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AN OVERVIEW ON THE PHARMACOLOGICAL ACTIVITIES OF SHARBAT-E-UNNAB

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ABSTRACT

Sharbat is a significant oral liquid Unani dosage form. The primary advantage of preparing pharmaceuticals using sharbat is preserving them and preventing putrefaction and fermentation since they are done with sugar or honey. Sharbat-e-Unnab is a sweet-tasting liquid dosage form made from the decoction of Ziziphus jujuba fruit. It has been used for a long time in the treatment of skin diseases such as, Nar-Farsi (eczema), Urticaria and Blood heat suppression (Musakkin-e-Hiddat-e-khoon), Musaffi-e-khoon (Blood purifier) and Daf-e-ufoonat (Antiseptic). The major component of Sharbat-e-Unnab is Ziziphus jujuba fruit, which has carbohydrates, proteins, vitamins, and minerals. Polysaccharides, Alkaloids, Glycosides, Flavonoids, Ternoids, and Vitamin C are among its phytochemical ingredients. Studies on its pharmacological properties revealed effects that included Wound healing, Immunomodulatory, Anti-inflammatory, Anti-cancerous Antiallergic and Antioxidant properties.

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Keywords: *Sharbat-e-Unnab*, Unnab, Blood Purifier, *Unani Medicine*.

INTRODUCTION

While the Unani medical system frequently employed single medications for both prevention and cure, the use of compounded or multiherbal mixtures for therapy has also been practiced for hundreds of years.[4] Drinking is indicated by the Arabic term *sharbat*.[6] According to *Hkm. Kabeeruddin*, the word "*Sharbat*" refers to a sweet drink and is either *Persian* or *Urdu*.[5] *Sharbat-e-Unnab* is a highly significant Unani formulation that is mentioned in several classical Unani literatures, particularly in *Qarabadeen-e- Jalali*, *Ilajul Amraz*, and *Bayaz-e-Kabeer*. It is used as, a blood heat suppressant, a *Musaffi-e-khoon* (blood purifier), an amraz-e jild (skin diseases), a *Fassad-e-khoon* (blood putrefaction), etc.[1,2,3] Among Amraz-e-Jild wa *Fasad-e-Khoon* (skin illnesses and blood putrefaction), this formulation has several activities, including *Musaffi-e-Khoon* (blood purifier), *Musakkine-Hiddat-e-khoon*.[9,10]

Composition of *Sharbat-e-Unnab*:

The composition of *Sharbat-e-Unnab* as following;[1,11,13,14,15,16]

S. No.	Ingredients	Weight
1	Unnab	500 g
2	Sugar	1500 g

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Vernacular names of the plant:

Language	Vernacular names
Hindi	Ber
English	Chinese Date, Jujube
Punjabi	Beri
Sanskrit	Rajabadari
Gujarati	Bordi
Sindhi	Jangri
Botanical	Ziziphus jujube
Chinese	Da Zao and Hong Zoa

Scientific classification (Plants, USDA, 2017)

Kingdom	**Plantae - Plants**
Subkingdom	Tracheobiont - Vascular plants
Superdivision	Spermatophyta - Seed plants
Division	Magnoliophyta - Flowering plants
Class	Magnoliopsida - Dicotyledons
Subclass	Rosidae
Order	Rhamnales
Family	Rhamnaceae – Buckthorn family
Genus	*Ziziphus Mill.* - Jujube
Species	*Ziziphus sativa* Lam. - Indian jujube

Botanical description, Habitat and Distribution of *Unnab*:

A small tree or shrub with spines that can grow up to 10–12 meters high; leaves that alternate between being ovate to ovoid-lanceolate, measuring 3–7 cm long by 2-3.5 cm wide; apex slightly obtuse, base oblique; margin closely serrulate, 3 veins; Inflorescence: an axillary cyme; Flowers perfect, with 7-8 greenish-yellow flowers in each cluster; Fruits drupe, 1.5–5 cm long, ovate to oblong, dark reddish-brown when ripe, with a single stone encircled by fleshy pulp.[17]

Typically grown in India, Japan, China, Africa, Malaysia, Afghanistan, and Australia, it is also grown in Nepal, Rangpur, Baghdad, Jurjan, Khata, Punjab, Himalayas, Kashmir, Baluchistan, and arid, hot parts of Western India, primarily Rajasthan and Bengal.[17,18,19,20]

Unani description *of Unnab*:

According to *Najmul Ghani*, the fruit of a tree like Ber is called *Unnab*. It tastes delicious and has a crimson hue.[21]

Mizaj (Temperament); *Motadil*, between *dry* and *wet*[22,23]

Hot 2^0*Dry* 1^{0}[24]

Medicinal actions of *Unnab*:[21,25,26,27,28,29,30]

- *Musakkin-e-hiddat-e-khoon wa Safra* (Blood and bile refrigerant)
- *Musaffi-e-khoon* (blood purifier)
- Dafe hikka (anti pruritus)
- *Daf-e-Alam-e-Kuliya wa Masana* (Analgesic)
- *Mukhaddir* (Anaesthetic)
- *Munzij-e-Akhlat-e-Ghalizah* (Concoctive of viscous humour)
- *Mulayyin-e- Sadr* (Emollient of chest)
- *Munaffis-e-Balgham* (expectorant)
- *Daf-e-Sual wa Rabu* (Antitussive and anti asthama)
- *Daf-e-Khashunat-e-Halaq wa Sadar*
- *Mulayyin* (laxative)
- *Muza'if-e-Bah* (Anaphrodisiac)
- *Muqallil-e-Mani* (Reducer of semen)
- *Mundamil-e-Quruh* (cicatrizant)
- *Nafe sozish-e-Baul*
- *Mukhaddir* (Anaesthetic)
- *Musaffi -e-Saut*
- *Musakkin-e-Atash*
- *Mushil-e-Akhlat-e-Raqiqa*
- *Habisuddam* (styptic)
- *Muqauwi-e-Meda* (stomachic)

Mawaq-e-Istemal (Therapeutic uses of *Unnab*):

- *Busoor* (Skin eruptions), Sore throat, Dry cough.[31,32]
- *Hkm Azam Khan* stated that *Sharbat -e-Unnab* is very helpful in *Mashara* (Urticaria) in his book *Muhit-e-Azam*, *Amraz-e-Riatain* (Lungs diseases), *Nazfuddam* (Hemorrhage), *Hiddat-e-Khoon*, *Ghalayan-e-Khoon*, *Judri* (Chechak, Small pox) and *Hashba* (Measles), Khashunat-e-Halaq (sore Throat), Sozish-e-Baul (burning micturition), *Surfa Yabis* (dry cough); *Damma* (asthma), *Bahhat us Saut* (hoarseness of voice), *Hikka* (pruritus).[10,25,33]

Phytochemical constituents:
Ziziphus jujuba fruits include a variety of components that have been classified into many types of chemical compounds.

- Polyphenols (flavonoids, anthocyanins, and tannins), alkaloids, terpenoids, polysaccharides, organic acids, carotenoids, fatty acids, sterols, proteins, vitamins, and minerals are some of its chemical constituents.[34,35,36]

Pharmacological actions of *Ziziphus jujuba:*

Antioxidant and Anti-Inflammatory Effects
Research indicates that *jujube* has higher levels of phenolics and ascorbic acid than other typical fruit varieties. Additionally, scavenging techniques were used to evaluate the antioxidant capacity of *jujube* extract based on a drop in power, revealing variations in the antioxidant and free radical scavenging abilities of various *jujube* cultivars.[37] The physiochemical characteristics and antioxidant potential of *jujube* were discovered to be cultivar-driven. The oil extracted from *Z. jujube* seeds has also been shown to have antilisterial and antioxidant qualities.[38] The edible components of *jujube* include alkaloids, glycosides, flavonoids, phenolics, and phytochemicals with anti-inflammatory properties. Histamine and 5HT-induced inflammations are likewise avoided by jujube extract. In conclusion, it influences immunological responses and antioxidant activity via suppressing T-cell proliferation.[39,40,41]

Anticancer Activity
Numerous researches have documented the anticancer properties of *jujube* fruit. Apoptosis and differential cell cycle arrest in HepG2 cells have been shown to be concentration-dependently altered by *jujube* extract, for

example, leading to decreased cell viability.[42,43] *Jujube* also selectively inhibits the development of malignant cells and induces apoptosis. This may be a viable approach towards creating an effective cancer therapeutic. Moreover, the specific anticancer effect of *jujube* is due to decreased cell development and activated apoptosis, which might serve as the foundation for an effective cancer treatment plan.[44,45]

Wound-Healing Effect:
Reports have indicated that *jujube* fruit is beneficial for treating wounds and burns. Another name for it is the "fruit of life."[46,47]

Preparation of *Sharbat-e-Unnab*
Sharbat-e-Unnab is prepared in according the *National Formulary of Unani Medicine* (*NFUM*) and *Bayaz-e-Kabeer* Vol. II. After crushing the 500g of *Unnab*, soak it in 2 liters of water. After that, boil the soaked *Unnab* until the water content is reduced by half, then thoroughly mash and sieve them. Then this decoction is used to make *Qiwam* with 1.5 kg of sugar.[1,12]

As per *Qarabadeen-e-Majeedi*, an alternative technique of preparation involves smashing 600g of *Unnab* into minute pieces and letting them soak in 4 liters of water for 18 hours. The *Unnab* should then be boiled in the morning until the water content is reduced by half, and muslin fabric should be used to filter them. If there are any impurities that have accumulated on the top layer of the Sharbat, they should be removed with a spoon before the sugar is added and the mixture is cooked. Once you get the *Shabat* consistency, strain and bottle.

Af'al wa Khawas (Actions of Sharbat-e-Unnab)
Musaffi-e-Khoon (blood purifier)[1]

Musakkin-e-Hiddat-e-Khoon.[48]

Dafa-e-Suaal (antitussive).[13]

Muskkin-e-Alam-e-Sadr (analgesic).[3]

Munaffis-e-Balgham (expectorant).[2]

Mawaqa-e-Istemal (Therapeutic uses of *Sharbat-e-Unnab*)

Hiddat-e-Khoon wa Ghalba-e-Khoon.[48,14]

Judri (small pox).[1]

Hasba (measles).[14,49]

Mashra (urticaria).[50]

Suaal (cough).[16,51]

Wajausadr (chest pain).[11,50]

Zaturriya (pneumonia).[23]

Miqdar-e-Khurak (Therapeutic doses)

2- 4 *Tola* (24- 48 ml).[1,50]

4 *Tola* (48ml) with *Arq mundi* 5 *Tola* and *Arq-e-Gaozaban* 7 tola.[15]

20 to 50 ml with water or with any arq.[52]

25 to 50 ml with water or goat milk.[48]

CONCLUSION

A well-known blood purifier with a pleasant flavor, *Sharbat-e-Unnab* has been used for generations to cure a variety of dermatological conditions, including urticaria, measles, smallpox, eczema, and psoriasis etc. This formulation has various actions such as *Dafa e Sual* (antitussive), *Musaffi-e-Khoon* (Blood purifier), *Musakkine-Hiddat-e-Khoon* (suppressive blood heat) etc. Additionally, it helps with a few respiratory conditions including pneumonia and cough. Recent pharmacological research has demonstrated *Unnab's* potential as an antioxidant and anticancerous. Clinical research on Acne vulgaris and Primary Hypertension has been conducted on *Sharbat-e-Unnab*. To investigate its further pharmacological activities, *Sharbat-e-Unnab* may be the subject of future research.

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