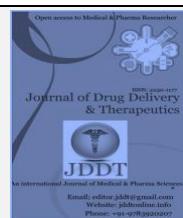


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Review Article

Zahar Mohra (Bezoar) an Alexipharmac Unani Mineral Drug: Review

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ABSTRACT

Rhazes (855-925 AD) the great scholar of Unani System Medicine (USM), initially classified Materia Medica according to animal, mineral and plant origin. *Zahar Mohra* is a Greenish white, good-looking mineral stone with a slippery feel having a good smell and taste obtained from mines. In USM it is considered to be a universal antidote. The great Unani Scholar Yuhannā Māsawayh (777-857 AD), was one of the first physicians who mentioned the medicinal uses of *Zahar Mohra*. In Unani Medicine it is used to treat epidemic diseases such as *Haiza* (Cholera), *Tawoon* (Plague), as an antidote for different poisoning and to provide strength to vital organs. To check adulteration the quality standard of *Zahar Mohra* has been laid down. All the available information regarding this historically important stone has been compiled which will help the researcher to find a solution of pandemic disease in the current scenario.

Key words: *Zahar Mohra*, Unani Medicine, *Fade Zahar Kani*, Mineral Bezoar

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INTRODUCTION:

The substances cause injury, disease or death of living tissues when swallowed, injected or inhaled may be called poison. In the primitive era the man differentiated the useful plants, minerals and animals from poisonous one either by trial and error or through folklore¹. Rhazes (855-925 AD) the great scholar of Unani Medicine, initially classified Materia medica according to animal, mineral and plant origin². The substances with properties to reverse, counteract, treat or manage a poisoned state may be called antidote³. Bezoar stone is considered to be an universal antidote of Unani Medicine. It is available as mineral or animal origin. The bezoar stone of mineral origin is popularly known as *Zahar Mohra*, whereas bezoar of animal origin is called *Padezahar* or *Fade zahar* or *Bade zahar* or *Pade zahar Haiwani*⁴.

Material AND Methods:

In the present review Unani classical literature was searched for its complete description viz. temperament, actions, therapeutic, and dosage uses etc. For quality standards and other aspects to prove the importance of *Zahar Mohra* computerized databases such as Medline, Pubmed, Ovid SP,

Google Scholar and Science-direct were searched. All the information on *Zahar Mohra* available in Urdu, Persian, Arabic and studies published abstract were included.

Vernacular names^{4,6,8-20}

Arabic: *Hajr-us-sum*, *Bad Zahr Kani*, *Hajrul-bahr* English: Serpentine, Green Marble, Mineral Bezoar Hindi: *Jahara moharā*, *Pedaru*, *bazaar* Persian: *Fad Zahar Madani* Latin: *Lapis bezorticum*, Sanskrit: *Naagpashad*, *Haritashm*

Description and History:

ZaharMohra is a Greenish white, good-looking mineral stone with a slippery feel having a good smell and taste obtained from mines. Various coloured such as white, yellow, green, dusty, and abrasive are described in literature, however the pale stones with white and green hues are considered of good quality⁴. It is also known as Bezoar stone or Serpentine. The word "bezoar" is derived from Arabic word *bad zahr* and from Persian word *pād-zahr* *Pa* means protection and *Zahr* means poison, which literally means "antidote"⁵. Due to its slippery feel and green patterned appearance like serpent (snake) it is referred as Serpentine⁶.

The great Unani Scholar Yuhannā Māsawayah (777-857 AD), was one of the first physicians who mentioned the medicinal uses of *Zahar Mohra*. Abu al-Rayhan Muhammad ibn Ahmad al-Biruni (973-after 1050), author of *Kitab al-Jamahir fi ma'rifat al-jawahir* (Book on the Multiple Knowledge of Precious Stones) exclusively to gems, minerals, and metals. He quoted:

"As a matter of fact, this stone should have been the costliest among stones, for, whereas jewels are things of the body and adornment, and are of no use in body ailments, the bezoar stone guards the body and the soul and saves them from being harmed".⁷

Occurrence

It is found in China, Khata (now part of China), Tibbet, and Iran (Qandhar, Khurasan). In India it is found in Ajmer and Kota Districts of Rajasthan. *Zahar Mohra* found in Khata is considered of best quality and is known as *Zahar Mohra Khatai*^{4,6,8-20}.

Temperament

There is conflict in statement among Unani scholars for its temperament some says it is Hot and Dry^{4,6,9,11,12,15,17,19,20} some says it is Cold and Dry^{4,9} while some says it is Moderate towards hotness^{4,8,16}.

Action

Unani scholars mentioned it action as *Muqawwi-e-Aza-e-Raeesa* (tonic for vital organs), *Mufarreh* (Exhilarant), *Daf-e-Humma wabaiya* (Antipyretic for epidemic fevers), *Daf-e-amraz chasm* (anti ophthalmic diseases), *Daf-e-Tezabiyat* (antacid), *Tiryaq-e-samoom* (Antidote), *Muqawwi-e-bah* (aphrodisiac) and *Muqawwi-e-asab* (Nervine tonic), *Mohallil* (anti-inflammatory)^{4,6,8-20}.

Uses

According to their action Unani scholars recommended Uses in *Amraz wabaiya* (epidemic disease) such as *Haiza* (Cholera), *Tawoon* (Plague), antidote for poisons and *aqrab gazeeda* (scorpion sting), *Khafqan* (palpitation), *Qai wa ishal* (vomiting and diarrhoea) *Ashoob chasm* (conjunctivitis), *Hummiyat-e-wabaiya* (epidemic fever), *Humuzat-e-Meda* (gastric acidity).

In cases of all disease conditions mentioned above, it is given after grounding with *Arq Gulab* or *Araq Bed mushk* orally. In case of scorpion stings and other insect bites, it is applied locally after grounding with *Ara Gulab*. Local application along with *aab-e-kishneez sabz* (coriander juice) is beneficial in hot inflammations^{4,6,8-20}.

Potent Action

The potent action of *Muqawwi-e-Aza-e-Raeesa* (tonic for principal organs), *Daf-e-Sumoom* (antidote)^{4,6,8-20}.

Dosage

Unani scholars advocated for the use of powder and calx. For powder from its dose may be 1 gm (powder)^{4,6,8-20} for calx it may be 125 mg (calx)²⁷.

Elemental analysis/composition

When we define serpentine in geological terms, it is a metamorphosed rock consisting of a group of minerals having magnesium, iron, nickel, aluminium, zinc, manganese, silicon, aluminium, or iron. Chemically it is Hydrous magnesium iron silicate with the formula $(\text{Mg},\text{Fe},\text{Ni},\text{Mn},\text{Zn})_2\text{Si}_3\text{Al}_2\text{O}_5(\text{OH})_4$ ²¹.

Quality Standards of Zahar Mohra

In order to check adulteration, the Scientists have laid down the quality standard of *Zahar Mohra* stone for medicinal use.

Physical properties

Blackish green in colour, Crystalline, coarse grained in nature, soapy feel greasy in lustre, translucent, perfect cleavage, conchoidal fracture, tough, hardness ranges 3.5-5, specific gravity 2.5- 2.76 optically bi-axial, negative, weakly birefringent with refractive index range 1.546-1.554.²²

Chemical Properties

The sample gets decomposed and gives off a little water at around 500 degree, should contain not less than 30% magnesium oxide, 30 % Silica (SiO_2), 5% Ferric oxide (Fe_2O_3) and 5% calcium oxide (CaO) when analysed by gravimetric method. Should not contain more than 2 ppm of arsenic and 3 ppm of cadmium. May contain 0.15 % Nickel within $\pm 20\%$ of limits when analysed by Atomic Absorption Spectrophotometer²².

Muzarrat (Adverse Action)

According to Unani scholars the *Zahar Mohra* has no adverse reaction^{4,6,8,10-20}. However, some of the scholars are of the view that it can produce kidney stones if taken in excess amount⁹.

Musleh (Corrective)

Unani system of medicine also has a unique speciality of adding Corrective Drugs (Muslih Adwiya) to counter the toxicity of the main drug. Since the drug is not having any adverse reaction the Unani Scholars have not mentioned any corrective for it^{4,6,8,10-20}. The Scholar who says that it can produce urinary stone have mentioned Sharbat Bazoori as its corrective⁹.

Badal (Substitute)

Unani scholars also said that in case of non-availability of genuine medicine a substitute may be used. Most of the Unani scholars have mentioned Zamarrud and Zabarjad as its substitute^{4,6,8-20}.

Mashoor Murakkabat (Important Formulations)

Some important classical Unani formulations in which *Zahar Mohra* is one of the ingredients mentioned in National Formulary of Unani Medicine are as follows:

Habbe Ambar Momiyae, Habb-e-Zahar Mohra, Habb-e-Jawahir, Habb-e-Nishat, Habb-e-Tabasheer, Khamira Gaozaban Ambari Jawahar Wala, Kushta Zahar Mohra, Jawahir Mohra²³, Habb-e-Qabiz²⁴, Habb-e-Jawahar Moallif, Habb-e-Jawahar Moallif Khas, Habb-e-Kafoor Marwareedi, Habb-e-Lulavi, Habb-e-Tafoon Qawi, Habb-e-Tafoon Jawhar Wali, Habb-e-Yaqoot²⁵, Habb-e-Kafoor, Qurs Shifa Hindi²⁶, Habb-e-Jawahar, Khamira Gaozaban Ambari Jawahar Wala, Khamira Marwareed Khas, Qurs Fizza, Kushta Zahar Mohra, Jawahar Mohra²⁷, Habb-e-muqawwi Khas, Qalbeen, Ikseer-e-Atfal, Yashabi, Khamira Zahar Mohra, Jawarish Amla Lulavi, Kushta Sadaf, Zehbi, Nawed-e-Nau²⁸.

Conclusion:

In Unani Medicine a quite number of mineral origins drugs are used to treat different ailments. *Hajar ul Yahooor* is popular for treating urinary stones²⁹. *Kibreet* is considered a good blood purifier³⁰. The calx prepared from *Abrak* is beneficial to treat respiratory diseases³¹, while preparations of *Samm ul Far* are used to treat sexual disorders, skin disorders, anaemia and fevers³². *Zahar Mohra* is considered

as an antidote for various poisoning since ancient times. Unani scholars have mentioned *Zahar Mohra* as antipyretic for epidemic fever, so it may be evaluated for its action in pandemic fever of COVID-19. It is one of the main ingredients of various important Unani formulations. Adulteration in mineral drugs is a big issue, for identification of good quality material standards have been laid down. Most of the Unani Scholars are of the view that *Zahar Mohra* does not have toxic effects. It is the need of the hour to evaluate its efficacy on epidemic diseases on scientific parameters. This review will help researchers for further studies of *Zahar Mohra*.

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