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A Brief Review on Trachyspermum Ammi. and it's Pharmacological Activity

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Abstract: Ajwain seeds revealed to possess antiseptic, stimulant, carminative, diuretic, anaesthetic, antimicrobial, antiviral, nematicidal, antiulcer, antihypertensive, antitussive, bronchodilatory, antiplatelet and hepatoprotective as well as antihyperlipidemic effects, many of those were remarked by early Persian physicians. With reference to these pharmacological activities, Ajwain seeds can be a good candidate for to be applied in clinical practice. However, in spite of various experimental and animal studies, lack of comprehensive clinical trials aimed on regarded effects is still remained to reconfirm the traditional knowledge. Thymol in ajwain seeds is packed with anti-inflammatory, anti-bacterial and anti-fungal properties that help in providing instant relief from cold, fever and flu. It helps in clearing nasal blockage by discharging the mucus. Ajwain Works as an Expectorant: Ajwain has Thymol which has expectorant properties. Thus, it acts as a decongestant and helps in mucus removal to clear children's nasal passage and help them breathe easily. (1) Trachyspermumammi (L.) Sprague or commonly Ajwain is a herbaceous herb belonging to the family Apiaceae and vastly grows in Egypt, Iran, Pakistan, Afghanistan, and India as well as European region. Known as Zenyan or Nankhah in medical and pharmaceutical manuscript of medieval Persia, seeds of Ajwain were highly administered by traditional healers and traditionally employed for different ailments. Due to its various chemical constituents, the herb seeds were also evaluated for its numerous pharmacological properties. Accordingly, current work was carried out to review the traditional and modern pharmacological properties of Ajwain regarding current and medieval reports. To this, respective databases were searched for the terms 'Trachyspermum ammi', 'Carum copticum', 'Ajwain' and 'Ajowan' without limitation up to early 2013. Information on the herb was gathered via electronic search using Pubmed, Scopus, Google scholar and SID (for articles in Persian language) as well as medical and pharmaceutical manuscripts of Persian medicine. (1).

Keywords: Ajwain, *Trachyspermumammi* (L.) Sprague, traditional medicine, herbal medicine, Apiaceae, nasal congestion

REFERENCES

- [1]. A carumcopticum L. A herbal medicine with various pharmacological effects Md. Hossein Boskabady, Saeed Alitaneh Biomed Research International 2014.
- [2]. Chemical composition of Trachyspermum ammi & its biological properties: KK chahal, K Dhaiwal, A Kumar, D Kataria & N singla, Journal of pharmacognosy & phytochemistry 2017;6(3) 131-140
- [3]. Study of antitussive potential of Glycyrrhiza glabra &Adhatoda Vasica using a cough model induced by sulphur dioxide gas in mice, Yasmeen Jahan & H.H. Siddiqui, International journal of pharmaceutical science & research, IJPSR, 2012; VOL.3(6):1668-1674
- [4]. Eucalyptus oil- induced seizures in children: Case Reports & review of the literature, Sai chanderDudipala, Publons 2021;12(01);112-115
- [5]. Essential oils Chemical characterisation & investigation of some biological activities: A critical review Wissal Dhifi, Sana Beellili, Sabrine Jazi MDPI Dec.2016
- [6]. Mohammad M. Zarshenas ,Mahmoodreza MoeinAn Overview on Ajwain (Trachyspermum ammi) Pharmacological Effects; Modern and TraditionalMarch 2014Journal of Natural Remedies 14(1):98-105
- [7]. Gersbach PV, Reddy N. carvacol and thymol characterization in Carum copticum (Apiaceae) Ann Bot. 2002; 90(2):253–57

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- [8]. Sivropoulou A, Papanikolaou E, Nilolaou C, Kokkini S, Lanaras T, Arsenakis M. Antimicrobial and cytotoxic activities of ajwain essential oils. J Agric food chem. 1996; 44: 1202-5.
- [9]. Hejazian S. Antimicrobial Effect of essential oil (EO) from carumcopticum World J Med Sci 2006
- [10]. Yassa N, Akhani H, Aqaahmadi M, Salimian M. Essential oils from two endemic species of Apiaceae from Iran. Z Naturforsch C 2003; 58:459-63.
- [11]. Reference book of INDIAN MATERIA MEDICA with Ayurvedic, Unani, Tibbi, Siddha, Allopathic, Homeopathic, Naturopathic & Home remedies, Appendices & Indexes VOLUME ONE By DR. K.M. NADKARNI BOMBAY POPULAR PRAKASHAN Page No. 529 & 1028
- [12]. Qualitative phytochemical analysis of ajwain (Trachyspermum ammi) From North West Iran.
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