential oil Ajwain contained thymol (87.75%) and Karvacrol (11.17%) as the main ingredients and the main unappreciated components were quantified by P-cymen (23. Frenen (23.17%).

In traditional Persian medicine (TPM) Persian practitioners usually used ajwain seeds as the most useful part of the herb. Oral seed application was reported as useful for paralysis, tremor and palsy, as well as other nervous disorders. It was considered to be a carminative and diuretic nature and an effective remedy for diseases such as paralysis, weakness of the limbs.

A new definition of dyspepsia has been designed: pain or discomfort focused in the upper abdomen. Here, the discomfort concerns the subjective negative feeling, but the one that the patient does not interpret as pain. The duration is not given.

It has been found that psychosocial factors such as neuroticism, mood disorders and quality of life contribute to morbidity associated with dyspepsia. The economic cost of dyspepsia is difficult to compare between countries due to differences in the benefits of disease and rules and subsidies for drug prescription. In many individuals in the Western world are concerned about heartburn, regurgitation acid, abdominal pain or disruption of intestinal habits; Up to one of the two subjects in studies based on cross-sectional populations, such symptoms of dyspepsia report. The reported prevalence range in populations is 15-40%.

Chronic dyspepsia was defined as dyspeptic symptoms present for at least 25% for at least one month. Functional (non-ulcer) dyspepsia was defined as chronic dyspepsia in the absence of a definitive structural disease. As sub-groups were considered only to subgroups, similar to ulcer, dyspepsia similar to ulcers and unspecified dyspepsia.

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## REVIEW OF LITERATURE:

### Dyspepsia -

1] Definition-dyspepsia is one of the most common disorders of the upper gastrointestinal tract. It is also defined as the presence of postprandial fullness, early satiation, epigastric pain or burning in the absence of an organic disease to explain the symptoms of patients.

2] Pathophysiology- pathophysiology is a change in normal physiological effect. The function is a disruption that causes nausea, vomiting and retching.

A] nausea is a conscious recognition of the subconscious excitation of the area known as Medulla Oblongata closely associated with the vomiting center and can be initiated by an impulse from GIT, a lower brain in conjunction with movement disease or cortical impulse.

B] The phase of retching is characterized by a number of violent spasmodic abdomano-thoracic contractions with closed glottis. During this time, the inspirational movements of the thoracic wall and membranes are against the exhalation contractions of the abdominal musculature.

C] vomiting- hypersensitivity was associated with stomach destination, stomach acid and bile; Especially those who complain of postprandial epigastric pain.

E] Psychosocial factors- psychosocial factors include anxiety that is very common in patients.

In some studies, there is a low fat diet in some studies may cause symptoms. Mental stress is another associated with the deterioration of postprandial symptoms.

F] Other factors- finally, several other factors include environmental, dietary factors and lifestyle.

### Clinical presentation of symptoms of dyspepsia-

1] Gnays or burning in the stomach with pain.

2] Blting in the stomach

3] heartburn

2] Blting in the stomach

3] heartburn

4] Nausea

5] vomiting

6] Burping

### Causes of dyspepsia:

1. food - unhealthy food

2. Poor eating habits

3. Lack of exercise

4. Medicines, medicines like NSAID

5. illness

6. pregnancy

7. Obese

8. Emotional disorders

### Factors contributing to digestive digestion -

1. From the undigested food

2. Excessive forgiving in good food

3. From alcohol

4. From tobacco
5. From the tea
6. From the cold
7. From the poor air
8. From nervous devotion
9. From the bloodstream
10. From the healing
11. Constitutional

Pathophysiology: More mechanisms are likely to be involved. Specific combinations of physiological, genetic, environmental and psychological factors in an individual lead to a number of symptoms called dyspepsia.

Alarming features are: weight loss, anemia, vomiting, hemememesis, dysphasia, recurrent onset of progressive symptoms, palpable abdominal mass.

Investigation: as needed in this case.

Trachyspermum ammi

Qualitative phytochemistry: Raw medicinal powder shows the presence of glycosides, fixed oils, steroids, terpenes. Ethanol extract from seeds shows the presence of reduced sugar, tannins.



Plant picture no 3

### TRACHYSPERMUM AMMI :

Antibacterial activity: Essential oil Ajwain oil also showed antibacterial activity against enterococcus faecalis, Escherichia coli, Klebsiella pneumonia, pseudomonas aeruginosa, Salmonella Typehi, Salmonella Typehimurium, Shigella Flexneri and Staphylococcus and. Ajwain had antibacterial activity against eight Helicobacter pylori tribes.

Anthelmintic activity: Anthelmintic activity of Ajwain was considered by Ascaris lumbricoides in humans. The results were caused by the loss of energy reserves by affecting the energy metabolism of parasites by strengthening the activity of ATPASE. It has also been reported that Ajwain shows cholinergic activity with peristaltic movements of the intestine.

Anti -aggregation activity: ajwain seeds inhibited the aggregation of plates caused by acid arachidonic, collagen and epinephrine.

Antitussive and bronchodilating effects: The study has shown a relatively bronchodilating effect on asthma respiratory tract compared to theophylline in concentrations used.

Spermicidal activity: volatile oil had a strong spermicidal effect.

The oil can therefore be considered a natural contraceptive agent.

Antihypertensive and antispasmodic activity.

Digestive stimulating activity: Ajwain can increase stomach acid secretion, bile acid and digestive enzyme activity. It can also shorten the food transition time. As a modulation activity of the Ajwain enzyme, the efficiency of pancreatic lipase and amylase, which can support digestive stimulation activity.

Estrogenic activity: The total content of phytoestrogen in dry ajwain seed was determined as in this respect, the second highest in the list of plants tested for the total content of phytoestrogen.

Toxicity and teratogenicity: it was reported that Ajwain showed teratogenicity in rats. Therefore, it may be harmful to be intake during pregnancy.

Antifungal: essential oil Ajwain seeds also showed a wide range of functionitoxic behavior against A.NIGER, A.Flavus, A.OROZAE, A.Ohraceus, F.MoniFor, f. Gamearum, p.citrium, p.viridicatum, p.madriti and cheilomes lunata.

Antioxidant: Ajwain is rich in vitamins and minerals; It is also focused on health -promoting phytonutrients such as carotenoids (βcarotene and lutein) and flavonoids that provide strong antioxidant protection.

Antimicrobial effects: Thymol kills bacteria resistant to third -generation antibiotics and microbial pathogens resistant to multiple drugs, thus acting as a plant fourth generation herbal antibiotic formulation.

One of the main is its ability to reduce flatulence. It can also be cooked in tea, for the treatment of colic and diarrhea. The roots of Ajwain are diuretic nature. Its seeds contain about 50% thymol, known and antibacterial essential oil and together with a tymine that can be used to increase the immune system to avert colds and flu and other viral infections. Ajwain seeds with core of tamarind seeds act as an effective aphrodisiac.

Materia Medica

### **TRACHYSPERMUM as a medicine:**

Drug Sphere: The effect of the drug is usually focused on the head, git, neck and skin.

Guidance, to symptoms such as abdominal pain, flatulence, diarrhea, heartburn, headaches, pimples, sore throat, fever, joint pain, sneezing and symptoms of irritability:

Blosts with great discomfort in the abdomen, leading to a false angina disaster as pain; The feeling of suffering from a serious illness with fear of death. Headache> food.

Anextened gums with pimples on the face.

Coryza with sneezing worse at night, wilderness inside the nose.

Increased appetite with nausea, heartburn, erection.

Pain in the left hypochondria and the epigastric region with a desire for stools, better pressure. After the stool better. Hard stool with great stress.

This medicine was studied by Dr.Ajith.kumar.d.s and an effective protocol on how to perform a medicine. It was an attempt to study drugs on sick persons who defeat their own purpose, because the positive effect of the drug can be hung by an existing disease in the body.

Homeopathic approach

The disease is not a local matter, but includes the whole man-is psychological and his physical makeup. The man is not ill because he has this or that local illness. Local illness is there because the man is sick. He is ill because his cells and tissues are not healthy and because there is a state of clutter and lack of effectiveness in a fundamental function.

The mind and body cooperate as a unit and disorders are expressed in both spheres.

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### **CONCLUSION :**

Although known from ancient time, due to rare availability (30C & 200C potency) of this medicine, Trachyspermum Ammi is not often used in homoeopathy. The clinical study shows that the medicine is efficacious in affections of other systems besides GIT as described in Ancient Ayurvedic Literature.

The study; “A Prospective Observational Study of Trachyspermum Ammi in Treatment of Dyspepsia” was conducted at college OPD and IPD and during camps. This clinical study validated the hypothesis of Trachyspermum Ammi being effective in treatment of functional dyspepsia. The statistical analysis was in favor of the hypothesis.

Also I was able to fulfill my objective of studying the other symptoms of Trachyspermum Ammi in the other systems and the miasmatic understanding of functional dyspepsia (hyperchlorhydria, hypochlorhydria and atonic).

The guidelines by Dr Hahnemann, in aphorism no 146 and 147 for judicious employment of artificial morbid agents to ascertain their pure action had encouraged me to take up this study.

Further study of the medicine in different potencies and over a larger sample size would provide a better understanding of Trachyspermum Ammi so as to improve its therapeutic application.

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