

**PHYTOCHEMICAL AND PHARMACOLOGICAL PERSPECTIVES ON *AJWAIN DESI*
(*Trachyspermum ammi* LINN.) WITH REFERENCE TO GASTROINTESTINAL
DISORDERS: A REVIEW**

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Trachyspermum ammi Linn. (*Ajwain Desi*) is a traditional aromatic herb widely used in the Unani system of medicine to treat gastrointestinal disorders. This review evaluates its therapeutic potential by integrating classical Unani knowledge with recent scientific research. A 47 relevant research articles were reviewed, published between 2000 and 2024 through Google Scholar, Science Direct, PubMed, Hinari, and Scopus using keywords including “*Ajwain Desi*,” “*Trachyspermum ammi* Linn.,” “*Amraz e Meda wa Ama*,” and “gastrointestinal disorders.”. The recent research findings revealed that the *Ajwain Desi* produces the effects on gastrointestinal disorders due to cumulative biological activities of antispasmodic, carminative, anti-inflammatory, antioxidant, anthelmintic, analgesic, and antimicrobial activities possessed by their chemical constituents, especially thymol, carvacrol, tannin, flavonoids, phenols, γ -terpinene, and p-cymene. These effects arise from mechanisms including calcium channel modulation, microbial growth inhibition, and suppression of oxidative and inflammatory pathways. Preclinical evidence demonstrates *Ajwain Desi*'s efficacy in relieving smooth muscle spasms, reducing gastric lesions, disrupts the bacterial plasma membranes, and improving digestion and intestinal motility. The strong concordance between traditional uses and modern pharmacological data supports *Trachyspermum ammi* as a promising complementary therapy for gastrointestinal disorders such as indigestion, flatulence, ulcers, colic, and parasitic infections. It is evident from this study that the overall effect of the *Ajwain Desi* is on gastrointestinal disorders, gastrointestinal protection, and alteration, which reverse the pathological process of the gastrointestinal organs. However, further clinical trials are necessary to confirm its safety and effectiveness in humans and to support its integration into evidence-based medicine.

Keywords: *Ajwain Desi*, *Amraz e Meda wa Ama*, Gastrointestinal disorders, Phytochemicals, *Trachyspermum ammi* Linn.