



A Critical Review of *Zukam* (Common Cold) in Unani Medicine: Insights from Classical Texts and Modern Applications

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ABSTRACT

Zukam, known as the common cold, is a prevalent respiratory disorder described in detail in Unani medicine. It is considered a result of derangement in the body's temperament (Mizaj), particularly an excess of Balgham (phlegm) and a cold temperament (Barid Mizaj). Unani scholars such as Hippocrates, Ibn Sina, and Razi have classified Zukam into Haar (hot) and Barid (cold) types, each requiring specific treatment. Common therapies include herbal drugs, steam inhalation, and Ilaj bil Ghiza (diet therapy). This review summarizes the causes, symptoms, classifications, and Unani management strategies of Zukam, with emphasis on traditional formulations that enhance immunity and offer symptomatic relief.

Keywords: Zukam, Unani medicine, Mizaj, Balgham, Haar wa Barid, Ilaj bil Ghiza, herbal therapy, common cold.

1. INTRODUCTION

The common cold is a prevalent infectious syndrome characterized by rhinitis, pharyngitis, nasal stuffiness, sneezing, and cough¹. Caused by various airborne viruses like rhinoviruses, adenoviruses, influenza viruses, parainfluenza viruses, respiratory syncytial viruses, enteroviruses and coronaviruses^{1,2,3}, it typically lasts 2-3 weeks with an incubation period of 1-4 days^{2,3}. Symptoms include low-grade fever, chilly sensations, and watery nasal discharge that can become mucopurulent due to secondary bacterial infection^{2,3}. The common cold diagnosis is based on self-reported symptoms, and treatment is initiated presumptively due to the lack of specific diagnostic criteria for nasal symptoms alone⁴.

The term "*Nazla*" means "to descend", referring to matter dripping from the brain to the throat or nose. "*Zukam*" describes nasal discharge towards the anterior nasal opening, while *Nazla* describes discharge towards the throat and chest area⁵. Ibn Sina in "*Al Qanoon Fit Tibb*" considered *Nazla* wa *Zukam* as two separate disease entities. *Nazla* Haar, a type of *Nazla*, is extensively described in terms of its causes, symptoms, and treatment^{5,6,7,8,9}. According to him, both *Nazla* and *Zukam* exhibit a

complex state, i.e., the falling of madda from the brain^{5,10}.

Abul Hassan Ahmed Bin Mohd Tabri describes Zukam as an "Ihteqaq" (accumulation) of "Bukharat" (vapours) in the "Quwwatul Dimagh" (brain's ventricles), which then gets dissolved and exits through the nostrils, eyes, and ears¹¹.

According to Buqrat, Zukam refers specifically to *Nazla* affecting the nasal mucosal lining, marked by inflammation and excessive discharge, whereas *Nazla* is a more general condition involving similar symptoms^{12,13}.

Unani physicians largely use *Nazla* and Zukam interchangeably, though some distinguish between them. Both conditions involve madda dripping from the brain^{5,6,10}, with *Nazla*'s matter being either hot and thin or cold and viscous in nature¹⁰.

Nazla Haar is characterized by watery, irritating nasal discharge dripping towards the throat, accompanied by burning sensation (sozish) in the nose, face, and eyes, lacrimation, and impaired sense of smell¹⁰.

Allama Nafees Bin Auz Kirmani and Hakeem Mohd Akbar Arzani, renowned Unani scholars, associated *Nazla* and Zukam with symptoms like coryza and catarrh. They described *Nazla* as a downward flow of mucus from the head, characteristic of respiratory conditions. Both scholars provided insights into the conditions, with Arzani distinguishing between *Nazla* and Zukam, aligning with previous medical understanding¹⁴.

1. Epidemiology

The common cold is a highly prevalent illness affecting people of all ages, with significant socioeconomic costs and healthcare burdens^{15,16}. Rhinoviruses are the primary cause, accounting for 40% of cases, followed by RSV, Influenza, Adenovirus, and Coronavirus. Transmission occurs through hand contact, small-particle aerosols, and direct hit by large-particle aerosols^{16,17,18,19}. In the US, the common cold leads to substantial economic burdens, including \$17 billion in direct costs and \$25 billion in indirect costs annually^{20,21,22}. In India, respiratory infections are a significant health burden, with 41,996,260 cases and 3,740 deaths reported in 2018. RSV, Influenza, and Rhinovirus are common causes, exhibiting distinct seasonal patterns and regional variations. Effective prevention and

management strategies are crucial to mitigate the impact on public health and the economy. Understanding the epidemiology of these viruses is essential for developing targeted interventions and diagnostics to reduce their incidence and impact. Recent advances in viral detection have highlighted the need for effective management and prevention strategies to reduce the burden of common cold viruses and their complications. Implementing these strategies can help alleviate the significant healthcare and economic burdens associated with respiratory infections^{22,23}.

2. Concept of Zukam wa *Nazla* Haar

Hippocrates (460-377 BC) is likely the first to describe the common cold (*Nazla* va Zukam), including its causes, types, and treatment. Later, Ibn Sina (980-1037 AD) detailed its etiology, types, symptoms, and treatment in "Al Qanoon Fit Tibb," a medical encyclopedia that was a standard textbook in Europe until the 17th century⁵.

Abu al Hassan Ahmad Bin Jurjani (12th century AD) described *Nazla* as a condition characterized by watery, irritating nasal discharge that drips down towards the throat. He distinguished Zukam as a similar condition where the discharge flows through the nose with a burning sensation¹⁰.

Azam Khan (1813 AD) and Allama Hakeem Mohd Kabeeruddin (1889-1977 AD) viewed *Nazla* and Zukam as interconnected, tracing their origin to the brain's waste products. They attributed both conditions to the downward flow of pathogenic matter (madda), suggesting a common underlying cause²⁴.

3. Pathophysiology

The term "Zukam" describes the accumulation of catarrh (bukharat) in the brain's ventricles, leading to a melting and discharge of stagnant material through the nostrils, eyes, or ears. If neglected, this buildup can spread to the chest and lungs, potentially affecting other parts of the body. This concept of "Zukam" is connected to various respiratory issues, including the common cold, emphasizing the need to address this accumulation to prevent further issues. It is not necessary that a person is only afflicted with Zukam, but it can also transform into other types of diseases. These

diseases can be related to the dominant temperament and the material cause of the disease. When it settles in the brain, it can lead to various bodily symptoms¹¹.

When the waste material (fuzlat) of the brain flows through the nasal passages, it is called *Zukam*. If it flows towards the chest, it is called *Nazla*. These are serious diseases, if not treated promptly, they can lead to discomfort and difficulty. Additionally, other types of diseases can arise from them, for example, eye diseases, nose and ear problems, throat and lung diseases, cough, cold, and respiratory diseases, as well as joint pains, etc. can arise due to *Nazla* and *Zukam*. According to modern doctors, *Zukam* is a type of warm Haar that occurs in the mucous membrane of the nose. If it reaches the throat, it is called *Nazla*¹².

The common cold's pathophysiology involves a complex interplay between the host's immune system and the infecting virus, typically rhinovirus. Upon entering the nasopharynx, the virus binds to epithelial cell receptors, triggering an inflammatory response via NF-κB-dependent mechanisms²⁶. This response leads to symptoms like increased blood flow, fluid leakage, and stimulation of pain nerves and cough reflexes. Notably, rhinovirus causes minimal cell damage, with symptoms primarily resulting from the host's inflammatory response^{27,28}. The virus disrupts the epithelial barrier function, increasing susceptibility to secondary bacterial infections. The autonomic nervous system plays a key role in responding to the infection, and most cases resolve without treatment within two weeks²⁹.

4. Etiology

In Unani medicine, disease is believed to arise from an imbalance of humors (Akhlāt) either qualitatively or quantitatively. This imbalance can be caused by various factors, including:

1. According to Ibn Sina, individuals with a hot temperament ((intrinsic factors)) Su-i-Mizaj Haar are more prone to developing *Nazla* Haar due to their inherent imbalance of humors, which can lead to excessive heat and moisture in the body, making them susceptible to catarrhal conditions like *Nazla* Haar wa *Zukam*⁸.

2. Extrinsic factors (Asbabe kharija): hararat mizaj, hararate mizaj khaas, uncovered head, exposure to sunlight, fire, garam hamam, working in hot environment, applying pungent odour perfumes or smelling/ snuffing of hot drugs such as mushk, jundbadastar, zafran, onion etc. massaging the head with hot oils or usage of warm hair oils, sleeping immediately after food, consumption of hot things like garlic, onion, mustard etc., bathing after exercise followed by improper wrapping, or strenuous psychic or physical activity; and also exposure to allergens like pollen, cotton fur, feather, dust^{5,8,9,10,11,25,30,31}.

3. Samarqand identifies 8 causes of *Nazla*: 4 due to Su-i-Mizaj (temperamental imbalance) of the brain and 4 related to Akhlāt-e-Arba (four humors). These imbalances lead to the development of *Nazla*, a catarrhal condition affecting the nasal passages and respiratory system⁸.

4. *Nazla* and *Zukam* often result from a combination of intrinsic factors (e.g., Su-i-Mizaj, humoral imbalance) and extrinsic factors (e.g., environmental exposures, lifestyle habits). The interplay between these factors can lead to the development of these conditions^{8,10}.

Further, it is caused by Sue mizaj haar⁸, Sue mizaj of brain⁹, Zoafe dimagh²⁵, imtilae aam va raas (plethora of body and head)^{8,31}, Tukhma⁸, Infealate nafsania^{8,25} and Seasonal variation²⁵.

5. Clinical features

The common cold (*Zukam*) presents with nasal, throat, and respiratory symptoms, varying in severity and duration. Symptoms can differ significantly between individuals, and the clinical presentation is often non-specific, making diagnosis based on symptoms alone challenging. Nasal symptoms are typically the most prominent. Common cold symptoms include Nasal discharge (rhinorrhea)^{1,3,5,6,8,14,25}, sneezing^{1,3,25,33}, nasal stuffiness (nasal congestion)^{5,9,25}, sore throat^{5,8,9,10,25}, cough^{1,2,33}, hoarseness^{1,3,33},

headache³³, lethargy³³, malaise³³, myalgia³³, chill, low-grade fever^{3,33}, burning sensation^{6,14}, Nabz – Azeem, Saree', wa Mutawatir to touch (Malmas Haar)^{5, 7,8,33}, and yellowish urine (Qarura)^{5,8,33} are common symptoms of the common cold, varying in severity and impact.

6. Types

In Unani literature, two main categories of *Nazla -o- Zukam* (COMMON COLD) are described, classified based on the involvement of temperament (mizaj) and matter (madda)^{6,24,34,35}.

1 *Nazla -o- Zukam Har*

2 *Nazla -o- Zukam Barid*

Apart from the above, some other types of *Nazla -o- Zukam* are

3). Aetiological types

3.1 Based on madda^{11,35}

- Zukam damwi
- Zukam safrawi
- Zukam balghami
- Zukam sawdavi

3.2 Based on factors^{25,36}

- Zukam due to Asbabe kharija (extrinsic factors)
- Zukam due to Asbabe dakhila (intrinsic factors)

4) Based on duration of illness and intensity of symptoms^{8,36}

a) *Nazla -o- Zukam Haad* (Acute)

b) *Nazla -o- Zukam Barid* (Chronic)

c) *Nazla Wabaiyah* (Unani physicians consider *Nazla Wabaiyah* as the third type of *Nazla -o- Zukam*)^{25,36}

7. Complications associated with Zukam (Common cold)

The common cold (Zukam) is linked to various complications, including otitis media (AOM)^{3,37}, asthma¹ and COPD exacerbations³⁸, acute bacterial sinusitis³, and increased risk of pharyngitis³, sinusitis³, tonsillitis, bronchitis, pneumonia (Zaturriya)^{5,10}, pleurisy (Zatuljenb)^{5,6,9,10}, stomachache (Darde medda)^{5,8,10}, insomnia³⁹ and ear-related issues like Eustachian tube dysfunction^{3,32,37} and otalgia^{3,32,37}.

8. Diagnosis

Diagnosing Zukam (common cold) relies on clinical presentation and assessment, but overlapping symptoms and age-related challenges require careful evaluation to distinguish viral from bacterial infections and ensure proper treatment^{1,3,32,40}.

Differential diagnosis:

Differential diagnosis for Zukam includes *Nazla Barid*^{5,8}, *Nazla Haar*⁵, Allergic Rhinitis³², Vasomotor Rhinitis³², Intranasal Foreign Body³², and Acute Sinusitis³², each with distinct symptoms and characteristics.

9. Preventive Measures

- Avoid daytime napping and sleep on your back²⁵, and refrain from sleeping immediately after meals⁸.
- Limit your food and beverage quantities^{6,8,25}
- Avoid intense physical exertion or strenuous activities⁸
- Avoid harsh weather conditions, including intense sun, hot air, and cold water
- Samaghe Suddab and Rai should be applied to the scalp as soon as possible after bathing⁶
- Avoidance from Ghaleez, Lesdaar, and delayed digestible foods, including meat, alcohol, onion, garlic, tea, Akhirot, Pista, and sour things like milk and curd, which are similar to Ghaleez and Saeel Ghiza²⁵. However, if you feel weakness in the body, you can use Ratab Gosht (chicks with meat) and curd in moderation⁸.
- Physical interventions are crucial in preventing the transmission of Upper Respiratory Tract (URT) viruses, which spread primarily through direct contact, airborne particles, and aerosols. Simple yet effective measures include⁴¹

- Thorough hand washing, which is more effective than ethanol sanitizer⁴¹
- Minimizing finger-to-nose contact to prevent auto-inoculation⁴¹.
- Implementing transmission barriers: isolation, wearing PPE like masks, gloves, and gowns to prevent spread of infection effectively⁴¹.
- Consume seasonal fruits and khushboodar snuff in moderation, avoiding excessive intake²⁵
According to Zakaria al Razi and Jalinoos, cupping over the nape of the neck is advisable for itching in the nose and sneezing⁶.

Initial stage: adopting symptomatic measures:

- To expel madda or mucus^{8,33}, induce Inkibab with herbs like Banafsha, Nilofar, Nakhuna, and Babuna⁸, and use nasal tents (Fateela) to redirect mucus flow^{8,33}.
- Lateef ghiza like maushaeer⁹
- Munzijat⁹
- Fasd is advisable if damavi khilt is involved followed by mushilat⁹
- Hammam with lukewarm water⁹ is advised as a preparatory step before munzijat⁶
- Sniffing lukewarm Shoneez and Zeera is advisable⁹.
- Avoid using medicines to suppress sneezing, as this may disrupt the natural expulsion of mad'da, leading to accumulation of fuzlat in the brain⁸.

10. Line of Treatment (Usoole Ilaj)

Accurate diagnosis is crucial for effective Zukam treatment. Avoiding triggers helps, but comprehensive therapy is often necessary. Common cold treatment remains largely supportive, with limited progress¹.

1) Izale sabab (Elimination of the cause):

Eliminate exposure to heat and cold, addressing both intrinsic and extrinsic factors, to prevent worsening of symptoms and promote recovery.

2) Correction of Sue mizaj:

1. Modulate Su-e-Mizaj Sada with appropriate regimen, Barid Makulat va Mashrubat, Roghaniyat, Nutulat, Zimadat, Quturat, and other Unani therapeutic measures
2. Sue mizaj mad'di should be corrected through munzijat followed by Tanqia⁸

3. Ta'deele mizaj

4. Tadabeer

Apply Inkibab (steam inhalation), Takmeed (fomentation), Fasd (venesection), and appropriate oils for Qutoor (nasal drops) to restore equilibrium

5. Ghiza

Avoid foods that are Ghaleez, Lesdaar, and slow-digesting like Meat, Alcohol, Onion, Garlic, Mustard, Tea, and Pista, and also steer clear of sour substances like Milk, Curd, and Saqeel Ghiza.

6. Muqawwiyyate dimagh wa med'da²⁴

Common single drugs used in Zukam are^{9,11,25}:

Banafsha, Behidana, Unnab, Sapistan, Asalussoos, Aalubukhara sheerin, Turanjabeen, Tukhme khitmi muqashar, Kishneez khushk, Barg wa gule aazad, Gulab sufaid, Injeer siyah, Maghze khiyar shamber, Sheere tukhme kahu muqashar, Sheere maghze kaddu, Maghze badam.

Compound drugs used in Zukam are^{9,11,25,33}:

Sharbate banafsha, Sharbate khashkhash, Khameere khashkhash, Laooqe Sapistan, Laooqe khashkhash, Luabe Behidana, Sharbate Unnab, Habbe shifa, Khameere gauzaban, Triyake *Nazla*, Sharbate fardiyaris.

Drugs used in modern medicine for Zukam

1. Antihistamines^{3, 42, 43}
2. Decongestants^{3, 42, 43}
3. Intranasal and systemic steroids^{42, 43}
4. Parasympathetic blocking Agent^{42, 43}
5. Nonsteroidal anti-inflammatory drugs (NSAIDs)^{3, 42, 43}
6. Immunotherapy⁴²
7. Nasal saline irrigation^{3, 43}

11. Conclusion

The Unani literature provides an in-depth analysis of Zukam, attributing its pathogenesis to humoral imbalance, especially dominance of Balgham and altered Mizaj. Symptoms include sneezing, nasal discharge, sore throat, headache, and general fatigue. Based on the type (Haar or Barid), specific treatment approaches are followed. The management primarily involves the use of various Unani drug forms such as decoctions (Joshanda), syrups (Sharbat), electuaries (Laoq), pills (Habbe), powders (Safoof), and regimenal therapies like steam inhalation and nasal drops. These forms are tailored to restore balance and relieve symptoms effectively. The literature emphasizes that these traditional formulations, combined with diet and lifestyle management, offer a holistic and sustainable method for treating Zukam.

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