



## Research Article

ISSN 2320-4818

JSIR 2015; 4(4): 191-192

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Received: 13-08-2015

Accepted: 04-09-2015

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## **Gandhak (Sulphur) and its medicinal importance described in Unani Medicine: Mini review**

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### Abstract

Sulphur is a non metal element which commonly known as *Gandhak*. It occurs in the nature in the form of pure sulphur, sulphides and sulphates. It plays an imperative role for the maintains of health as skin, connective tissues, muscles, bones, teeth and hair, also control the metabolic process which is a key factor for the body. In nutritious substance sulphur is also found such as garlic, onion, fish and beans. Mainly sulphur is used for the cosmetic purposes as treatment of various skin diseases viz; Jarb, Qooba, Kharish, Taqassure Jild, Qarha Muzmina, Busoore Labnia etc. Unani Attiba describe it's uses in classical text under the caption of amraze jildia.

**Keywords:** Gandhak, Amraz-e-Jildiya, Sulphur, Unani Medicine.

### Introduction

Sulphur or Sulfur is an essential element for all life support, and is extensively used in biochemical processes. In metabolic reactions, sulphur compounds serve as both fuels and respiratory materials. Sulphur in organic form is present in the vitamins biotin and thiamine, the latter being named for the Greek word for sulphur. Disulfide bonds are largely responsible for the mechanical strength and insolubility of the protein keratin, found in the outer skin, hair, and feathers, and the element contributes to their pungent odour when burned [1]. Sulphur is sometimes taken orally and most of the time used as topically to help treat a wide range of medical conditions. Topical applications of sulphur as ointments or creams might provide benefits for various skin conditions such as acne, eczema or psoriasis [2].

Sulphur is the 6<sup>th</sup> most plentiful mineral in breast milk and the 3<sup>rd</sup> most copious mineral based on percentage of total body weight, which are the main components of sulphur containing amino acids (SAAs) are methionine, cysteine, cystine, homocysteine, homocystine, and taurine. Dietary SAA analysis and protein supplementation may be indicated for vegan athletes, children, or patients with HIV, because of an increased risk for SAA deficiency in these groups [3].

Parcell S reported that, Methylsulfonylmethane (MSM), a volatile component in the sulfur cycle, is another source of sulfur found in the human diet. Increases in serum sulfate may explain some of the therapeutic effects of MSM, DMSO, and glucosamine sulfate. Organic sulfur, as SAAs, can be used to increase synthesis of S-adenosylmethionine (S-AdoMet), glutathione (GSH), taurine, and N-acetylcysteine (NAC). MSM may be effective for the treatment of allergy, pain syndromes, athletic injuries, and bladder disorders. Other sulfur compounds such as SAME, dimethylsulfoxide (DMSO), taurine, glucosamine or chondroitin sulfate, and reduced glutathione may also have clinical applications in the treatment of a number of conditions such as depression, fibromyalgia, arthritis, interstitial cystitis, athletic injuries, congestive heart failure, diabetes, cancer, and AIDS [4].

Sulphur has been used as medicament since antiquity for the purpose of scabidical, insecticidal, fungicidal and purgative properties [5].

The discovery of sulphonamide (organo sulphur compounds) as an antibacterial drug by a German scientist, Gerhard Domgk, marks an important milestone in the development of medicinal chemistry [6]. Unani Attiba mutabique Gandhak rooh aur khilt ko lateef aur tahleel krti hai [7].

### **Mutraddifat (synonymous):**

Arabic-Kibreet, Persian-Googard, Hindi-Gandhak, English-Sulphur [7-10]

### **Mizaj (temperament):**

Haar Yabis at 3<sup>rd</sup> Degree but according to Ibn Sina, Har Yabis at 4<sup>th</sup> Degree [7-10].

### **Mudabbar (Detoxifying):**

One part of Gandhak Amlasar and two parts of Raughan (Ghee) are taken in a Kadeha (laddle) and kept on a low fire. When Gandhak is melted, four parts of the milk is added. This process is repeated at least three times changing the fresh Ghee and Milk each time to obtain Gandhak Mudabbar [11].

### **Afa'l (actions):**

Scabicial, Dafe Qurooh, Dafe Ufoonat, Muhallil e Auraam, Jaazibe Ratoobat, Musakhhin, Mulattif, Mudirre Haiz, Musaffi Khoon, MUSAQEEETE Janeen, Muqawwi Baah, Kaasire Riyah Jaali [7-14].

### **Istemaal (uses):**

Kharish Tar, Mudamile Qurooh, Kalf, Nazla, Zukaam, Ribu, Sual Martoob, Yarqaan, Ehtabase Haiz, Sara, Saqeeqah, Wajaul Mafasil, Irqun Nasa, Sakta, Zofe Baah, Hamal ko Saqee Krne main, Aateshak, Suzaak, Juzaam, Amraze Tehal, Falij, Tasannuj, Seel wa Diq, Bawaseer [7-10].

### **Murakkabat (compound formulations):**

Zimade Jarb, Zimae Niqaras, Zimade Aateshak, Roghan gandhak, Habbe Kibreet, Marhame Kibreet, safoofe Mameeran [7, 14-19].

### **Conclusion**

There are large numbers of skin diseases which are mostly treated from conventional sources which based on steroid therapy and required long term treatment. When the drug is stopped than the chance of recurrence is more. Unani scholars described various mineral drugs for the treatment of skin diseases viz; Jarb, Taqassure Jild, Quroohe Muzmina, Naar Farsi, Bars which are time tested and safe treatment. For validity with more safety and clinical convenience a research approach is required. For this scientific work this type of review article will be wheel approach.

### **Acknowledgement**

The author is thankful to all co-authors for their contribution to shaping this article.

**Funding:** Nil

**Competing interests:** Nil

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