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Review Article

Sharbat- E- Unnab: A Review on Potent Unani Formulation

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Abstract

Unani System of Medicine is also known as Greco-Arabic medicine, and developed into an elaborate scientific medical system by Arab and Persian physicians, such as Rhazes (850-925AD), Avicenna (980-1037AD), Al-Zahrawi and Ibn Nafis. It is practiced in India since eighth century AD and is a recognized Indian traditional system of medicine with good infrastructure for education; research and manufacturing units which are well regulated by the Government. In Unani medicine there are well developed pharmacopeia and pharmaceutical processes for single & compound formulations for the treatment of several local and systemic ailments. The most important formulation among various Unani formulations is *Sharbat-e-Unnab*, a Unani pharmaceutical preparation acting as *Dafa-e-Sual* (antitussive), *Khashunat-e-Halaq* (sore throat), *Musaffi-e-Khoon* (blood purifier), *Musakkin-e-Hiddat-e-Khoon* (suppressive blood heat) etc. *Unnab* (*Ziziphus jujuba* Mill. / Jujube) fruit is the main ingredient of the formulation. *Unnab* is also an ingredient of Unani *Joshanda* which has been recommended for relief in upper respiratory tract symptoms in mild cases of COVID-19. Few scientific studies related to *Sharbat Unnab* have been conducted in problems like Acne vulgaris and Primary Hypertension. Apart from this *Unnab*, the main ingredient has also been studied for its antioxidant and anti-cancerous activities. This formulation is being used by Unani physicians since time immemorial. Therefore, this paper will describe the brief review of the formulation along with its ingredient.

Keywords: Sharbat-e-Unnab, Unani medicine, Sharbat, Unnab, *Ziziphus Jujuba* Mill.

INTRODUCTION

Unani System of Medicine is also well-known as Greco-Arabic medicine, and developed into an elaborate scientific medical system by Arab and Persian physicians, such as Rhazes (850-925AD), Avicenna (980-1037AD), Al-Zahrawi and Ibn Nafis. It was acquainted in India since 18th century AD and become a native soon. Indian Unani physicians such as Akbar Arzani (d.1721 AD), Abu Bakr Kashani, Badruddin Dimashqi (Famous physician of Ala'uddin Khilji's reign) (1190-1248 AD), Bahwa ibn Khwas (d.1519 AD), 'Ali Gilani (1554-1609 AD), Hashim 'Alvi Khan (1669-1749 AD), Ajmal Khan (1868-1927 AD) and Hakim Muhammad Kabiruddin (1894-1976 AD) were valuable contributors for popularization of Unani medicine. The scholars and physicians of Unani system of Medicine settled in India carried out clinical trials and experiments making important additions to the scope of Medicine. Today, India has a strong infrastructure for education, research as well as manufacturing units in Unani medicine.

The system is focused on the Hippocratic theory of *Akhlat-e-Arba* (four humours-*Dam* (Blood), *Balgham* (Phlegm), *Safra* (Yellow Bile), and *Sauda* (Black bile) and *Arkan-e-Arba* (four elements- *Arz* (Earth), *Hawa* (Air), *Ma* (water) and *Nar* (fire)). In Unani medicine there are well developed pharmacopeia and pharmaceutical processes for single & compound formulations. Various compound formulations such as *Majun* (semi-solid preparation), *Tiryaq*, *Khamira*, *Lauq*

(linctus), *Huboob* (pills), *Aqras* (tablets), *Shayyaf* (suppository), *Sharbat* (syrup), *Araqiyat* (distillates) etc. are being practiced for the curing of numerous disorders. Among them *Sharbat* is the formulation which is prescribed for treatment of different ailments such as *Sual* (cough) and *Amraz-e-jild wa Fasad-e-Khoon* (skin diseases and blood putrefaction) etc.

SHARBAT

Generally, the word *Sharbat* (English, sherbet) is derived from Persian "Sharbat", and sherbet is from Turkish "Serbet", both of which come from Arabic "Sharba" a drink, from "Shariba" to drink which is prepared from white sugar, honey, misri (rock sugar) and jaggery dissolved in water. It is an important invention of a renowned Unani physician, Pythagoras (an ancient Greek philosopher and mathematician). Characterization of *Sharbat* includes its sweet taste (i.e., good palatability) which is the prime reason to prepare this dosage form because of impalatable raw herbal drugs. It is prepared by the decoction or infusion of its ingredients or by preparing the juice of the fruit and then the decoction is mixed with sugar and boiled to a required consistency i.e. one tar.¹⁻³

SHARBAT-E-UNNAB

Sharbat-e-Unnab is an important Unani *sharbat* mentioned in different Unani classical literature. This formulation is practiced as *Dafa-e-Sual* (antitussive) for curing of *sual* (cough) and *Khashunat-e-Halaq* (Sore Throat). This formulation has various actions such as *Musaffi-e-Khoon* (blood purifier), *Musakkine-Hiddat-e-khoon* etc, in *Amraz-e-Jild wa Fasad-e-Khoon* (skin diseases and blood putrefaction) like *Judri* (small pox) and *Mashara* (urticaria).^{4,5} *Unnab* fruit is used in poor appetite and colitis.⁶ It is recommended for prophylaxis and for providing relief in upper respiratory tract infections in mild cases during COVID-19.⁷ Syrup of dried fruit is used for bronchitis.⁸ Unripe and acrid *Unnab* are useful in diarrhoea and various diseases of rectum. The drug is also recommended prophylactically for ailments of liver.⁹

UNNAB (*Ziziphus jujuba* Mill.)

The shrub of *Unnab* is spiny deciduous or a small tree having height up to 10-12 m. It is usually cultivated in India, Australia, China, Japan, Afghanistan, Africa and Malaysia.¹⁰

Medicinal actions of *Unnab*^{5,7, 11-15}

Musaffi Khoon (purifier of blood); *Munzij-e-Akhlat-e-Ghalizah* (concoctive of viscous humour); *Mulaiyin e Sadr* (lungs emollient); *Munaffis Balgham* (expectorant); *Dafe Sual wa Rabu* (antitussive and for asthma); *Mulaiyin* (laxative); *Musakkine-Hiddat-e-Khoon wa Safra* (blood and bile refrigerant); *Muza"if-e-Bah* (anaphrodisiac); *Mundamil-e-Quruh* (cicatrizant); *Dafe Alam* (analgesic); *Mukhaddir* (anaesthetic); *Dafe Hikka* (anti pruritus); *Habisuddam* (styptic); *Muqawwi-e-Meda* (stomachic).

Therapeutic uses of *Unnab*

Busoor (skin eruptions);¹⁷ *Amraz-e-Riatain* (lungs disorders); *Mashara* (urticaria); *Amraz-e-Sadar* (thoracic diseases); *Laza-e-Meda* (stomach irritation); *Judri* (small pox); *Hasba* (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).^{5, 11, 18}

Phytochemical constituents

Various significant chemical constituents are observed in *Ziziphus jujube* Mill.: Cyclic peptide alkaloids, Antibacterial peptide alkaloid; Glycosides, Acylated flavone-C glycosides; Saponins; Terpenoids, Triterpene esters; Phenolic and Flavonoid compounds.¹⁹⁻²¹

PHARMACOLGICAL ACTIONS OF UNNAB

Antioxidant activity

A comparative study was conducted on antioxidant components and antioxidant activity of the raw and cooked peel of *Ziziphus Jujuba* Mill. In this study, the peel was analyzed for polyphenols, glutathione and tannin contents. Also, methanol and aqueous extracts were analyzed for flavonoid, saponin contents and antioxidant activity. It was observed that antioxidant activities of all the extracts increased with rising concentration except in hydro alcoholic extract. The results of the study showed the raw and cooked peel of *Ziziphus jujuba* Mill. have a great potential for utilization as a source of natural antioxidant.²²

Anticancerous activity

A study was carried out to evaluate the anticancerous activity against tumour cell lines i.e., the cytotoxic triterpenoids which is extracted from the fruits of *Ziziphus jujube*. In this study, the lupane-type triterpenes showed high cytotoxic activities. The

results of the study concluded that the coumaroyl moiety at the C-3 position of the lupane-type triterpene which may play an important role in enhancing cytotoxic activity.²³

SCIENTIFIC STUDIES ON SHARBAT-E-UNNAB

A clinical study was conducted to assess the safety and efficacy of two Unani Pharmacopoeial formulations *Itrifal Shahatra* and *Sharbat Unnab* in the management of *Acne vulgaris*. Thirty-six patients diagnosed with acne, were included and diagnosed on the basis of history and dermatological examination. The test drugs were administered orally for 21 days. The results of the study showed significant reduction in the grading and VAS scores of post-treatment group ($P < 0.01$) as compared to pre-treatment scores. It was observed that the test drug do not had any adverse effects and its compliance was also good. Therefore, it was concluded that the test drugs are safe and effective in the management of *Busoor-e-labniyah* (*Acne vulgaris*).²⁴

An open labeled randomized standard controlled study was carried out to evaluate the efficacy of *Sharbat-e-Unnab* in Primary Hypertension. This study was conducted up on forty cases randomly assigned to test ($n=20$) and control group ($n=20$). *Sharbat-e-Unnab* (25ml twice a day orally after meal) was given to test group and Atenolol (1 tablet-25 mg per day orally after meal) to control group, for 6 weeks. The results of the study revealed that test drug is effective in reducing both subjective and objective parameters (B.P) without any adverse effect. Thus, it can be concluded that test drug was found effective in the management of Hypertension.²⁵

METHODS OF PREPARATION

According to Unani classical literature, the preparation of *Sharbat-e-Unnab* contains only 1 ingredient i.e., *Unnab* (*Ziziphus jujube* Mill.). In Table No. 1, the formula for preparation of *Sharbat-e-Unnab* mentioned in Bayaz-e-Kabeer, Vol -II & NFUM as following;^{2,3}

Table 1: the formula for preparation of Sharbat-e-Unnab

S. No.	Ingredients	Weight
1.	Unnab (<i>Ziziphus jujube</i> Mill.)	500 g
2.	Sugar	1500 g

Preparation of Sharbat-e-Unnab

The method of preparation of *Sharbat-e-Unnab* is as per Bayaz-e-Kabeer Vol II and National Formulary of Unani Medicine(NFUM).Soak *Unnab* (500gm) after crushing in 1.5 liters of water. Thereafter, boil soaked *Unnab* till the quantity of water becomes half and these are thoroughly mashed and filtered. This form is called *Joshanda* (decoction) of *Unnab*. Thereafter, sugar is added in the decoction to achieve *Qiwam* (consistency) of *Sharbat* at full flame and if any impurity accumulates on the top level of *Sharbat* that should be removed by using spoon. Conventionally the consistency is made of *ek tar* (70% in consistency). Afterwards, it is kept aside for cooling; and after filtration the *Sharbat* should be stored in bottles.^{2,3}

Another method of preparation as per Qarabadeen-e-Majeedi is take the *Unnab* 600gm and crush them in small pieces and soak overnight in 4 liters of water. Then, boil soaked *Unnab* in morning till the quantity of water becomes half, after that they are filtered with the help of muslin cloth. Thereafter, the sugar is added and the mixture is heated, if any impurity accumulates on the top level of *Sharbat* that should be

removed by using spoon. After achieving the consistency of *Sharbat*, filter and store in bottles.¹

Actions and Uses of *Sharbat-e-Unnab*

Musaffi-e-khoon (blood purifier);⁴ *Musakkine-hiddat-e-khoon* (blood and bile refrigerant);¹ *Dafa-e-Suaal* (antitussive);⁴ *Muskkin-e-alam-e-sadr* (analgesic);⁶ *Munaffis-e-Balgham* (expectorant);^{4, 26} *Mashra* (urticaria);²⁸ *Judri*(small pox);⁴ *Hasba* (measles);²⁸ *Waja-ur-sadr* (chest pain);²⁹ *Suaal* (cough);³⁰ *Zat ur Riya*(pneumonia).³¹

Dosage and Method of administration: 2- 4 Tola (24- 48 ml);^{4,29} 4 Tola (48ml) with *Arq Mundi* 5 Tola (60 ml) and *Arq Gaozaban* 7 Tola (84ml).³¹ 20 to 50 ml with water or with any *Arq* or goat milk.^{2,32}

DISCUSSION

Sharbat-e-Unnab is widely used for *Dafa e Sual* (antitussive) for the treatment of *sual* (cough) and *Khashunat-e-Halaq* (Sore Throat). *Unnab* fruit is the main ingredient of the *Sharbat* and is recommended for prophylaxis and for providing relief in upper respiratory tract infections in mild cases during COVID-19. *Unnab* is deciduous or small tree with a height of 10-12 m. It has various medicinal actions and uses such as *Mulayyin-e-Sadr* (emollient of lungs); *Munaffis Balgham* (expectorant); *Dafe Sual wa Rabu* (antitussive and anti-asthma), *Surfa Yabis* (dry cough); *Damma* (asthma); *Bahhat us Saut* (hoarseness of voice), etc. *Unnab* has several important chemical constituents like Cyclic peptide alkaloids, Cyclopeptide alkaloids, Antibacterial peptide alkaloid etc. Pharmacological studies are carried out on *Unnab* for Antioxidant activity and Anticancerous activity.

Sharbat e Unnab is a popular formulation mentioned in Unani classical literature and is being manufactured by various GMP certified pharmaceutical companies such as Hamdard laboratory and Rex Remedies Pvt. Ltd and New Shama Laboratories Private Limited. It has various actions as *Musaffi-e-Khoon* (blood purifier), *Dafa-e-Suaal* (antitussive), *Munaffis-e-Balgham* (Expectorant), *Mashra* (urticaria), *Suaal* (cough) and *Zat ur Riya* (pneumonia) etc. scientific studies on *Sharbat Unnab* have been done on Acne vulgaris and Primary Hypertension.

CONCLUSION

Sharbat is one of the Unani drug dosage forms. In Unani tibb, *Sharbat* is concentrated liquid which is prepared from decoction or fruit juices by adding sugar to yield a required consistency. *Sharbat-e-Unnab* is an important Unani compound formulation mentioned in different Unani classical literature whose main ingredient is *Unnab*. This formulation has various actions such as *Dafa e Sual* (antitussive), *Musaffi-e-Khoon* (Blood purifier), *Musakkine-Hiddat-e-Khoon* (suppressive blood heat) etc. *Unnab* fruit is the main ingredient of this *sharbat* which is used for poor appetite, colitis, bronchitis, cough, etc. Some scientific studies on *Sharbat e Unnab* have been done on Acne vulgaris and Primary Hypertension. This formulation may be considered for further studies to explore its other pharmacological actions.

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