

Unani Perspective of Sinusitis (Iltihab e Tajaweef e Anaf): A Literary Review

Dr Aliya Fareed Nowshahri

Associate Professor & HOD Kuliyaat Kashmir Tibiya College Hospital and Research Centre
Sonawari, Shilvath Bandipora Kashmir (J&K, India) University of Kashmir, India

Abstract: Sinusitis refers to an inflammatory condition involving the four paired structures surrounding the nasal cavity. In Unani system of medicines according to the father of medicines Buqrat [Hippocrates] the nazla is the condition in which the nasal mucosa gets inflamed and always associated with excessive nasal discharge, while zukam is a nazla of nasal mucosal lining. It is estimated that 6 to 13 percent of children will have had one case of acute sinusitis by the age of three years. It is the 5th leading diagnosis for which antibiotics are prescribed. In USA the prevalence of sinusitis is estimated to be 14 percent of the global population. Most of the Unani scholars have given both extrinsic [external environmental factors] and intrinsic [factors with in human body] responsible for sinusitis. The important causes of sinusitis are allergic rhinitis and viruses [rhinovirus, parainflunza virus and infulnza virus]. Pain on respected sinus sites headache and postal nasal drip are major symptoms. The main stay of treatment for acute sinusitis is symptomatic relief and analgesics. Line of treatment in Unani medicines should be started with Izale sabab, ilaj bil ghiza, Ilajbil tadbeer and then ilaj bil dawa.

Keywords: Sinusitis, Nazla, Zukam, Rtoobat, Phlegm, Batan

1. Introduction

Sinuses are hallow spaces in the bones around the nose that connect to the nose through small, narrow channels. The sinuses stay healthy when the channels are open, which allows air from the nose to enter the sinuses and mucus made in the sinuses to drain in to the nose.⁽¹⁾ Sinusitis refers to an inflammatory condition involving the four paired structures surrounding the nasal cavity. Each sinus is lined with a respiratory epithelium that produces mucus which is transported out by ciliary action through the sinus ostium and in to the nasal cavity.⁽²⁾

Sinusitis also known as sinus infection or rhino sinusitis is inflammation of sinuses resulting in symptoms.⁽³⁾ In Unani system of medicine no direct description is available but symptoms up to a greater extent are similar to nazla and zukam⁽⁴⁾

Most of the great Unani scholars / physicians have difference of opinion. According to the father of medicines Buqrat [Hippocrates] the nazla is a condition in which the nasal mucosa gets inflamed and always associated with excessive nasal discharge while zukam is a nazla of nazalmucosal lining.⁽⁷⁾ According to the eminent Unani scholar Samerqandi, Zukam is that condition in which the phlegm is dripping in to the throat and nazla is a condition in which phlegm dripping to the nasal cavity⁽⁸⁾. Another Unani scholar Gulam Geelani stated that the term nazla is derived from arabic term Nazool which means to descend.⁽⁹⁾ Ibn Sina in his treatise "Alqanoon Fit Tib", considered nazla wa zukam as two separate disease entities. According to him both nazla wa zukam exhibit the complex state i.e falling of madda from the brain⁽⁹⁾. Hakeem Abdul Hassan Bin Ahmmad Tabri and Ali Abni Abbas Majoosi had also defined zukam as a condition associated with collection of ratoobat [secretions] from batan [ventricles] and jauf [cavity of brain] and this ratoobat discharges from eyes, ears and nostrils.⁽¹⁰⁾

Etiology

- 1) When the sinus ostia are obstructed.
- 2) When the ciliary clearance is impaired or absent.

The secretions can be retained, producing the typical signs and symptoms of sinusitis. Retained secretions may become infected with a variety of pathogens including bacteria, viruses and fungi.⁽²⁾

Unani Causes and Factors of Sinusitis

Most of Unani scholars have given both extrinsic [external environmental factors] and intrinsic factors [factors with in human body] responsible for sinusitis.

Extrinsic Factors

- 1) Exposure to cold and humid environment.
- 2) Immoderate hot and wet, excessive hot and dry, undue cold and dry environmental conditions⁽¹¹⁾⁽¹²⁾
- 3) The diet that may increase their temperament from moderate to extreme or the diet that may further decrease their temperament from normal to imbalance state⁽¹¹⁾.
- 4) Microbes like bacteria, viruses, fungi etc come under the heading of extrinsic factors⁽¹³⁾
- 5) Local irritants like pollens, cotton, fur, feathers, dust, grit and soil particles also come under this heading.⁽¹⁴⁾

Intrinsic Factors

- 1) Balmi mizaj [*phlegmatic*] people are more prone to develop the disease by intrinsic factors⁽⁹⁾
- 2) Safravi mizaj people also develop this disease because madda increases the temperature inside the body from moderate to extreme which causes congestion in the brain and the secretions from both the ventricles starts dripping through nose⁽⁸⁾
- 3) People with damvi and sodavimiazaj rarely fall in this disease⁽⁸⁾

2. Prevalence

It is the 1st leading diagnosis for which antibiotics are prescribed⁽²⁾. More than 20 million cases of acute sinusitis of viral or bacterial etiology are diagnosed in US each year across all age groups, affecting an estimated 16 percentage of the adult population and resulting in almost 12 million office visits per year⁽⁵⁾. Approximately 0.5% to 13% of viral upper respiratory tract infections progress to acute bacterial sinusitis. It is estimated that 6% to 13% of children will have had one case of acute sinusitis by the age of three years. School age children on an average have 6 to 8 times upper respiratory tract infections per year and of these 5% to 10% are complicated by sinusitis⁽⁶⁾. In USA the prevalence of sinusitis is estimated to be 14 % of the global population⁽¹⁶⁾. In USA chronic sinusitis accounted 24 million patient visits in 1992⁽¹⁶⁾.

Epidemiology

Major Public Health Problem

Globally India

More than 37 million Americans have An estimated 134 million Indians suffer at least one episode of sinusitis a year, from chronic sinusitis

Chronic rhino sinusitis is rising in USA

16 million visits to doctors in 1989 attributed to disease
24 million in 1992⁽¹⁷⁾

Sinusitis is typically classified by duration of illness [Acute vs. Chronic];and when infectious by offending pathogen type [Viral, Bacterial or Fungal]⁽²⁾

Acute Sinusitis

Defined as sinusitis of less than 4 weeks duration constitutes the vast majority of sinusitis cases (2). The duration of the condition should be determined suspect acute sinusitis in any patient with an upper respiratory tract infection that persists beyond 7- 10 days particularly if the infection is severe and is accompanied by high fever purulent nasal discharge or periorbital oedema (18).It is defined as acute - rhino sinusitis if it lasts less than four weeks and as chronic rhino sinusitis if it lasts for more than 12 weeks (3).

Acute sinusitis is generally a complication of acute rhinitis and rarely secondary to dental sepsis. The ostia are occluded due to inflammation and edema and the sinuses are full, mucocoele is filling up of the sinus with empyema of the sinus occurs due to collection of puss^{(2), (5)}. Acute inflammation of sinus mucosa is called acute sinusitis. The sinus most commonly involved is the maxillary sinus followed by ethmoid, frontal and sphenoid, very often more than one sinus is infected, [multi sinusitis]. Sometimes all the sinuses of one or both sides are involved simultaneously [pansinusitis unilateral or bilateral] (19).

Chronic Sinusitis

Chronic sinusitis is characterized by symptoms of sinus inflammation lasting more than 12 weeks. It may start suddenly as an upper respiratory tract infection or acute sinusitis that does not resolve, or emerge slowly and insidiously over months or years^{(2), (11)}. A third form of

disease known as allergic fungal sinusitis is seen in patients with a history of nasal polyposis and asthma⁽²⁾.

Etiology

Noninfectious causes include

- 1) Allergic rhinitis [with mucosal oedema or polyp obstruction]^{(25), (22), (2), (3)}.
- 2) Barotrauma [eg from deep sea diving or air travel]^{(25), (2), (2), (3)}.
- 3) Chemical irritants.
- 4) Nasal and sinus tumours.
- 5) Granulomatous diseases.^{(2), (19)}
- 6) Nasal packing.
- 7) Deviated septum.
- 8) Hypertrophic turbinates.^{(19) (22)}
- 9) Nasotracheal intubation is a major risk factor for nasocomial sinusitis in intensive care units.

Infectious Causes Include

- 1) Viruses [Rhinovirus, Para Influenza virus, Influenza virus]⁽²²⁾
- 2) Bacterial [S.pneumoniae and lipable Hemophilus] accounting for 50 to 60 percent of cases^{(20), (21), (18), (22)}.
- 3) Moraxella catarrhalis causes disease in a significant percentage [20%] of children but
- 4) Less often in adults⁽²⁰⁾.
- 5) Dental infections from the molar or premolar teeth or their extraction may be followed by
- 6) by acute sinusitis⁽²⁴⁾.

Predisposing Factor

Environmental:-sinusitis is common in cold and wet climate. Atmospheric pollution, smoke, dust and overcrowding also predispose to sinus infections¹⁹. Poor general health, recent attack of exanthematous fever [measles, chicken pox, whooping cough], nutritional deficiencies, systemic disorders [diabetes, immune deficiency syndrome]^{(2), (19), (25)}.

Clinical Features

Depends on severity of inflammatory process and efficiency of ostium to drain the exudate.

Constitutional Symptoms in Acute Sinusitis

- 1) Fever, General malaise and body ache^{(2), (29), (19)}.
- 2) Headache:-

2.1 Maxillary Sinus:- Headache is confined to forehead and thus be confused with frontal sinusitis^{(2), (19), (24)}.

2.2. Frontal Sinus: Headache is usually severe and localized over affected sinus. It shows characterized periodicity i.e. comes up on waking, gradually increases and reaches its peak by about mid day and then starts subsiding. It is also called office headache^{(19), (2), (21)}.

2.3 Sphenoid Sinus: Headache is usually localized to the occiput or vertex^{(19), (2), (24), (21), (18)}.

3. Pain

3.1. Maxillary Sinus: Typically it is situated over the upper jaw, but may be referred to the gums or teeth. Pain is aggravated by stooping, coughing or chewing.

3.2 Frontal Sinus: Pressure upwards on the floor of frontal sinus just above the medial canthus, causes pain.

3.3 Ethmoidal Sinus: It is localised Over the bridge of the nose, medial and deep to the eye. It is aggravated by movements of the eye ball^{(19), (12), (24), (22), (20), (18)}.

4. Post Nasal Discharge

4.1 Maxillary Sinus: Anterior rhinoscopy shows pus or mucopus in the middle meatus.

4.2 Frontal Sinus: A vertical streak of mucopus is seen high up in the anterior part of the middle meatus.

4.3 Ethmoid Sinus: On anterior rhinoscopy pus may be seen in middle or superior Meatus. Depending on the involvement of anterior or posterior group of ethmoid sinuses^{(2), (19), (23), (18), (21)}.

5. Oedema of Upper Lid

5.1 Maxillary Sinus: Redness and oedema of cheek commonly seen in children, the lower eyelid may become puffy.

5.2 frontal Sinus: Odema of upper eyelid with suffused conjuction and photophobia^{(7), (2), (19)}.

5.3 Ethmoid Sinus: Both eyelids become puffy and swollen.

Constitunal Symptoms in Chronic Sinusitis

- 1) Nasal obstruction, Blockage, Congestion and stuffiness.
- 2) Nasal discharge [of any character from thin to thick and from clear to purulent]^{(16), (20)}.
- 3) Post nasal drip.
- 4) Facial fullness, discomfort, pain and head ache.
- 5) Chronic unproductive cough.
- 6) Hyposmia or Inosmia.
- 7) Sore throat.
- 8) Malaise.
- 9) Fotid breath^{(19), (2), (9), (16)}.
- 10) Anorexia.
- 11) Dental pain.
- 12) Visual disturbance.
- 13) Sneezing.
- 14) Stuff ears.
- 15) Impleasent taste.
- 16) Fever of unknown origin^{(23), (19), (2), (9), (16)}.

Management

Patient should not be prescribed antibiotics routinely or a delayed antibiotic prescribing strategy could be employed. Antibiotics should be reserved for patients who are systemically unwell; symptoms are persistent beyond ten days^{(2), (19), (6), (22)}. Worsening of symptoms after 5 days, or in those with severe symptoms after this time period [clinically severe local pain, fever and discoloured discharge^{(22), (25)}.

6. Treatment

Intial Therapy:

Moderate symptoms: Amoxicillin 500mg tid
For e.g. purulence /congestion and cough for more than 7 days.

Severe Symptoms of any duration including Amoxicillin 1000 mg tid

Unilateral I / focal facial swelling or tooth ache Amoxicillin /Clavunate 200 mg bd^{(26), (27), (2)}

Unani Treatment

USOOLE ILAJ:- [Line of treatment]

USOOLE ILAJ is divided into following:

- 1) Izale Sabab:- [Elimination of the cause]. Eliminate the basic cause whether it is extrinsic or intrinsic.
- 2) ILAJ BIL GHIZA:- Avoid oily, ghaleez and delayed digestible foods like meet. Avoid sour things like curd, tomatoes etc.
- 3) ILAJ BIL TADBEER:-
 - 1.1 FASAD [venesection]
 - 1.2 ISHAL [mushilat]
 - 1.3 TAKMEED [fomentation]
 - 1.4 QUTOOR [nasal drops]
 - 1.5 SNEEZING [luke warm shoneez and zeera]
 - 1.6 TADEELE MIZAJ [sue mizaj sada should be corrected]
 - 1.7 SUE MIZAJ MADDI should be corrected through tanqia fallowed by munzijat.
 - 1.8 USE MUQAWIYATE DIMAGH WA MEDA DRUGS.^{(29), (8)}

Single drugs for Sinusitis

- 1) SAPISTAN [cardolia latifolia]
- 2) UNNAB [ziziphus jujuba]
- 3) BEEHIDANA [cydona oblanga]
- 4) GAOZABAN [borage officinalis]
- 5) KHAKSI [sismbrium lotus]
- 6) TUKHM KHASHASH [papaver]
- 7) POST KHASHASH [sommiferous seeds]

Compound Drugs [Murakabats]

- 1) Itrifil ustakhudoos
- 2) Sharbat banafsha
- 3) Sharbat gaozaban
- 4) Laooq sapistan
- 5) Habi shifa

7. Conclusion

In this systemic review, I present information that most of people having balgami mezaaj are prone to develop this disease. Herbal treatment is recommended over other methods to treat all types of sinusitis

References

- [1] American Academy of Autolaryngology Head and neck surgery AAO-HNSF Practice guideline: Adult sinusitis, April 1, 2015-1:49 pm <https://www.entnet.org>.

- [2] Harrison's principles of internal medicine Fauci. Braunwald. Kasper, Hauser. Longo, Jameson, Loscalzo 17th edition vol.1
- [3] Colledge nr, Walker br, Ralston sh. Davidson's principles and practice of medicine. 21 ed. Edinburgh: Churchill livingstone." 2010
- [4] Benninger SM. 2003. Adult chronic rhinosinusitis: Definitions, Diagnosis, Epidemiology, Pathophysiology. Otolaryngology- Head and Neck surgery. 129 (3): S1-S32.
- [5] Acute sinusitis. <https://online.epocrates.com>. 23 /3 /18. 3pm.
- [6] Acute sinusitis Graham Worrall MBBS MSC FCFP Canadian family physician College of family physician of Canada <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818444/>
- [7] Abu Ali Ibn Sina ... Aqanun fit tib, vol 1 book 3 " Jamia Hamdard New Delhi
- [8] Sharah Asbab Alama Najeebu deen Samar qandi translated by Sheikh Alama Hakeem Kabeerudin Idarah Kitabul Shifa Dariya G unj New Delhi (2009)
- [9] Gulam Jeelani. Makhzanul Hikmat, vol 2 Ijaz publishing house, New Delhi 1996
- [10] Abdul Hassan Ali bin Sahal raban tabri. Firdousul hikmat, Fasal publication New Delhi
- [11] David C. Dale, Daniel d. Federman, acp (American college of physicians) medicines-2001-2005 web md ed. in c publications 2005.
- [12] Abdul Manan, NH Ammar. Moolajat nizan. Tanaffus, 2nd. Muslim educational press. Aligarh; 2002.
- [13] Ajmal Khan, Haziq; beesweemsadi book depot, New Delhi
- [14] Mohammad Ismail Jurjani, Tarjuma Zakheera Khwarzam Shahi vol 6, Neelkishor Lucknow; 1874.
- [15] Ali bin Abbas Majoosi, Kamilussana, Urdu translation by Gulam Hussain Kinturi vol 1 Matab Munshi Nawal Kishore Lucknow 1889
- [16] Epidemiology of chronic rhinosinusitis. [Thorax.bmj.com](http://thorax.bmj.com/content/155/suppl2/s20). <http://thorax.bmj.com/content/155/suppl2/s20>.
- [17] US Census Bureau, 2004. <https://www.census.gov/library/publications/2004/c2k0r001.html>
- [18] Acute sinusitis clinical presentation. <https://emedicine.medscape.com>.
- [19] Diseases of ear, nose and throat (ENT BOOK) Dhingra 5th edition
- [20] Chronic sinusitis: background, Anatomy, Physiology [emedicine. Medscape.com](https://emedicine.medscape.com). articles 232.
- [21] Etiology and anti microbial treatment of acute sinusitis -NCBI. Gwaltney Dm Dr, Sydnor A JR, Sande MA.
- [22] Etiology and anti microbial treatment of acute sinusitis. Gwaltney jm, jr, et al. Ann otol Rhinol Laryngol suppl. 1981 may June.
- [23] ENT Head and Neck diseases Made Easy ANAND, V 2011
- [24] Peterson's Principles of oral and Maxillofacial surgery - (Peterson).
- [25] Journal Expert Review of clinical immunology vol 13, 2017 issue 2 Immune deficiency in chronic rhinosinusitis ; screening and treatment.
- [26] Acute sinusitis treatment and management, updated - mar 10.1.2018 Author: ITZHAK BROOK, MSC.
- [27] Acute sinusitis medication [Acute sinusitis https://emedicine. Medscape. Com article 232.](https://emedicine.medscape.com)
- [28] Sinusitis and its management Kin Wah-See, consultant ENT surgeon and Andrew Sevans, specialist registrar in ENT. [NCBI-NIH https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818444/](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818444/)
- [29] Azam Khan, Alakseer, urdu translation by Hakeem Kabir-ud-din vol 1 Ejaz publications New Delhi 2003.