

Ajwain (*Ptychotis ajowan*) A Review

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Ajwain is a common drug used in many single and compound formulations. It is described as digestive, appetizer, emmenagogue and carminative etc, in Unani literature. Besides its use in medicine, the seeds and essential oil have many other uses like in pickles, biscuits, confectionary and beverages. The present paper discuss about the pharmacological actions, therapeutic uses and pre-clinical studies of Ajwain.

Keywords: Ajwain, *Ptychotis ajowan*, Unani.

Introduction

It is the fruit/seed of *Ptychotis ajowan* DC, (*Trachyspermum copticum*) *Carum copticum* Hiern^{1,2}. The plant is the native of Egypt. It is cultivated around the Mediterranean Sea and in South West Asia extended from Iraq to India⁴. The fruit has very pungent aromatic taste and on rubbing, gives a strong aromatic odour resembling that of thyme³. An important use of seeds in medicine is as a remedy for indigestion. Externally, a paste of the crushed fruit is applied for relieving colic pains. It is also used in the preparation of lotions and ointments⁴. It has undergone lot of clinical and pre-clinical studies.

Pharmacological Actions

Anticonvulsant (*dāfa'-e-tashannuj*)^{7, 8}
 Anti emetic (*mana-e-qai*)^{7, 8}
 Antiseptic (*dāfa'-e-ta'ffun*)^{7, 8, 3}
 Antispasmodics (*dafa'-e-tashannuj*)^{7, 8, 3, 2}
Dafe Balgham^{7, 11}
 Eye cleanser (*Jali-e-Basr*)^{12, 21}
 Digestive (*Hazim*)^{7, 8, 2, 21, 14, 5}
 Aphrodisiac (*Mubhi*)^{21, 12}
 Diaphoretic (*Moariq*)^{12, 21, 9, 6}
 Diuretic (*Mudir-e-Baul*)^{7, 8, 12, 21, 9, 6, 14, 5}
 Galactagogue (*Mudir-e-Sheer*)^{12, 21}
 Emmenagogue (*Mudir-e-Tams*)^{12, 21, 9, 6, 7, 5, 14, 13, 25}
 Deobstruent (*Mufatteh Sudad*)^{12, 21, 14, 13, 5, 16}
 Carminative (*Muhallil-e-Riyah*)^{7, 8, 3, 2, 12, 21, 14, 13, 5, 16, 15, 17}
 Anti inflammatory, Resolvent (*Muhallil-e-Warm*)^{7, 8, 12, 21, 9, 5, 17}

Desiccant (*Mujaffif*)^{12, 21, 9, 6, 25}
 Stomachic (*Muqawwi-e-Me'da*)^{7, 8, 3, 2}
 Eliminates viscid secretions (*Munaqqi-e-Ratoobat-e-Lazja*)^{9, 6, 12, 21}
 Purgative (*Mushil*)^{7, 12, 21, 5, 15, 9, 6}
 Appetizer (*Mushtahi*)^{7, 8, 14}
 Stimulant (*Moharrik*)^{3, 1, 2, 7, 8, 12, 21, 14, 5, 9, 6}
 Tonic (*Muqqawwi*)⁸

Therapeutic Uses

Opium addiction (*afyun ki Aadat*)^{21, 5, 9, 6}
 Uterine diseases (*amraz-e-reham*)^{21, 9}
 Syphilis (*aatishak*)¹¹
 Nervous disorders (*asbi amraz*)^{9, 6}
 Atonic dyspepsia (*Su 'i-hazam*)^{7, 8, 3, 1, 2}
 Organomegaly (*Azm-e-Ahsha*)^{6, 9}
 Bad breath (*bakhrul fam*)^{12, 21, 9, 13}
 Pityriasis (*bahaq*)^{21, 5, 9, 6, 13, 25}
*Baroodat-e-meda*⁹
Baroodat-e-jigar^{25, 13, 21, 12, 15}
Baroodat-e-ahsha^{21, 9}
 Leucoderma (*bars*)^{25, 13, 21, 12, 15, 5, 9, 6}
 Acne/pimples (*basoor-e-labani*)^{25, 13, 21, 9}
 Cholera (*haiza*)^{7, 8, 1, 2}
 Colic pain (*qaulanj*)¹
 Burping (*dakar*)^{12, 5, 9, 6}
 Pain of organs (*dard-e aza*)^{12, 9, 17}
 Pain of scorpion sting (*dard-e-gazidan-e-aqrab*)^{16, 15, 6}
 Chest pain (*dard-e-seena*)^{13, 12, 21, 9, 6}
 Diarrhoea (*ishal*)^{8, 3, 1, 2}
 Hiccups (*fawwaq*)^{12, 5, 9, 6, 21, 7, 8}
 Paralysis (*falij*)^{12, 5, 9, 6, 21}
 Anorexia (*Fasad-e-ishtiha*)⁶
 Scorpion sting (*gazidan-e-aqrab*)^{13, 21, 9, 25, 5}
 Nausea (*Ghisyan*)^{13, 21, 12, 9, 6, 25}
 Fevers (*Humiyat*)^{9, 6, 21, 12, 25, 5}
 Hysteria (*Ikhtinaqur reham*)⁸
 Atony (*Istarkha*)^{12, 21}
 Ascitis (*istisqua*)^{12, 21, 5, 14, 7}
 Skin diseases (*jildi amraz*)²¹
 Blood coagulated under skin (*khoon munjamid tehtul jild*)^{9, 6, 21, 25, 5}
 Tenesmus (*maghas*)^{9, 6, 21, 25, 13}
 Worm infestations (*kirm-e-meda*)^{7, 8, 9, 6, 21, 25, 5, 13}
 Gastrointestinal colic (*maror*)^{7, 8, 21}
 Flatulence (*nafaq-e-shikam*)⁵
 Dysentery (*pechish*)^{7, 8, 5}
 Vomiting (*qai*)^{7, 8, 3, 2, 9, 6, 21, 12, 5}
 Tremor (*ra'sha*)^{9, 21, 12, 6}
 Hardness of liver (*salabat-e-jigar*)^{9, 21, 12, 6, 5, 7, 14}
 Hardness of spleen (*salabat-e-tihal*)^{9, 21, 12, 6, 7}
 Renal and vesicular calculi (*sang-e-gurda-wa-masana*)^{9, 6, 21, 12, 25, 5}

Gonorrhoea (*Suzāk*)¹¹
 Impaired hearing (*suql-e-samat*)^{5, 9, 21, 12}
 Dyspepsia/food poisoning (*tukhma*)^{6, 21, 7, 8, 1, 2}
 Dysuria (*u'sr-e-baul*)^{5, 9, 6, 21, 13, 25}
 Dyspnoea (*u'sr-e-tanaffus*)^{9, 6}
 Inflammation of organs (*warm-e-Aa'za*)^{6, 12}
 Orchitis (*warm-e-unsain*)^{12, 6, 9, 21}
 Whooping cough (*shaheeqa*)^{7, 8}
 Umbilical hernia (*naaf baramda*)^{5, 9, 6, 21}

Pharmacological Studies

Anti-microbial activity^{37, 38, 39, 40}
 Activity in eye disease²⁶
 Cytotoxic activity²⁹
 Anti histaminic activity³⁰
 Antihypertensive activity²⁸
 Spasmogenic activity²⁷
 Antispasmodic activity²⁸
 Bronchodilator activity²⁸
 Hepatoprotective activity²⁸
 Antitussive effects³¹
 Inhibitory effect on intestinal contractions³²
 Effect on gastric acid secretions³³
 Hypolipidemic activity³⁴
 Effect on hepatitis C virus³⁵
 Antiaggregatory effects³⁶
 Ameliorative⁴¹
 Anti inflammatory⁴²
 Antihelminthic⁴³
 Antilithiatic⁴⁴
 Antimutagenic⁴⁵
 Antioxidant⁴⁵
 Teratogenic activity⁴⁶

Conclusion

The scientific analysis of Ajwain proves many of the activities mentioned in Unani literature. Further investigations are needed to find out the mechanism of action, active principle(s) and utility of Ajwain in clinical practice. It should be thoroughly investigated so that it can be established as a standard drug.

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